PERMANENT SOLUTION STATEMENT WITH CONDITIONS

CONDUCTORLAB SITE
430 MAIN STREET
GROTON, MASSACHUSETTS
RTN 2-0000053

Prepared For:

Grimes Aerospace Company, a wholly owned subsidiary of

Honeywell

Honeywell International Inc.
115 Tabor Road
Morris Plains, NJ 07950

Prepared By:

WSP USA Environment & Infrastructure Inc.
100 Apollo Drive, Suite 302
Chelmsford, Massachusetts 01824
Phone: (978) 692-9090
Fax: (978) 692-6633

Project No. 3651220316

March 2023

DRAFT

PERMANENT SOLUTION STATEMENT WITH CONDITIONS

CONDUCTORLAB SITE
430 MAIN STREET
GROTON, MASSACHUSETTS
RTN 2-0000053

Prepared For:

Grimes Aerospace Company, a wholly owned subsidiary of

Honeywell

Honeywell International Inc.
115 Tabor Road
Morris Plains, NJ 07950

Prepared By:

WSP

WSP USA Environment & Infrastructure Inc.
100 Apollo Drive, Suite 302
Chelmsford, Massachusetts 01824
Phone: (978) 692-9090
Fax: (978) 692-6633

March 2023

Reviewed and approved by:

Senior Consultant – Environmental Engineer:_____ Date:
Mykel Mendes

Vice President: _____ Date:
Kim M. Henry, LSP

DRAFT

TABLE OF CONTENTS

EXECUTIVE SUMMARY 1

1.0 INTRODUCTION 1

1.1 SITE LOCATION AND DESCRIPTION 2
1.2 LOCATION AND BOUNDARIES OF DISPOSAL SITE 2
1.3 SITE HISTORY 3
1.3.1 HISTORICAL SITE USE 3
1.4 NATURAL RESOURCE AREAS AND SURROUNDING LAND USE 4

2.0 DISPOSAL SITE HISTORY 6

2.1 REGULATORY BACKGROUND -RTN 2-0000053 6
2.1.1 1986 – ENVIRONMENTAL SITE ASSESSMENT PREPARED BY GZA, 1986 6
2.1.2 1988 TO 1992 – PHASE II COMPREHENSIVE SITE ASSESSMENTS 6
2.1.3 1995 PHASE III REMEDIAL ACTION PLAN & 1995 IV REMEDIAL IMPLEMENTATION PLAN 7
2.1.4 CLASS C RESPONSE ACTION OUTCOME STATEMENT, PREPARED BY EARTH TECH, 1996 9
2.1.5 MAINTENANCE OF THE TEMPORARY SOLUTION – 2001 TO 2020 10
2.2 SUPPLEMENTAL PHASE IV REMEDIAL ACTIONS 12
2.2.1 2015 PHASE IV RIP AMENDMENT 12
2.2.2 2019 PHASE IV RIP AMENDMENT 14

3.0 SITE GEOLOGY AND HYDROGEOLOGY 15

3.1 TOPOGRAPHY 15
3.2 GEOLOGY 15
3.2.1 OVERBURDEN GEOLOGY 15
3.2.2 BEDROCK GEOLOGY 15
3.3 HYDROGEOLOGY 16

4.0 CONCEPTUAL SITE MODEL 17

4.1 SOURCE AND RELEASE OF OHM 17
4.2 ON-PROPERTY EXTENT OF OHM 18
4.2.1 EXTENT OF OHM IN SOIL 18
4.2.2 EXTENT OF OHM IN GROUNDWATER 19
4.3 OFF-PROPERTY MIGRATION OF OHM 19
4.3.1 EXTENT OF OHM IN SOIL 20
4.3.2 EXTENT OF OHM IN GROUNDWATER 20
4.3.3 EXTENT OF OHM IN SEDIMENTS 21
4.3.4 EVALUATION OF VAPOR INTRUSION PATHWAY 24
4.4 EXPOSURE PATHWAYS AND RISKS TO POTENTIAL RECEPTORS 24

5.0 RISK CHARACTERIZATION 26

DRAFT

5.1 SUMMARY OF HUMAN HEALTH RISK CHARACTERIZATION 26
5.2 SUMMARY OF ECOLOGICAL RISK CHARACTERIZATION 29

6.0 REPRESENTATIVENESS EVALUATION AND DATA USABILITY ASSESSMENT (REDUA) 31

7.0 CONDITIONS OF THE PERMANENT SOLUTION STATEMENT 32

7.1 NOTICES RESTRICTING USE OF GROUNDWATER 32
7.2 RESIDUAL CONCENTRATIONS IN GROUNDWATER EXCEEDING GW-2 STANDARDS 32
7.3 ACTIVITY AND USE LIMITATION 34
7.3.1 IMPOSED ACTIVITY AND USE RESTRICTIONS 34
7.3.2 OBLIGATIONS AND CONDITIONS TO THE AUL 35
7.4 RESIDUAL GROUNDWATER CONCENTRATIONS IN THE MAIN STREET PUBLIC WAY 36

8.0 PERMANENT SOLUTION STATEMENT 37

8.1 SOURCE ELIMINATION OR CONTROL 37
8.2 EVALUATION OF FEASIBILITY OF ACHIEVING OR APPROACHING BACKGROUND 37
8.2.1 CONDITIONS OF CATEGORICAL FEASIBILITY IN SOIL 39
8.2.2 CONDITIONS OF CATEGORICAL INFEASIBILITY IN SOIL 40
8.2.3 CONDITIONS OF CATEGORICAL FEASIBILITY IN GROUNDWATER 41
8.2.4 CONDITIONS ACHIEVING OR APPROACHING BACKGROUND FOR PERSISTENT COMPOUNDS IN GROUNDWATER 42
8.2.5 EVALUATION OF INFEASIBILITY CONCLUSIONS 43
8.3 PERMANENT SOLUTION STATEMENT LSP OPINION 44

9.0 REFERENCES 47

FIGURES

Figure 1 Site Location Map
Figure 2 Site Map (Off-Property)
Figure 3 Site Map (On-Property)
Figure 4 Priority Resource Map
Figure 5 Site Boundary Conditions Plan
Figure 6A Regional Groundwater Contour Plan: Shallow/Overburden Wells April 5, 2021
Figure 6B Regional Groundwater Contour Plan: Bedrock Wells April 5, 2021
Figure 7 Surface Soil Sample Locations
Figure 8 Subsurface Soil Sample Locations
Figure 9A On-Property Monitoring Wells TCE/DCE/VC Groundwater Concentrations (2019-2021)

DRAFT

Figure 9B Off-Property Monitoring Wells and Surface Water TCE/DCE/VC Concentrations (2019-2021)
Figure 10A On-Property Monitoring Wells Cr^{+6} and Cr Groundwater Concentrations (2019-2021)
Figure 10B Off-Property Monitoring Wells and Surface Water Cr^{+6}, Cr, and Cu Concentrations (2019-2021)
Figure 11 Bedrock Monitoring Well Groundwater Concentrations

TABLES

Table 1 Groundwater Elevation Data
Table 2 Summary of Compounds Detected in Soil
Table 3 Summary of Compounds Detected in Groundwater
Table 4 Summary of Compounds Detected in Bedrock Groundwater
Table 5 Summary of Compounds Detected in Sediments
Table 6 Summary of Compounds Detected in Surface Water

APPENDICES

Appendix A BWSC 104 Transmittal Form: Permanent Solution Statement
Appendix B Public Notices
Appendix C Method 3 Risk Characterization
Appendix D Activity and Use Limitation Package
Appendix E Ecological Risk Characterization
Appendix F Representativeness Evaluation and Data Usability Assessment (REDUA)

DRAFT

LIST OF ACRONYMS AND ABBREVIATIONS

AWQC	Ambient Water Quality Criteria
bgs	below ground surface
Cr	Chromium
Cr^{+6}	Hexavalent Chromium
Cr^{+3}	Trivalent Chromium
CAPS	Calcium Polysulfide
CAM	Compendium of Analytical Methods
CEP	Critical Exposure Pathway
CMR	Code of Massachusetts Regulations
DCE	1,2-Dichloroethene
ft bgs	feet below ground surface
GER	Grant of Environmental Restriction
GWTS	Groundwater Treatment System
Honeywell	Honeywell International Inc.
ISCO	In-Situ Chemical Oxidation
ISCR	In-Situ Chemical Reduction
MassDEP	Massachusetts Department of Environmental Protection
MCP	Massachusetts Contingency Plan
$\mu g/m^3$	Micrograms per cubic meter
µg/L	Micrograms per Liter
MW	Monitoring Well
OHM	Oil and/or Hazardous Material
PSSWC	Permanent Solution Statement with Conditions
RAO	Response Action Outcome
RTN	Release Tracking Number
SVOCs	Semi-Volatile Organic Compounds
Site	Disposal Site, area where OHM attributable to releases from the historic Conductor Lab manufacturing and industrial activities have come to be located
TCE	Trichloroethene
UCL	Upper Concentration Limit

DRAFT

USGS	United States Geological Survey
VC	Vinyl Chloride
VOCs	Volatile Organic Compounds
Wood	Wood Environment & Infrastructure Solutions, Inc
WSP	WSP USA Environment & Infrastructure Inc.

DRAFT

EXECUTIVE SUMMARY

On behalf of Grimes Aerospace Company f/k/a FL Aerospace Corporation, a wholly owned subsidiary of Honeywell International Inc. (Honeywell), WSP USA Environment & Infrastructure Inc. (WSP) formerly Wood Environment & Infrastructure Solutions, Inc. (Wood) and formerly Amec Foster Wheeler, has prepared this Permanent Solution Statement with Conditions (PSSWC) for the former Conductorlab Property located at 430 Main Street in Groton, Massachusetts (the Property) and assigned Release Tracking Number (RTN) 2-0000053. The term "Disposal Site" or "Site" refers to the portion of the Conductorlab Property and downgradient areas where oil and/or hazardous material (OHM) have come to be located as a result of historical releases. WSP has provided technical assistance to Grimes Aerospace Company and Honeywell with respect to response actions conducted at the Site from 2015 through 2023.

Site Description

The Property is located at 430 Main Street in Groton, Massachusetts, and is situated along the east side of Route 111/119, approximately 0.75 miles north of the center of Groton. It is comprised of approximately 3.2 acres of land and owned by Grimes Aerospace Company f/k/a FL Aerospace Corporation (as depicted on **Figure 1)**. The On-Property portion of the Site is no longer improved by any building structures since demolition of the Groundwater Treatment System (GWTS) building in November 2017. In accordance with the Massachusetts Contingency Plan (MCP) definition, the Disposal Site Boundary contains a portion of the 430 Main Street Property, the Unnamed Brook, and all or portions of sixteen (16) downgradient and Off-Property parcels as depicted on **Figure 2**.

The ground surface topography at the Site is relatively flat but slopes upwards towards the northwest. Groundwater flow direction, in both the overburden and bedrock aquifers, is inferred to be generally to the west towards the Nashua River.

DRAFT

The Unnamed Brook, which is located north of the Property and west of Main Street, is determined to have significant influence on groundwater flow and contaminant migration.

The former Conductorlab facility was originally constructed and operated for the manufacture of printed circuit boards in 1958. From 1958 to 1985, the Property was utilized for several manufacturing processes, including photoengraving, etching (including the use of chromic acid and chlorinated solvents), metal plating (including the use of copper, lead, tin, nickel, and gold), assembly, and inspection of the circuit boards. Chemical and process wastes generated were recycled, discharged to a leach bed northwest of the original building, and/or discharged to the Unnamed Brook located north of the Property. In 1988, the Property was purchased by FL Aerospace Corporation. Pursuant to a Certificate of Amendment filed with the Delaware Secretary of State on June 4, 1991, FL Aerospace Corporation changed its name to Grimes Aerospace Company.

Disposal Site History

During the 1986 preliminary site assessment, a release of VOCs and metals (specifically chromium) associated with historic Property operations and Site uses was identified at the Property. The Site was listed by the Massachusetts Department of Environmental Protection (MassDEP), resulting in the assignment of RTN 2-0000053 to the Site.

From 1986 to 1992, HMM Associates, Inc. (HMM), (the environmental consultant contracted with Grimes Aerospace), conducted several iterative environmental investigations, and prepared associated reports detailing the assessment of soil, groundwater, surface water, and sediments. These investigations revealed elevated volatile organic compound (VOC) concentrations and concentrations of hexavalent chromium in groundwater on the Property and off-Property. Elevated concentrations of heavy metals were detected in surficial soils on Property, and in sediment and surface water as well.

DRAFT

In May 1992, following remedial design activities by HMM, a full-scale groundwater treatment system was installed to remove VOCs, hexavalent chromium (Cr+6) and other heavy metals through electrochemical reduction, clarification, filtration, and carbon adsorption as a final polishing treatment step.

In 1993, approximately 250 cubic yards of contaminated soil and concrete were removed from the former wastewater storage vaults and neutralization vault and disposed of at a RCRA-permitted facility.

In 1995, Notices of Grants of Environmental Restriction (GER) prohibiting use of groundwater individually on ten properties within the Disposal Site were implemented. These GERs restrict the use of groundwater for personal, domestic, or industrial uses until or unless these uses are approved by the MassDEP. The GERs also prohibit the installation of private water supply wells and required destruction of existing private wells.

In February 1996, a Class C Response Action Outcome (RAO) was filed, and an Activity and Use Limitation (AUL) was implemented limiting the Property to industrial and commercial uses with obligations to maintain the existing pavement and building slabs. However, the AUL was retracted in 2006, and from 2007 to 2019 the following primary remedial actions were conducted at the Site: excavation and disposal of contaminated soil, in-situ chemical oxidation (ISCO) and in-situ chemical reduction (ISCR), groundwater treatment system operation and maintenance, and monitoring of impacted media (groundwater, surface water, and sediment).

As a result of the ISCO and ISCR treatments, concentrations of trichloroethene (TCE) and chromium in surface water and groundwater declined demonstrating that remediation was effective at reducing concentrations of TCE and Cr+6 to meet site-specific risk-based closure goals under a Method 3 Risk Characterization.

DRAFT

Nature and Extent of Release

The conceptual site model (CSM) pertains to release(s) of VOCs and metals associated with the historical industrial operations at the Site. The release(s) were not associated with any specific event but resulted in impacts to groundwater, soils, and surface water. The volume of VOCs, semi-volatile organic compounds (SVOCs), and metals (specifically chromium) that were released to the environment is unknown.

The Release impacted groundwater on the Property and migrated off-Property affecting groundwater on downgradient properties. Surface water and sediments in the Unnamed Brook, which flows from northeast to southwest within the Disposal Site, have also been impacted by groundwater discharging to the brook.

Soil

Soil assessment revealed detections of VOCs, SVOCs, and metals within shallow soils on the Property. Impacts extend across the horizontal extent of the Property, with generally higher concentrations of metals in or near the footprints of the former manufacturing buildings. The vertical extent of soil contamination is approximately from the surface to 20 feet below ground surface (ft bgs). Off-Property soil has not been impacted by the Release and is not part of the Disposal Site.

Groundwater

A groundwater plume of VOCs and metals migrated from the southwestern portion of the Property towards the western portion of the Site consistent with groundwater flow in the shallow overburden and bedrock portions of the aquifer. VOCs and metals (specifically TCE and chromium) are the primary contaminants in the plume. Following remediation, TCE and chromium are detected at residual concentrations in the On-Property and Off-Property groundwater, but concentrations are below the applicable groundwater Upper Concentration Limits (UCLs). On-Property groundwater contamination has migrated Off-Property to the west.

DRAFT

Vapor intrusion pathways were assessed at select downgradient occupied residential properties based on nearby monitoring wells with elevated groundwater concentrations. These assessments demonstrated that this pathway is not complete. (The assessed residential properties are listed in section 4.3.5 of this report).

The residual concentrations of VOCs in off-Property groundwater within the Site are above MCP GW-2 groundwater standards (indicating that vapor intrusion may be of potential concern). As indicated above, investigations concluded that vapor intrusion was not occurring on residential properties with occupied structures. For properties where VOC concentrations are above GW-2 standards, but no buildings are present, the vapor intrusion pathway is not currently complete. For these undeveloped properties, a condition of this PSS is to conduct a vapor intrusion evaluation prior to the construction of any occupied buildings, and to mitigate vapor intrusion where needed.

Sediment

As part of earlier assessments, sediment samples were collected from locations in the Unnamed Brook adjacent to the Property and downgradient of the Property. Sediment samples were collected within the top six inches of sediment from the same geographic locations as surface water samples. These samples were collected to establish the downstream disposal site boundary with respect to sediments. TCE and chromium were the only Site-related OHM detected in the sediments. Impacts to sediments are primarily associated with elevated groundwater impact areas, within sections of the Unnamed Brook adjacent to the southwestern portion of the Property and further downstream. An updated Stage II Environmental Risk Characterization concluded that a condition of No Significant Risk to the environment exists for the residual concentrations of chromium and TCE in sediments.

DRAFT

Surface Water

Surface water impacts (total hexavalent chromium and dissolved chromium and copper) are located within portions of the Unnamed Brook adjacent to the northwestern portion of the Property and extend downstream to the intersection of the Brook and Mill Street. These impacts are consistent with the extent of groundwater impacts as well.

Post-remedial surface water concentrations of TCE, chromium and copper were lower than pre-remedial samples and/or were below the Surface Water Quality Standards (SWQSs), ecological screening criteria and are below the no observed effect concentrations (NOECs). Therefore, adverse effects to the aquatic community are not expected to occur and a condition of No Significant Risk of Harm no longer exists for the Unnamed Brook surface water.

Summary of Risk Assessment

A Method 3 Risk Characterization and an updated Ecological Risk Assessment have been conducted to evaluate the risks associated with the current uses and potential future uses of the Property and off-Property areas within the Disposal Site.

For the off-Property areas of the Disposal Site, potentially complete exposure pathways to groundwater, surface water, and sediment were evaluated in the Method 3 Risk Characterization. In summary, current and future foreseeable conditions at the Conductorlab Site are consistent with a condition of No Significant Risk to public welfare, safety, and the environment. However, the following select conditions have been implemented in this PSS to maintain a condition of No Significant Risk:

1. Concentrations in groundwater at the Site are above GW-2 Standards. However, the GW-2 category does not currently apply to most of the Site as there are not any occupied buildings present, except for a few residential properties where investigations have demonstrated that the vapor intrusion is not complete.

DRAFT

If future construction of buildings occurs in undeveloped areas where groundwater concentrations are above GW-2 standards, a vapor intrusion evaluation is required to demonstrate that the vapor intrusion pathway is not complete. If a condition of No Significant Risk cannot be demonstrated, then vapor mitigation measures may be necessary.

2. To maintain a condition of No Significant Risk to human health for other future activities and uses of the Property, an AUL has been implemented prohibiting the following uses of the Property: single-family and multi-family residential use; use of the Property for an elementary or secondary school, kindergarten, preschool, or daycare; active recreational use such as playing fields or a playground; and use for agricultural uses (including gardening for the purposes of growing produce for human consumption).

3. An activity or use identified in the AUL as being inconsistent with maintaining No Significant Risk shall not be undertaken without the prior evaluation by an LSP.

The updated ERC has been prepared under current MCP regulations and risk assessment guidelines and assesses current Site conditions. The ERC concluded that a condition of No Significant Risk of harm to the environment is present in accordance with 310 CMR 40.0995(4)(e), for the following reasons:

- There is no physical evidence of a continuing release of OHM at or from the Disposal Site to surface waters and wetlands that significantly affects Environmental Receptors.

- There is no evidence of biologically significant harm known or believed to be associated with current or foreseeable future exposure of wildlife, fish, shellfish, or other aquatic biota to oil and/or hazardous material at or from the Disposal Site.

- Concentrations of chromium in surface water are less than the Massachusetts SWQS for trivalent chromium.

DRAFT

Conclusion

The sources of contamination for the Conductorlab Site (2-000053) have been eliminated or controlled and all threats of a release have been eliminated. There are no current risks to human health and no current or future risks to public welfare, the environment, or safety at the Site. A level of No Significant Risk, as specified in 310 CMR 40.0900, has been achieved with the implementation of an AUL and conditions to address potential future risks to human health.

It is infeasible to achieve or approach background for soil and groundwater as the costs for further remedial actions are substantial and disproportionate to the additional risk reduction that would be achieved (because a condition of No Significant Risk already exists).

DRAFT

1.0 INTRODUCTION

On behalf of Grimes Aerospace Company f/k/a FL Aerospace Corporation, a wholly owned subsidiary of Honeywell International Inc. (Honeywell), WSP USA, (WSP) formerly, Wood Environment & Infrastructure Solutions, Inc. (Wood) and formerly Amec Foster Wheeler, has prepared this Permanent Solution Statement with Conditions (PSSWC) for the former Conductorlab Property located at 430 Main Street in Groton, Massachusetts (the Property) and assigned Release Tracking Number (RTN) 2-0000053. The term "Disposal Site" or "Site" refers to the portion of the Property and downgradient areas where oil and/or hazardous material (OHM) have come to be located as a result of historical releases. WSP has provided technical assistance to Grimes Aerospace Company and Honeywell with respect to response actions conducted at the Site from 2015 through 2023.

This PSSWC has been prepared in accordance with the current Massachusetts Contingency Plan (MCP), 310 Code of Massachusetts Regulations (CMR) 40.0000. The Site achieved a Class C-1 Response Action Outcome (RAO) or Temporary Solution on February 9, 1996. Since the submittal of the Class C-1 RAO Statement, response actions were completed at the Site to meet the requirements of a Permanent Solution. This PSSWC provides documentation that a Permanent Solution has been achieved.

A Permanent Solution Statement Transmittal Form, BWSC-104, is being submitted electronically with this report and a copy of the unsigned form is included in **Appendix A**. In accordance with 310 CMR 40.1056, a Condition of No Significant Risk has been demonstrated at the Site. Using the post-remediation Site data, a Method 3 risk characterization, in accordance with 310 CMR 40.0900, was completed by WSP to characterize the risk of harm to health, safety, public welfare and the environment for both current and future uses of the Site.

DRAFT

As required by 310 CMR 40.1403(3)(f), letters were sent to the Chief Municipal Officer, Board of Health, and the Conductorlab Oversight Committee notifying them of the submission and availability of this Permanent Solution Statement. Copies of these letters are provided in **Appendix B**.

1.1 SITE LOCATION AND DESCRIPTION

The Property is located at 430 Main Street in Groton, Massachusetts, and is situated along the east side of Route 111/119, approximately 0.75 miles north of the center of Groton. The Town of Groton Assessor's Office designates the Property as lot number 110-35, comprising approximately 3.2 acres of land. The Site location on the US Geological Survey Topographic Map of the Ayer Quadrangle is provided as **Figure 1**.

The Conductorlab Site is located in a mixed-use area. The Property is located within the Industrial Zoning District pursuant to the Town of Groton Zoning Map, with the remainder of the Site being located within the Industrial Zoning District or Residential/Agricultural Zoning District. The on-Property portion of the Site is no longer improved by any building structures since demolition of the GWTS building in November 2017. The only other physical structures present on the Property are the concrete slab from the historic groundwater treatment system building and a perimeter fence. A Site map including off-Property monitoring locations is included as **Figure 2**; and an on-Property Site map, including prominent on-Property features and boring and monitoring locations, is provided as **Figure 3**.

1.2 LOCATION AND BOUNDARIES OF DISPOSAL SITE

In accordance with the MCP definition, the area where OHM attributable to releases from historic manufacturing and industrial activities have come to be located is the Disposal Site. The Disposal Site Boundary contains a portion of the 430 Main Street Property, the Unnamed Brook, and all or portions of sixteen (16) off-Property parcels as depicted on **Figure 2**.

DRAFT

1.3 SITE HISTORY

1.3.1 HISTORICAL SITE USE

The Property was originally owned and operated for the manufacture of printed circuit boards by Charles Thibeau in 1958.

Operations began in 1958 in a one-story building located on the western portion of the Property (i.e., original building) and were later moved in 1965 to a new building constructed east of the original building (i.e., main building). A farmhouse located west of the original building reportedly was used as office and storage space. In 1965, the Property and operations were purchased by Conductorlab, Inc. In 1972, the facility and operations were purchased by Cambridge Thermionic. In February 1982, Midland-Ross Corporation acquired Cambridge Thermionic Corporation. In 1983, the Property was bought by Lab Circuits Corporation (Kytron-Circuits Corporation), who operated the facility until ceasing operations in 1985. The Property has been inactive since that time. The farmhouse and main building were razed in 1988 and 1989, respectively.

The manufacturing processes involved photoengraving, etching (including the use of chromic acid and chlorinated solvents), metal plating (including the use of copper, lead, tin, nickel, and gold), assembly, and inspection of the circuit boards. Chemical and process wastes generated during 1958 to 1965 were recycled, discharged to a leach bed west of the original building, and/or discharged to the Unnamed Brook located north of the Property. Two neutralization-settling tanks were installed in 1965 for the treatment of chromic acid and process rinse water prior to discharge to the subsurface chemical leaching beds located north of the main building. A wastewater treatment (WWT) facility constructed along the east side of the main building was operational from 1974 through 1985. The facility treated process rinse waters prior to discharge to the Unnamed Brook under a National Pollution Discharge Elimination System (NPDES) permit. Chemicals used in the manufacturing operations were stored in aboveground storage tanks (ASTs) and 55-gallon drums located outside and adjacent to the buildings.

DRAFT

The drum storage was located adjacent to the southeast side of the original building; along the southwest side of the main building; along the northeast corner of the main building; and southeast of the WWT facility. Fresh and spent solvent was stored in ASTs that were located south of the original building and along the north side of the main building.

As discussed in the 1988 Phase II Site Investigation report by HMM, an 800-gallon chromic acid AST located south of the original building ruptured in 1968, releasing several hundred gallons of chromic acid onto the soil and into the basement of the former farmhouse.

In 1988, Forstmann Little Company acquired Midland-Ross Corporation, which held a mortgage on the Property, through a leveraged buyout and in October 1988, Lab Circuits Corporation conveyed the Property to FL Aerospace Corporation, an affiliate of Forstmann Little Company. Pursuant to a Certificate of Amendment filed with the Delaware Secretary of State on June 4, 1991, FL Aerospace Corporation changed its name to Grimes Aerospace Company. In 1997, AlliedSignal Inc. acquired Grimes Aerospace Company from Forstmann Little Company and it became a wholly owned subsidiary of AlliedSignal Inc. In 1999, AlliedSignal Inc. acquired Honeywell and changed the name of the merged companies to Honeywell International Inc.

1.4 NATURAL RESOURCE AREAS AND SURROUNDING LAND USE

According to the MassDEP 21E Priority Resource Map, the Site is located within an Area of Critical Environmental Concern, within 500 feet of a Protected Open Space and within 0.5 miles of registered freshwater wetlands as depicted in **Figure 4**. An Unnamed Brook is located to the north and to the west of Main Street (comprised of wooded undeveloped properties), and there are wetlands along the path of the Unnamed Brook, and to the confluence of the Unnamed Brook and Gratuity Brook. The Unnamed Brook flows west-southwesterly parallel to the northern Property line. From the Property it flows through a culvert, under Main Street (Route 119), and 1,500 feet downstream into Gratuity Brook which in turn discharges into the Nashua River approximately 6,000 feet to the northwest of the Site.

DRAFT

Where the Unnamed Brook abuts the Property, only the upper portion is exposed; the lower portion flows through a culvert that discharges into an open basin next to Route 119, which in turn discharges into a 36-inch reinforced concrete pipe (RCP) culvert under the road that discharges to the wetland area. There are no regulated water protection areas or public water supplies located within 500 feet of the Site.

DRAFT

2.0 DISPOSAL SITE HISTORY

2.1 REGULATORY BACKGROUND -RTN 2-0000053

There have been approximately 130 environmental reports that have been submitted to MassDEP since notification of the Release in 1986 and these are available to view on MassDEP's Waste Site/Reportable Release File Database using the link provided:

RTN 2-0000053 Waste Site & Reportable Release Information

The following sections summarize the Site's release history.

2.1.1 1986 – ENVIRONMENTAL SITE ASSESSMENT PREPARED BY GZA, 1986

During the 1986 preliminary Site assessment, a release of volatile organic compounds (VOCs) and metals (specifically chromium) associated with historic Property operations and Site uses was identified at the Property. The Site was listed with MassDEP, resulting in the assignment of RTN 2-0000053 to the Site.

2.1.2 1988 TO 1992 – PHASE II COMPREHENSIVE SITE ASSESSMENTS

From 1986 to 1992, HMM conducted several iterative environmental investigations and prepared associated reports detailing the assessment of soil, groundwater, surface water, and sediments. These assessment activities focused on the nature and extent of contamination at the Site, plume migration, and risk characterization including potential contaminant exposure and vapor intrusion on-Property and off-Property. Following concerns of exposure to compounds detected in groundwater on downgradient residential properties, MassDEP conducted indoor air testing at downgradient residences. Then in 1988, the Site became a Public Involvement Plan (PIP) site and Honeywell has provided reports and public presentations to the Conductorlab Oversight Committee since that time.

DRAFT

These investigations revealed elevated VOC concentrations up to 520,290 parts per billion (ppb) and concentrations of hexavalent chromium (Cr+6) up to 625,000 ppb in groundwater on the Property and off-Property. Elevated concentrations of heavy metals were detected in surficial soils on Property, and in sediment and surface water as well.

Following the investigations, HMM concluded that groundwater flow is in the westerly direction towards the Nashua River and that the Unnamed Brook and Gratuity Brook had significant influence on groundwater flow and contaminant migration. As a result, DEP provided approval to proceed with developing a short-term abatement measure to minimize and/or reduce off-Property migration of contaminants. Beginning in July 1989, HMM designed a pilot-scale groundwater treatment system, and the pilot scale treatment system was installed and permitted to discharge up to 4,800 gallons per day (gpd). In December 1991, HMM, prepared a Final Design, Full-Scale On-Site Remediation Program; in May 1992, the full-scale system was installed and permitted to discharge up to 28,000 gpd. The treatment system utilized several groundwater recovery wells to pump groundwater and remove VOCs, hexavalent chromium and other heavy metals through electrochemical reduction, clarification, filtration, and carbon adsorption as a final polishing treatment step.

HMM continued to monitor the Sitewide groundwater on a quarterly basis for heavy metals and VOCs. HMM operated and maintained the groundwater treatment system, monitoring influent and effluent concentrations for heavy metals and VOCs on a monthly basis. Monitoring data collected from 1989 to 1992 in on-Property and off-Property areas indicated decreasing contamination concentrations.

2.1.3 1995 PHASE III REMEDIAL ACTION PLAN & 1995 IV REMEDIAL IMPLEMENTATION PLAN

In 1995, EARTH TECH prepared a Phase III Remedial Action Plan (RAP) and a Phase IV Remedial Implementation Plan (RIP).

DRAFT

The RAP detailed the evaluation of four remedial alternatives in accordance with 310 CMR 40.0857(2) of the MCP and the RIP detailed the implementation of the selected remedial action alternative, which consisted of the disposal of on-Site source materials and the continued operation of the groundwater pump and treatment system. This remedial alternative was selected based on the evaluation of four remedial action alternatives developed to protect future on-Site construction workers (a risk identified in the Phase II Risk Assessment) and reduce or eliminate the risk from off-Site groundwater contamination. EARTH TECH evaluated the following four remedial alternatives:

1. Long-Term Monitoring /AULs
2. Contaminant/Impermeable Cap
3. Chemical Precipitation/Powdered Activated Carbon Treatment/Off-Site Disposal
4. Electrochemical Reduction/Carbon Adsorption/Off-Site Disposal

Alternative 4 was selected in accordance with 310 CMR 40.0874 of the MCP and approval from DEP was not required prior to implementation of the comprehensive remedial alternative. At the time of the Phase IV RIP submission, the system (that was installed in May 1992 as part of HMMs Full Scale On-Site Remediation Program) had treated over 6 million gallons of groundwater and made significant progress in reducing concentrations of the contaminants of concern (COCs) below the applicable MCP Groundwater standards. Furthermore, when the groundwater treatment system was upgraded in 1993, approximately 250 cubic yards of contaminated soil and concrete were removed from the former wastewater storage vaults and neutralization vault and disposed of at a RCRA-permitted facility. EARTH TECH concluded that continued operation of the groundwater treatment system, implementation of an activity use and limitation on the Property and placing Notices of Grants of Environmental Restriction (GER) on the Site properties would be effective to achieve regulatory closure and the Phase IV RIP was not implemented at the Site.

DRAFT

Following the Phase IV RIP submission, Notices of GER restricting use of groundwater for 29 properties were recorded in May 1995 with the Middlesex South Registry of Deeds. Ten of these properties were and are, completely or partially within the Disposal Site (these approximate Property boundaries are depicted on **Figure 2** and **Figure 5**). Owners of nineteen other properties in the vicinity of the Site also voluntarily filed such Notices.

These Notices of GER restrict the use of groundwater for personal, domestic, or industrial uses until or unless these uses are approved by the MassDEP. The Notices of GER also prohibited installation of private water supply wells and required destruction of existing private wells. Recent records research in November 2022 and January 2023 confirmed that no private wells have been installed at the Site. The addresses of properties where Notices of GER have been implemented are included in the Method 3 Risk Characterization **(Appendix C)**.

2.1.4 CLASS C RESPONSE ACTION OUTCOME STATEMENT, PREPARED BY EARTH TECH, 1996

In February 1996, Earth Tech submitted a Class C Response Action Outcome (RAO), now referred to as a Temporary Solution Statement (TSS). The Disposal Site Boundary to which the Class C RAO applied consisted of the Property and all or portions of sixteen off-Property parcels on Main Street, Mill Street, Arlington, and Gratuity Road where GERs had been implemented. Based on the 1991 and 1993 risk assessments, EARTH TECH concluded that a Condition of No Substantial Hazard was present, and a Temporary Solution had been achieved. However, a Condition of No Significant Risk to public welfare was not present because groundwater concentrations still exceeded the applicable Upper Concentrations Limits (UCLs).

EARTH TECH implemented an AUL in January 1995 limiting the 430 Main Street, Conductorlab Property to industrial and commercial uses with obligations to maintain the existing pavement and building slabs. EARTH TECH concluded that an AUL was appropriate to reduce exposure to soil and groundwater. The AUL was later retracted as documented below.

DRAFT

The TSS required the continued operation of the groundwater treatment system, continued long term groundwater monitoring and the implementation of an AUL to achieve a Permanent Solution and regulatory closure in the future. In accordance with 310 CMR 40.1050(5)(b), a review of the TSS was required every fifth year after the date of the initial filing of the TSS. From 2002 to April 2020, Honeywell has completed biannual post-TSS operation and maintenance monitoring (OMM) reports and three Periodic 5-year reviews of the TSS that resulted in additional response actions that are summarized in the sections below.

2.1.5 MAINTENANCE OF THE TEMPORARY SOLUTION – 2001 TO 2020

Following the submission of the 1996 Class C RAO, response actions for the Site were conducted in accordance with the original 1995 RIP and were summarized in detail in quarterly groundwater monitoring reports, annual status reports, and five-year periodic reviews (bi-annual status reports were submitted starting in 2005). Each Periodic Review evaluated the effectiveness of the Temporary Solution (Class C-RAO) and necessary response actions to maintain the Temporary Solution or achieve a Permanent Solution. The following lists the several remedial actions that occurred to maintain a Temporary Solution.

2001 to 2006

Upgrades to GWTS including installation of additional recovery wells and an air stripper with the final carbon adsorption polishing step.

2006

Retraction of the AUL; evaluation of the risk assessment determined an AUL was not necessary because a Condition of No Substantial Hazard was met, consistent with MassDEP's Notice of Audit Findings (NOAF).

DRAFT

2007

- During subsurface investigations in 2003 through 2005, concentrations of lead and xylenes were detected above the UCLs (at depths ranging from 5 feet below ground surface [ft. bgs] to 12 ft. bgs) that triggered new release notifications (RTN 2-15203 and RTN 2-15486 respectively). Subsequent Release Abatement Measure (RAM) activities were conducted including the excavation and off-Site disposal of 1,273 tons of lead- and xylene-impacted soil. Following the submission of the RAM Completion Report, these RTNs were closed and linked to the primary Site RTN 2-0000053.
- Pilot Scale Injection Study: injection of nanoscale zero valent iron (NZVI) in the shallow aquifer and bacterial injections of SDC-9 into bedrock to reduce concentrations of hexavalent chromium and TCE.
- Installation of additional monitoring wells throughout the Disposal Site.
- Continued quarterly monitoring of groundwater, surface water, and sediment for VOCs and metals.

2009

- Bedrock investigation that included the installation of several monitoring wells to delineate the extent of TCE in bedrock.
- Implementation of an In-situ Chemical Oxidation (ISCO) program for the reduction of TCE within the bedrock aquifer following the preparation of a Phase III RAP and Phase IV RAP

2012

Following the ISCO program and observed decrease in concentrations, the GWTS system was shutdown.

- Demolition of the GWTS building was completed by November 2017. The building, concrete slab, and equipment pads were removed and disposed, and soil samples were collected from beneath the former building slab for VOCs, Cr, and Cr+6. No reportable concentrations were detected in soils.

DRAFT

2015

Residential indoor air sampling was completed at a nearby residential property (179 Mill Street) in May 2015 at the request of MassDEP. The investigation included two rounds of indoor air samples collected from inside and outside (for ambient air). Results indicated that there is not a complete exposure pathway from groundwater into indoor air. As previously mentioned in section 2.1.2, MassDEP conducted vapor intrusion assessments to evaluate potential exposure pathways associated with elevated VOC concentrations in nearby monitoring wells and private wells at downgradient properties. These assessments were completed as part of Phase II and indicated that migration of VOCs from groundwater to indoor air was not occurring.

2.2 SUPPLEMENTAL PHASE IV REMEDIAL ACTIONS

The following sections detail the supplemental response actions conducted as part of the Phase IV RIP for the purposes of achieving a Permanent Solution.

2.2.1 2015 PHASE IV RIP AMENDMENT

As a result of the ISCO injections, concentrations of Cr+6 began to rebound and the presence of Cr+6 within a small area of groundwater adjacent to the Unnamed Brook represented an impediment to achieving a Permanent Solution. Therefore, a Phase IV RIP Amendment was submitted in 2015 detailing an amended ISCR program to reduce the Cr+6 to Cr+3, and if possible, ultimately eliminate the presence of elevated Cr+6 in the surface water.

In 2015, a Substantial Hazard Evaluation (SHE) concluded that a condition of No Substantial Hazard, as defined by the MCP at 310 CMR 40.0956(1)(a), existed at the Site at the time, and that the Site still met the requirement for a Temporary Solution.

Upon completion of the Cr+6 remediation, the Phase IV RIP planned that a Stage II Ecological Risk Characterization would be performed to assess remaining risks in the surface water and Unnamed Brook to determine if the Site was a candidate for a permanent closure.

DRAFT

Eleven ISCO remediation events (to treat VOCs) and in-situ chemical reduction (ISCR) remediation events (to treat Cr+6) were completed at the Site from September 2009 through January 2016. These events were intended to treat VOC and Cr+6 concentrations in groundwater at the Site and potentially treat surface waters within the Unnamed Brook.

In 2015, in-situ chemical reduction (ISCR) was applied in select areas, using calcium polysulfide (CAPS) to reduce Cr+6 to trivalent chromium (Cr+3) and chemically sequester the Cr+3. The following investigations and activities occurred as part of these remedial actions:

- Post-ISCO bedrock groundwater monitoring wells were sampled to assess and confirm remediation progress. Bedrock groundwater results concluded that average concentrations for each Site-related compounds (VOCs, Cr, and Cr+6) were below their respective upper concentration limits (UCL).
- In January 2016, an additional ISCR remediation of calcium polysulfide (CAPS) solution was completed to address Cr+6 concentrations at monitoring well locations CLW-8 and PP-3 that could be contributing to concentrations above the Ambient Water Quality Criteria (AWQC), at surface water locations CSW-3, CSW-3A, and CSW-4. The ISCR treatment did not achieve the results that had been targeted for the surface water. Additional investigation was proposed to identify, delineate, and remediate Cr and Cr+6 sources that might be impacting the surface water.
- A source investigation was completed in the area surrounding CLW-8 in September 2017 and May 2018. It was determined that residual sources of Cr and Cr+6 might be impacting surface water in the Unnamed Brook. An ecological risk assessment was initiated in July 2018 and April 2019, which identified negligible sediment impacts from Site-related constituents; however, surface water toxicity tests suggested that concentrations of Cr+6 might be toxic to the aquatic community during dry-weather base flow conditions but are not toxic during wet season conditions.

DRAFT

2.2.2 2019 PHASE IV RIP AMENDMENT

Based on the results of the July 2018 and April 2019 Ecological Risk Assessment, MassDEP approved a Phase IV Remedy Implementation Plan (Phase IV RIP) for addressing groundwater discharging to the Unnamed Brook and surface water in the brook, which was submitted in August 2019 and implemented in June 2020.

A bench scale test for treatability of residual Cr+6 sources was completed in November 2018. Results of the Bench Test Study determined that zero-valent iron (ZVI) was the best remedial alternative to reduce Cr+6 impacts to the surface waters. The Phase IV Amendment describing the ZVI remediation was also submitted to the Groton Conservation Commission.

WSP completed the ISCR (ZVI) treatment in June 2020; the ISCR treatment was injected in the northwestern portion of the Site where groundwater discharge to the Unnamed Brook was occurring. WSP submitted semi-annual Operation, Maintenance and Monitoring Reports detailing the groundwater and surface water monitoring conducted following the remedial activities. In 2021, groundwater and surface water monitoring data indicated that the ZVI treatment was effective at reducing Cr and Cr+6 concentrations in groundwater at CLW-8 to below GW-3 standards and seemed to improve the Cr+6 results in surface water. The analytical data collected following the ZVI treatment have demonstrated that remediation has been effective at reducing concentrations of TCE and Cr+6 to meet Site-specific risk-based closure goals under a Method 3 Risk Characterization.

DRAFT

3.0 SITE GEOLOGY AND HYDROGEOLOGY

3.1 TOPOGRAPHY

As shown on **Figure 1**, the Site is situated in a topographically low area at an elevation of approximately 94 feet above mean sea level (msl). The ground surface topography at the Site is relatively flat but slopes upwards towards the northwest.

3.2 GEOLOGY

3.2.1 OVERBURDEN GEOLOGY

The overburden soil at the Site consists primarily of sands and silts, varying from medium dense gravelly sand with varying amounts of silt to glacial till. As noted in historic subsurface investigations, overburden extends from the ground surface to approximately 20 feet bgs. A dense glacial basal till layer comprised of a combination of sand, silt, and gravel was observed immediately above the bedrock. According to the USDA Natural Resources Conservation Services Soils Survey, surface soils on the Site consist predominantly of Charlton fine sandy loam and Paxton fine sandy loam.

3.2.2 BEDROCK GEOLOGY

According to the 1983 Bedrock Geologic Map of Massachusetts (Zen, 1983), the Site is underlain by thin to thick bedded metamorphosed calcareous sandstone, siltstone, and minor muscovite schist within the Berwick Formation of the Merrimack Belt.

During the various Phase II assessment activities, monitoring wells were installed into the weathered rock and bedrock zones throughout the Site. The bedrock surface was encountered at varying depths ranging from approximately 10 feet bgs to approximately 20 feet bgs. Previous assessment and survey of the bedrock indicates that the bedrock surface may be dipping in a west/southwesterly direction.

Bedrock cores were logged by others and the logs were provided in historic Phase II CSA and supplemental investigations reports.

DRAFT

The bedrock encountered in the cores was consistent with mapped formations and generally consisted of weathered fine-grained schist and/or gray-green hard schist.

3.3 HYDROGEOLOGY

Groundwater elevation measurements were collected on a semi-annual basis and were presented in previous reports. The depth to groundwater fluctuates seasonally. As shown in **Table 1**, groundwater elevation data collected in April 2021 ranged from approximately 236.52 ft. msl. at CLW-22 (off-Property) to 282.52 ft. msl. at LF-3 (on-Property). Groundwater contours for the overburden and bedrock aquifers are presented in **Figure 6A** and **Figure 6B**, respectively. As shown on the figures, groundwater flow direction, in both the overburden and bedrock aquifers, is inferred to be generally to the west.

Following the Phase II Site assessments, HMM concluded that groundwater flow is in the westerly direction towards the Nashua River and that the Unnamed Brook and Gratuity Brook had significant influence on groundwater flow and contaminant migration. The subsurface investigation determined that the Site is underlain by a low yield unconsolidated aquifer which overlies a thin veneer of permeable weathered and fractured bedrock above a deeper, more dense, fractured bedrock aquifer system. The high contaminant concentrations remaining in close proximity to the source areas indicates the dense, fractured bedrock system had retained much of wastes released. Groundwater migration is transporting contaminants downgradient to the northwest of the Site at significantly lower concentrations. Most contaminant transport is occurring in the unconsolidated aquifer and the veneer of permeable weathered and fractured schist in the upper portion of bedrock. The direction of groundwater flow is toward the west with the major point of discharge being the Unnamed Brook on the north side of the Site.

DRAFT

4.0 CONCEPTUAL SITE MODEL

The conceptual Site model (CSM) pertains to release(s) of VOCs and metals, associated with the historical industrial operations at the Site. The release(s) were not associated with any specific event but resulted in impacts to groundwater, soils, and surface water. The CSM is based on observations collected during subsurface investigation activities, remedial response actions, field screening and laboratory analysis of groundwater, soil, sediment, and surface water samples.

4.1 SOURCE AND RELEASE OF OHM

The volume of VOCs, SVOCs, and metals (specifically chromium) that were released to the environment is unknown, but as described in Section 1.3, the Property was historically utilized for manufacturing and industrial uses that included circuit board manufacturing, metal plating and engraving. Chlorinated solvents and metals wastes were discharged to the subsurface during these manufacturing processes. Chemicals and solvents were also stored on-Property in ASTs.

Concentrations of several VOCs and metals, primarily TCE, TCE breakdown products, Cr and Cr+6 was detected in groundwater and soil at concentrations triggering a release condition. Site investigations concluded that release areas were likely located in the southern portion of the Property and migrated off-Property to the west in the direction of groundwater flow, affecting groundwater on downgradient properties. Surface water and sediments in the Unnamed Brook, which flows from northeast to southwest within the Disposal Site, have also been impacted by groundwater discharging to the brook. Select VOC analytes and metals were detected at elevated concentrations in both surface water and collected from the Unnamed Brook. Site assessment and monitoring locations are depicted on **Figures 2, 3, 7 and 8**.

DRAFT

4.2 ON-PROPERTY EXTENT OF OHM

4.2.1 EXTENT OF OHM IN SOIL

Soil analytical data were collected in 1993, 2003 through 2007, 2017, and 2018 from the surface (0-3 feet bgs and subsurface (3-20 feet bgs). During subsurface investigations, soil assessment revealed detections of VOCs, SVOCs, and metals within shallow soils on the Property. Off-Property soil has not been impacted by the Release and is not part of the Disposal Site. Demolition and RAM excavation activities removed approximately 2,000 cubic yards of impacted soil from the Site. Residual soil contamination at the Site consists primarily of metals, with fewer detections of SVOC and VOC analytes; however, these detections are below the applicable risk-based soil standards. The surface and subsurface soil sample locations and excavation areas are depicted in **Figures 7 and 8.**

Metals are detected in soil across the horizontal and vertical extent of the Property, with generally higher concentrations of metals, in or near the footprints of the former manufacturing buildings. The vertical extent of soil contamination is approximately from the surface to 20 ft. bgs, and the horizontal extent includes the front portion of the Property that lies within the Disposal Site Boundary shown **Figure 2**. The primary COCs associated with the Site release in soil are chlorinated VOCs and chromium. Arsenic in soil was excluded as a COC for this risk characterization based on background conditions. Overall, while arsenic concentrations at the Site have been detected above concentrations observed at sites in the nearby vicinity, geochemically, arsenic shows a highly correlated relationship to aluminum at the Site, indicating that the arsenic detected in soil is due to geologic conditions of the Site and not to anthropogenic contamination. This evaluation is provided in detail in the Method 3 Risk Characterization, **Appendix C**. In addition, there is no information in the Site history or in the former uses of chemicals at the Site that would indicate that arsenic is associated with a release at the Site. A summary of the historic soil data is included in **Table 2** and soil sampling locations and previous excavation areas are depicted in **Figures 7 and 8**.

DRAFT

4.2.2 EXTENT OF OHM IN GROUNDWATER

A groundwater plume of VOC and metals migrated from the southwestern portion of the Property towards the western portion of the Site consistent with groundwater flow in the shallow overburden and bedrock portions of the aquifer. VOCs and metals (specifically TCE and chromium) are the primary contaminants in the plume, which exceeded applicable groundwater Reportable Concentrations. The goal of the Phase IV RIP was to attain concentrations below UCLs following operation of the groundwater treatment system and performance of ISCO and ISCR injection. This goal has been achieved as post-remediation concentrations of Cr, Cr+6 and TCE in groundwater remain below their respective UCLs and risk-based standards.

Groundwater collected from bedrock in 2013 and 2014 and from 2017 to 2021 indicate that residual concentrations of Cr and Cr+6 are present in both the shallow overburden and bedrock aquifers. Specifically, residual shallow overburden impacts are located within the western central portion of the Property and bedrock impacts are located within the vicinity of the former treatment system (as depicted in **Figures 9A, 10A and 11**). Although residual concentrations of chromium are present, concentrations are stable and not significant increasing or decreasing since post-remedial groundwater monitoring. Concentrations of residually detected VOCs, specifically TCE are present at higher concentrations in the bedrock aquifer; however as previously mentioned, the TCE bedrock plume is stable and not exhibiting signs of migration, and these concentrations are below the applicable groundwater UCLs. A summary of the relevant groundwater and bedrock groundwater data is included in **Table 3 and Table 4**.

4.3 OFF-PROPERTY MIGRATION OF OHM

As detailed in previous sections of this report, early Site investigations revealed migration of On-Property contamination to downgradient groundwater, surface water and sediments to the west. Vapor intrusion pathways were assessed at downgradient properties. Groundwater, surface water, and sediment impacts are most elevated at locations directly adjacent to and downgradient of the Property.

DRAFT

Concentrations of VOC and Cr decrease further downgradient of the Property and very low to non-detectable concentrations of VOCs and Cr are detected at the perimeter sample locations within the Disposal Site Boundary. Off-Property monitoring locations are depicted on **Figure 3.**

4.3.1 EXTENT OF OHM IN SOIL

Soil analytical data collected in 1993, 2003 through 2007, 2017 and 2018 indicated that soil impacts are limited to the Property. Off-Property soil has not been impacted by the release and is not part of the Disposal Site.

4.3.2 EXTENT OF OHM IN GROUNDWATER

Phase II CSA investigations revealed that groundwater flow had significant influence on contaminant migration. As a result, several shallow overburden and bedrock monitoring wells were installed west of the Property in the inferred downgradient direction, west of Main Street and west of Mill Street. Post-remedial groundwater monitoring revealed residual but decreased concentrations of VOCs and metals in select Off-Property wells. TCE, Cr and Cr+6 concentrations in both the shallow overburden and bedrock aquifers have decreased over time, remain stable, and are below risk-based standards and UCLs. Residual concentrations in off-Property groundwater within the Site have exhibited plume stability, post-remedial groundwater concentrations continue to remain within the vicinity of Main Street and Mill Street (extending from the off-Property monitoring wells, PP-3 west to CLW-20) as depicted on **Figures 9B and 10B.** Concentrations have not significantly increased or decreased following remedial ISCO and ISCR treatment.

Residual concentrations in off-Property groundwater within the Site are above GW-2 standards (indicating that vapor intrusion may be of potential concern (**Figure 9B**)). However, the vapor intrusion pathway is not currently complete. At several parcels located off-Property, namely the properties between Main Street and Mill Street are currently vacant, there are no buildings present, and (to Honeywell's knowledge) no occupied buildings are planned to be constructed in the future.

DRAFT

These parcels, Parcel ID# 110-07, 110-09, 110-13, 110-14, and 110-36 are depicted within the green hatching on Figure 5.

For this undeveloped portion of the Disposal Site, a condition of this PSS includes the requirement to conduct an evaluation of a potential vapor intrusion pathway prior to the construction of an occupied building. This requirement is further detailed in section 8.0.

On developed off-Property parcels within the Site, concentrations in groundwater within the Site are also above GW-2 concentrations as depicted in **Figure 9B**, indicating that vapor intrusion may be a potential concern. However, previous vapor intrusions investigations completed in 1993 and 2015 by MassDEP and WSP (as Amec Foster Wheeler), respectively, at off-Property residences have demonstrated that this pathway is not complete.

The property located at 179 Mill Street or Parcel ID 110-20 (near CLW-19) was sampled by MassDEP and WSP was in the area overlying the highest off-Property groundwater concentrations; however, sampling conducted at this property indicated that contamination was not migrating from groundwater through soil gas and into indoor air. This evaluation was documented in the risk characterization provided in the Phase II Comprehensive Site Assessment by HMM Associates, Inc. in 2015. Therefore, there are not any complete vapor intrusion pathways for any off-Property residences.

4.3.3 EXTENT OF OHM IN SEDIMENTS

As part of earlier assessments (in 2005, 2007, and 2018), four sediment samples were collected from locations in the Unnamed Brook adjacent to the Property (identified as CSD-1, CSW-2, CSD-3, CSD-3A) for laboratory analysis of VOCs, SVOCs, metals, and pesticides (to identify possible non-Site related interferants for future toxicity tests, if needed, but these additional analytes were not considered Site-related OHM).

DRAFT

Sediment samples were collected within the first six inches of sediment from the same geographic locations as surface water samples. These samples were collected to establish the downstream Disposal Site Boundary with respect to sediments.

TCE and Cr were the only Site-related OHM detected in the sediments. Concentrations of Cr detected were above the MassDEP Freshwater Sediment Screening Criteria (SSC) that are based on the Threshold Effects Concentrations (TECs) and Probable Effects Concentrations (PECs).

Five additional sediment samples (identified as CSD-4, CSW-5/CSD-5[1], CSW-7, CSW-8, CSW-12) were collected from the Unnamed Brook (in 2005, 2007, and 2018), downgradient of the Property and analyzed for VOCs, SVOCs, metals and pesticides. Like the sediment samples located adjacent to the Property, concentrations of TCE, and chromium are the only Site-related OHM that were detected. Concentrations of Cr were elevated and/or above the MassDEP Freshwater Sediment Screening Criteria from all downgradient sediment locations except at the most downgradient sample locations (CSW-12 and CSW-8). The maximum TCE concentration detected was below the ecological sediment screening benchmark.

The metals and VOC detections in sediments are consistent with detections in the associated surface water samples and indicated that Site-related OHM had affected both surface water and the sediments. Impacts to sediments are primarily associated with elevated groundwater impact areas, within portions of the Unnamed Brook adjacent to the southwestern portion of the Property and extending downstream to sample location, CSW-7.

When at least one COC in a given medium is above screening benchmarks, a strict application of the Stage I ES process, a Stage II ERC, is necessary. Subsequently, an updated Stage II Environmental Risk Characterization was completed.

[1] The sediment samples identified as CSD-5 and CSW-5 were collected at the same location, but at different times. Sediment samples identified as CSW-5 were collected in 2005 and 2007 and samples identified as CSD-5 were collected in 2018. These samples are associated with the surface water sample CSW-5.

DRAFT

It evaluated the residual concentrations in sediments and concluded that a condition of No Significant Risk to the environment exists for the residual concentrations of chromium in sediments.

A summary of the historic sediment data is included in **Table 5** and details of the ecological risk assessment are included in Section 5.2 of this report. Extent of OHM in Surface Water

As detailed in Section 3.3 of this report, Phase II investigations revealed that the Unnamed Brook and Gratuity Brook had significant influence on groundwater flow and contaminant migration. Following the 2009 ISCO injections to treat TCE, concentrations of Cr+6 began to increase within a small area of groundwater adjacent to the Unnamed Brook. As a result, concentrations of total hexavalent chromium and dissolved chromium (and copper) exceeded the acute and chronic AWQC at the three surface water sampling locations, CSW-1 through CSW-3, located adjacent to the Property and in 2016, ISCR treatments were implemented to address the chromium concentrations in the surface water.

Surface water impacts are located within portions of the Unnamed Brook adjacent to the northwestern areas on Site and extend downstream to CSW-5 at the intersection of the Brook and Mill Street (refer to **Figures 9B and 10B**). These impacts are consistent with the extent of groundwater impacts as well.

In 2018, surface water analytical chemistry and toxicity samples were specifically collected to characterize base flow conditions. Under base flow conditions, the Unnamed Brook along the northern Property boundary is fed mostly if not entirely by shallow groundwater and should represent a 'worst case' exposure to fugitive chromium from the Site. Samples were collected from three downstream Site locations (CSW-3, CSW-3A, and CSW-5). Following the 2009 ISCO and 2016 ISCR treatments concentrations of TCE, chromium and copper were lower than pre-remedial samples, but fluctuated seasonally with groundwater as documented in Temporary Solution Status Reports.

DRAFT

However, post-remedial concentrations (following ISCO and ISCR treatment) of VOCs and metals in surface water were below the SWQS, ecological screening criteria and are below the no observed effect concentrations (NOEC)s; therefore, adverse effects to the aquatic community are not expected to occur and a condition of readily apparent harm no longer exists for the Unnamed Book surface water.

A summary of the historic surface water data is included in **Table 6** and additional details regarding the extent of OHM impacts in surface water are included in section 5.2, the ecological risk assessment.

4.3.4 EVALUATION OF VAPOR INTRUSION PATHWAY

During early Site investigations conducted in 1991 and 1993, HMM and MassDEP conducted soil gas and indoor air assessments respectively. Soil gas surveys were conducted off-Property (west of Mill Street) to determine the nature and extent of contamination from the Property and potential comingling of contamination from Clapp Junkyard (located at 177 Mill Street). No VOCs were detected in the soil gas samples which would have been attributable to the Property. The indoor air assessments were conducted at four off-Property residences located hydraulically downgradient at 179 Mill Street (near CLW-19) and 57, 63, and 133 Gratuity Road. MassDEP concluded that the concentrations of VOCs detected in the indoor air samples were comparable to background levels of chlorinated VOCs detected in indoor air unaffected by a subsurface release. Therefore, vapor intrusion as a result of contaminant migration from the Property and volatilization to indoor air was not considered to be an exposure pathway of concern; the pathway is not complete.

4.4 EXPOSURE PATHWAYS AND RISKS TO POTENTIAL RECEPTORS

The following exposure pathways were evaluated in a Method 3 Risk Characterization prepared in support of this Permanent Solution Statement. An exposure pathway involves a receptor, exposure medium, and exposure route(s). Exposure scenarios and pathways evaluated in this risk characterization are summarized below.

DRAFT

- Current and future exposure to on-Property soil from 0 to 15 feet bgs and exposure to on-Property groundwater in an excavation and inhalation of vapors from groundwater in an excavation
- Current and future off-Property exposure to groundwater in an excavation and vapors from groundwater in an excavation
- Current and future off-Property exposure to surface water and sediment.
- Future off-Property volatilization of COCs from groundwater to indoor air at off-Property residences.
    - Previous investigations of a vapor intrusion determined that volatilization of off-Site contamination was not a hazard to indoor air; therefore, this exposure pathway is not complete.
- Off-Property soil is not considered part of the Disposal Site, therefore exposure pathways related to off-Property soil are not considered complete.
- Agricultural uses for the purposes of growing produce for human consumption occurs at the Property; that use is not foreseeable. Therefore, consumption of produce via on-Site gardening was not considered a complete exposure pathway.

The following receptors were evaluated in the above-mentioned exposure pathways within the Site: current and future emergency utility worker and trespasser, current resident, and future commercial worker and construction worker. These exposure pathways were evaluated for each medium (soil, groundwater, surface water, sediment, and indoor air).

The exposure scenarios are summarized in **Table 1** and Section 2.3.3 of the M3RC, included in **Appendix C**. As mentioned previously, off-Property soil is not part of the Disposal Site; therefore, a complete exposure pathway does not exist and was not evaluated for off-Property soil.

DRAFT

5.0 RISK CHARACTERIZATION

A Method 3 Risk Characterization has been conducted to evaluate the risks associated with current uses and potential future uses of the Property and off-Property areas within the Disposal Site. The detailed risk characterization with associated calculations and tables is included in **Appendix C**. Off-Property portions of the Site include the Unnamed Brook, an area immediately west of Main Street (comprised of wooded undeveloped properties), wetlands along the path of the Unnamed Brook, and an area west of Mill Street including the confluence of the Unnamed Brook and Gratuity Brook. Groundwater within the Disposal Site is designated as GW-2 and GW-3; therefore, groundwater was evaluated for non-potable uses only. In addition, 26 Notices Restricting Use of Groundwater have been placed on the property deeds for the Property and properties downgradient within the Disposal Site (and, in a couple cases, outside the limits of the Disposal Site as defined in Exhibit B of the AUL package included in **Appendix D**), restricting the use of groundwater for personal, domestic, or industrial uses until or unless these uses are approved by the MassDEP. The Notices also prohibit installation of private water supply wells and required destruction of existing private wells. These Notices were recorded in May 1995 with the Registry of Deeds in Middlesex County, Massachusetts for ten properties that are completely or partially within the Disposal Site, and the owners of nineteen other properties in the vicinity also voluntarily filed such Notices.

5.1 SUMMARY OF HUMAN HEALTH RISK CHARACTERIZATION

For the off-Property areas of the Disposal Site, potentially complete exposure pathways to groundwater, surface water, and sediment were evaluated in the Method 3 Risk Characterization. As mentioned above, soil contamination is limited to the Property, and soil outside of the Property is not considered to be part of the Disposal Site; therefore, potential exposure to soil was not a complete exposure pathway for receptors identified for off-Property areas.

DRAFT

In addition, exposures associated with on-Property soil and groundwater, which are incidental ingestion, dermal contact, and inhalation of volatiles from a trench or excavation for a construction/utility worker, were also evaluated.

Based on these calculations, a condition of No Significant Risk to human health exists for the exposure scenarios evaluated under current conditions, where the on-Property portion of the Site is vacant and unused. Current receptors include an on- and off-Property trespasser, on- and off-Property emergency utility worker, and off-Property resident.

A condition of No Significant Risk to human health for exposure to soil and groundwater at the Site exists for exposure scenarios evaluated under future conditions, which are an on-Property trespasser, on-Property commercial worker, on- and off-Property construction worker, and on- and off-Property utility worker (for planned non-emergency utility work).

In addition, although concentrations in groundwater at the Site are above GW-2 Standards, the GW-2 category does not currently apply to most of the Site as, except for a few residential properties, there are not any occupied buildings present. As such, the condition identified in 310 CMR 40.1013(1)(d) is being applied in the PSS for the construction of future buildings in areas where groundwater concentrations above GW-2 standards require the evaluation of a potential vapor intrusion pathway. If a building is constructed in an area of the Site where concentrations in groundwater are above GW-2 Standards, an evaluation of a potential vapor intrusion pathway will be required to demonstrate that the pathway is consistent with a condition of No Significant Risk. If a condition of No Significant Risk cannot be demonstrated, then vapor mitigation measures may be necessary.

DRAFT

For other future activities and uses of the Property, a condition of No Significant Risk to human health will be achieved once an AUL is implemented that prohibits use of the Property for single-family and multi-family residential use; use of the Property for an elementary or secondary school, kindergarten, preschool, or daycare; active recreational use such as playing fields or a playground; and use for agricultural uses (including growing produce intended for human consumption) .

For the off-Property portion of the Site, vapor intrusion and groundwater exposure pathways for current, future, and hypothetical future uses have been evaluated and are either incomplete or are associated with a condition of No Significant Risk. Therefore, a condition of No Significant Risk exists for off-Property portion of the Disposal Site.

A condition of No Significant Risk to public welfare and the environment exists for the Disposal Site. Soil and groundwater concentrations are below corresponding Upper Concentration Limits (UCLs).

In addition, a condition of No Significant Risk to safety exists for the Disposal Site.

In summary, current and future foreseeable conditions at the Conductorlab Site are consistent with a condition of No Significant Risk to public welfare, safety, and the environment. A condition of No Significant Risk to human health will be achieved with the implementation of an AUL at the Property to restrict other uses of the Property that have not been evaluated herein. In addition, a potential vapor intrusion pathway must be evaluated and shown to be consistent with a condition of No Significant Risk should any future buildings be constructed in undeveloped areas where concentrations in groundwater are above GW-2 Standards. If a condition of No Significant Risk cannot be demonstrated, then vapor mitigation measures may be necessary.

DRAFT

5.2 SUMMARY OF ECOLOGICAL RISK CHARACTERIZATION

A Phase II Risk Assessment (ERA) was performed for the Conductorlab Site (RTN 2-0000053) in 1993 under the October 1993 revision to the Massachusetts Contingency Plan (MCP). The 1993 ERA concluded that there was no impact to surface water. However, a Site regulated under the MCP is subject to current regulations and guidance until a Permanent Solution Statement (PSS) is issued. Since the 1993 ERA, there have been numerous amendments to the MCP and updates to ecological risk assessment guidance.

Furthermore, since the 1993 ERA was filed, Site conditions have changed, including demolition of existing structures and implementation of remedial actions as well as numerous rounds of groundwater and surface water monitoring. Therefore, this Updated ERC has been prepared under current MCP regulations and risk assessment guidelines and assesses current Site conditions.

For releases within the Disposal Site Boundary, this Updated ERC includes:

- A Method 3 Stage I ES which evaluates if potentially significant exposures exist in the sediment,
- A Stage II ERC which evaluates potentially significant exposures in surface water, and in terrestrial soil.

Other than in the Unnamed Brook, impacted groundwater is not expressed in any other wetlands within Disposal Site boundaries.

The ERC concluded that a condition of No Significant Risk of harm to the environment is present in accordance with 310 CMR 40.0995(4)(e), for the following reasons:

- There is no physical evidence of a continuing release of oil and/or hazardous material at or from the Disposal Site to surface waters and wetlands which significantly affects Environmental Receptors.

DRAFT

- There is no evidence of biologically significant harm (at the subpopulation, community, or system-wide level) known or believed to be associated with current or foreseeable future exposure of wildlife, fish, shellfish, or other aquatic biota to oil and/or hazardous material at or from the Disposal Site.
- Concentrations of total chromium in surface water are less than the Massachusetts SWQS for trivalent chromium promulgated at 314 CMR 4.00.
- While concentrations of hexavalent chromium in surface water at three locations are greater than the Massachusetts SWQS promulgated at 314 CMR 4.00, Site-specific toxicity tests suggest that the standard is overly conservative for site conditions:
    - Two rounds of toxicity tests indicate that a lowest-observed-effect-concentration (LOEC) of 90 ug/L is protective of the aquatic community. The four most recent quarterly rounds of surface water sampling have determined that hexavalent chromium in surface water at the Site, including location CSW-3 and CSW-3A which historically had the highest concentrations, now perennially occur below this LOEC, and below a Site-specific no-observed-effect-concentration (NOEC) of 60 ug/L for most of the year.
    - Observations of pollution sensitive aquatic receptors present in the Unnamed Brook indicate an unimpaired aquatic community.
- There is no indication of the potential for biologically significant harm (at the subpopulation, community, or system-wide level), either currently or for any foreseeable period of time, to Environmental Receptors considering their potential exposures to oil and/or hazardous material and the toxicity of the OHM.

A copy of the complete ERA with tables, figures, and calculations is included in **Appendix E.**

DRAFT

6.0 REPRESENTATIVENESS EVALUATION AND DATA USABILITY ASSESSMENT (REDUA)

Pursuant to 310 CMR 40.1056(2)(k) of the MCP, a Representativeness Evaluation is required to document the adequacy of the spatial and temporal data sets used to support this Permanent Solution Statement with Conditions (PSS). Additionally, a Data Usability Assessment is required to document that the data relied upon are scientifically valid and defensible, and of a sufficient level of precision, accuracy, and completeness to support the PSS. The REDUA is provided in **Appendix F**.

The data evaluated for representativeness include soil, overburden groundwater, bedrock groundwater, surface water, and sediment analyses that have been performed over multiple investigation events. Some samples were not impacted by contaminant migration from the Property and were considered representative for delineation of the Disposal Site Boundary. Other data were associated with media that had been removed or remediated during the course of response actions and were not considered representative of current Site conditions. Remaining data were considered representative of current conditions within the Disposal Site Boundary and were utilized in the Method 3 Risk Characterization for the Site.

Soil, groundwater, surface water, and sediment data are considered to be usable under the MCP, based on the validation of these results in accordance with MassDEP and federal guidance. The data are scientifically valid and defensible, and of a sufficient level of precision, accuracy, and completeness to support this PSS. Data qualified as "rejected" were not used to support the PSS.

DRAFT

7.0 CONDITIONS OF THE PERMANENT SOLUTION STATEMENT

A Method 3 Risk Characterization has been performed for the Disposal Site and it is determined that a Condition of No Significant Risk is present at the Site.

7.1 NOTICES RESTRICTING USE OF GROUNDWATER

Notices Restricting Use of Groundwater were recorded in May 1995 with the Middlesex South Registry of Deeds for properties completely or partially within the Disposal Site, and the owners of several other properties in the vicinity of the Site also voluntarily filed such Notices. These Notices are in effect at properties that are located within the limits of the Disposal Site as shown on **Figure 5**. One minor exception is 436 Main Street, which does not have a Notice; however, the extent of the Disposal Site on that property is limited to impacts to surface water, and, as the area of the Site is not categorized as GW-1, there is not a potential use of groundwater for potable purposes.

These Notices restrict the use of groundwater for personal, domestic, or industrial uses until or unless these uses are approved by the MassDEP. The Notices also prohibited installation of private water supply wells and required destruction of existing private wells.

7.2 RESIDUAL CONCENTRATIONS IN GROUNDWATER EXCEEDING GW-2 STANDARDS

A condition of No Significant Risk is present at the Site; however, (as previously mentioned) residual concentrations are present in groundwater on portions of the Disposal Site above the applicable Method 1 GW-2 groundwater standards. The following parcels listed are properties located in the Disposal Site with GW-2 exceedances:

<u>Mill Street Parcels</u>

- #110-11: 210 Mill Street
- #110-12: 206 Mill Street
- #110-13: Vacant Land
- #110-14: Vacant Land
- #110-15: Vacant Land
- #110-19: 167 Mill Street
- #110-20: 179 Mill Street
- #110-21: 191 Mill Street
- #110-22: 195 Mill Street
- #110-25.1: 197 Mill Street
- #110-25.2: 199 Mill Street

DRAFT

Main Street Parcels

- #110-07: Vacant Land
- #110-09: Vacant Land
- #110-33: 436 Main Street
- #110-35: 430 Main Street (Former Conductorlab Property)
- #110-36: Vacant Land

Parcels with occupied structures were assessed for potential vapor intrusion pathways, these investigations demonstrated that this pathway is not complete (refer to Section 2.0 of the HRRA). The parcels listed as vacant land are not currently categorized as GW-2 because there are currently no habitable structures on the Site and there are no plans to construct buildings (to Honeywell's and WSP's knowledge). In the future, if an occupied structure were to be constructed at a currently undeveloped property where groundwater concentrations exceed GW-2 standards, the vapor intrusion pathway must be evaluated and ruled out or mitigated in order to maintain a condition of No Significant Risk. Pursuant to the MCP at 310 CMR 40.1013(1)(d), this obligation does not require recordation in an AUL, but can be documented as Condition in this PSS, as follows. This requirement is depicted on the **Figure 5**, the hatched green area identifies portions of seven vacant parcels where a vapor intrusion assessment would be required if a structure was constructed. This condition, pursuant to 310 CMR 40.013(1)(d) is detailed below.

Condition Pursuant to 310 CMR 40.1013(1)(d), Applied to Currently Undeveloped Property within the Disposal Site Boundary where Groundwater Concentrations Exceed GW-2 Standards (see **Figure 5**):

> Requirement to assess a potential vapor intrusion pathway if currently undeveloped property is developed and/or if any building is proposed to be constructed over areas where groundwater concentrations exceed GW-2 Standards. If a vapor intrusion pathway is found to be potentially complete, it must be demonstrated that the pathway is consistent with a condition of No Significant Risk, or, if that cannot be demonstrated, then mitigation measures must be implemented for this pathway.

To be conservative, the AUL that is being implemented for a Portion of the Property at 430 Main Street also includes this requirement to conduct an evaluation of a potential vapor intrusion pathway if buildings are constructed and occupied on the Property in the future.

DRAFT

7.3 ACTIVITY AND USE LIMITATION

Certain conditions apply to this Site to maintain a Permanent Solution. Specifically, an AUL is necessary to maintain a condition of No Significant Risk at the Property.

On (insert date) an AUL was recorded and registered on behalf of Grimes Aerospace Company f/k/a FL Aerospace Corporation, at the Middlesex Country Registry of Deeds. The AUL is limited to a Portion of the Property, which also constitutes a Portion of the Disposal Site, and is provided in **Appendix D**.

The AUL does not require restrictions related to potential exposure to groundwater, sediment, or surface water within the Disposal Site, because exposure scenarios identified as being associated with those media are consistent with a condition of No Significant Risk. However, obligations are included in the AUL in the event building construction is proposed within areas where groundwater concentrations are above GW-2 standards.

The restrictions being implemented as part of the AUL are exclusively related to contamination remaining in surface and subsurface soil within the portion of the Property. The primary chemicals of concern for soil are metals, including chromium and hexavalent chromium.

The following is a summary of the permitted and prohibited uses identified in the implemented AUL.

7.3.1 IMPOSED ACTIVITY AND USE RESTRICTIONS

The following Activities and Uses are restricted to maintain a Permanent Solution and a condition of No Significant Risk:

- A Portion of the Property shall not be used as a single-family or multi-family residence; as an elementary or secondary school, kindergarten, preschool, or daycare; or for active recreational use such as playing fields or a playground.
- The Portion of the Property shall not be used for the cultivation of plants such as fruits or vegetables for human consumption, and other agricultural uses.

DRAFT

The following Activities and Uses are consistent with maintaining a Permanent Solution and a condition of No Significant Risk (and as such may occur on the Portion of the Property subject to the AUL):

- Activities and uses consistent with commercial and industrial uses, including landscaping and grounds-keeping activities.
- Construction and utility activities that are consistent with the maintenance or repair associated with subsurface utility work or Site improvements within the Portion of the Property, provided that subsurface activities are conducted in accordance with the requirements for remedial actions within an area subject to an Activity and Use Limitation after the submittal of a Permanent Solution Statement set forth by the Massachusetts Contingency Plan (MCP) in 310 CMR 40.1067(4), the soil management procedures set forth in 310 CMR 40.0030, applicable worker, health and safety practices pursuant to 310 CMR 40.0018; and the Obligations and Conditions (discussed below);

7.3.2 OBLIGATIONS AND CONDITIONS TO THE AUL

The following obligations and conditions are necessary to maintain the imposed restrictions/conditions:

- An activity or use identified in section 7.3.1 as being inconsistent with maintaining No Significant Risk shall not be undertaken without the prior evaluation by an LSP.
- Prior to building construction within the areas where groundwater concentrations are above GW-2 standards within the AUL boundary, an LSP must demonstrate that vapor intrusion from soil and groundwater poses No Significant Risk of harm to human health, or if such a demonstration cannot be made, the building construction must incorporate measures to prevent vapor intrusion, including but not limited to a vapor barrier, passive sub-slab venting system, active sub-slab depressurization system, or ventilated parking garage or open air structure at the ground level, with post-construction monitoring performed to confirm the effectiveness of the measures.
- A Health and Safety Plan and a Soil Management Plan must be prepared and implemented prior to the commencement of any planned (non-emergency) intrusive subsurface activities associated with construction or non-emergency utility work. The

DRAFT

Health and Safety Plan must be prepared by a Certified Industrial Hygienist or other qualified professional sufficiently trained in worker health and safety requirements. The Health and Safety Plan and the Soil Management Plan must be developed and implemented in accordance with the guidelines provided by the AUL.

7.4 RESIDUAL GROUNDWATER CONCENTRATIONS IN THE MAIN STREET PUBLIC WAY

A section of the Main Street public way in front of the Property falls within the Disposal Site Boundary for RTN 2-0000053. The soil above the water table in this section of the public way is not impacted by releases from the Property. Utility or construction workers conducting excavations in this section of the public way could come into contact with residual contamination in groundwater migrating from the Property. However, the Method 3 Risk Characterization concluded that direct contact with groundwater in the entire area downgradient of the Property poses No Significant Risk to construction workers, utility workers and emergency utility workers. Therefore, there are no obligations to conduct construction or utility work in this section of Main Street, either as a Utility-Related Abatement Measure or Release Abatement Measure. If construction dewatering is conducted, groundwater should be returned directly to the subsurface within the Disposal Site Boundary as close as possible to the point of withdrawal. If groundwater cannot be returned to the subsurface, it must be properly disposed of in accordance with 310 CMR 40.0030.

DRAFT

8.0 PERMANENT SOLUTION STATEMENT

8.1 SOURCE ELIMINATION OR CONTROL

WSP has prepared a Permanent Solution with Conditions Statement on behalf of our client, Grimes Aerospace Company f/k/a FL Aerospace Corporation, a wholly owned subsidiary of Honeywell. This report documents the response actions completed to assess and remediate release(s) of an unknown volume of VOCs and metals resulting from the historic operation and use of the Property. The area where VOCs and metals have come to be located as a result of historical release(s) is termed the Disposal Site, the boundaries of which are depicted in **Figure 2.**

A demonstration that all sources of OHM contamination have been eliminated or controlled, as specified in 310 CMR 40.1003(5)(a) and (b) is required for this Permanent Solution.

The sources of the Release have been eliminated and the extent of residual soil and groundwater impacts are detailed in Sections 4.0 and 7.0 respectively. Long-term monitoring has demonstrated that groundwater impacts are not migrating, and concentrations are below the applicable UCLs. The Method 3 Risk Characterization concluded that a condition of No Significant Risk to human health exists for the exposure scenarios evaluated for current and future conditions with the implementation of an AUL on a portion of the Property. There are no other ongoing sources of contamination at the Site. The updated ecological risk assessment concluded that there is no risk or potential for biological harm to environmental receptors.

8.2 EVALUATION OF FEASIBILITY OF ACHIEVING OR APPROACHING BACKGROUND

A condition of No Significant Risk has been met for the Site.

DRAFT

However, levels of persistent and non-persistent oil and/or hazardous materials (OHM), metals and VOCs, have not been reduced to background in soil, groundwater, or surface water as defined at 310 CMR 40.0006. Residual concentrations of total chromium, hexavalent chromium, and several VOCs (TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE, and vinyl chloride) are present in groundwater. Residual concentrations of several dissolved metals (including chromium, copper, and magnesium) and total metals (including hexavalent chromium) and TCE are present in surface water. Residual concentrations of several metals (including hexavalent chromium and chromium), petroleum hydrocarbons, and SVOCS are present in soils on-Property.

Therefore, as required by 310 CMR 40.1020(3) of the MCP for sites where background levels have not been met, the feasibility of reducing OHM in the environment at the Site to levels that achieve, or approach background must be evaluated. This is accomplished using the criteria outlined in 310 CMR 40.0860 in each case where one or more remedial actions have been undertaken to achieve a Permanent Solution. This feasibility evaluation has been prepared following MassDEP guidance entitled "Conducting Feasibility Evaluations Under the MCP", MassDEP Final Policy #WSC-04-160, July 2004 (the "Feasibility Policy").

The completed remedial activities were designed to achieve a Permanent Solution at the Site addressed herein based on the following criteria of 310 CMR 40.0850(4):

- The selected remedial technologies were technically feasible.
- The costs of implementing the alternatives were justified by the benefits.
- Individuals with the expertise required to implement the alternatives were available.
- The selected alternative did not require the land disposal of oil or hazardous materials for which there are no current facilities available to accept such materials.

DRAFT

- The alternative was implemented at the source to reduce and/or eliminate source area contamination.

In accordance with the 310 CMR 40.1020(3) of the MCP and the Policy, WSP has performed an evaluation of the feasibility of achieving or approaching background concentrations in groundwater and soil at the Site. Groundwater discharges to the Unnamed Brook in the section of the stream immediately adjacent to the Property. Therefore, for the purposes of this evaluation, it is assumed that achieving or approaching background in groundwater will result in concentrations that achieve or approach background in surface water.

8.2.1 CONDITIONS OF CATEGORICAL FEASIBILITY IN SOIL

Conditions of categorical feasibility include Site conditions whereby a Condition of No Significant Risk is achieved, and the remaining impacts are limited to 20 cubic yards or less of impacted soil where such soil is:

- Located less than three feet below the ground surface.
- Not covered by pavement or a permanent structure.
- Not located within a sensitive environment (i.e., wetlands); and
- Not located in an area where soil removal would substantially interrupt public service or threaten public safety.

At this Site, conditions of categorical feasibility do not apply because the remaining volume of contaminated soil is greater than 20 cubic yards and is present at depths greater than three feet below the ground surface or below the former ConductorLab building slab and existing pavement on-Property.

Off-Property soil has not been impacted by the release and is not part of the Disposal Site; therefore, this feasibility evaluation focuses on the on-Property soil.

DRAFT

8.2.2 CONDITIONS OF CATEGORICAL INFEASIBILITY IN SOIL

Conditions of categorical infeasibility include the following conditions:

- Excavation beneath a permanent structure.
- Remedial actions that would substantially interrupt public service or threaten public safety.
- Remediation of degradable (nonpersistent) contaminants; and
- Remediation of persistent contaminants located in S-2 and S-3 soils.

On-Property residual soil contamination is located from 0 to 15 feet bgs beneath existing pavement and the former building slabs. Residual soil impacts contain contaminants that are both nonpersistent (select VOCs and petroleum hydrocarbons) and persistent (select CVOCs and metals) and located within S-2 and/or S-3 category soils.

Per the MCP, for current land use, on-Property, unpaved soil from 0-3 feet bgs is classified as soil category, S-2. Currently, soil beneath the slab, unpaved soil from 3-15 feet bgs, and soil deeper than 15 feet bgs are classified as S-3 based on a low frequency/low intensity use by a trespasser. Under future conditions (for soil located On-Property), if the future use of the property includes commercial or industrial activities, and/or the slab is removed and the soil is neither paved nor covered, the soil categories that would apply continue to be S-2 for unpaved soil from 0-3 feet bgs and S-3 for unpaved soil from 3-15 feet bgs and soil deeper than 15 feet bgs. However, if the on-Property portion of the Site is paved or covered by a building in the future, then soil category S-3 would apply for soil at all depths. These soil categories are explained in more detail in the Method 3 Risk Characterization (**Appendix C**).

Therefore, it is infeasible to approach background levels for residual non-persistent compounds in soil. Furthermore, achieving or approaching background for the persistent compounds remaining at the Site is also deemed infeasible. These persistent compounds are located in soil with lower exposure potential, and it is considered categorically infeasible to achieve or approach background.

DRAFT

8.2.3 CONDITIONS OF CATEGORICAL FEASIBILITY IN GROUNDWATER

Groundwater impacts at the Site consist of both persistent and nonpersistent contaminants. In accordance with the Feasibility Policy, at sites containing both persistent and nonpersistent contaminants, the nonpersistent contaminants can be eliminated from the feasibility evaluation. Therefore, this evaluation of feasibility to achieve background concentrations in groundwater will focus on the residual concentrations of persistent contaminants in groundwater.

Additionally, the Feasibility Policy indicates that background concentrations of persistent contaminants in groundwater shall be considered approached in areas classified as GW-1, GW-2, or GW-3, if the concentrations at each exposure point are at or below ½ the applicable Method 1 groundwater standard.

The exposure point concentrations (EPC) of select persistent VOCs and metals, such as TCE, cis-1,2-DCE, vinyl chloride, hexavalent chromium, and chromium are not considered to be approaching background. Refer to the Method 3 Risk Characterization EPC tables included in **Appendix C.**

Therefore, based on the current Site conditions, additional removal and/or remediation of impacted groundwater would likely have to occur to achieve background concentrations of the contaminants of concern (COC). The evaluation includes review of technological and cost-benefit elements such as:

- Evaluation of the availability of at least one remedial action/technology that exists and is available to implement for the purposes of approaching or achieving background; and
- Determining if the costs to conduct said remedial action are equal to or less than 20 percent of the cost to remediate to a condition of No Significant Risk to achieve or approach background.

DRAFT

Based on this evaluation, it is concluded to be infeasible to reach or approach background for groundwater contaminants. Documentation supporting this determination of infeasibility is provided below.

8.2.4 CONDITIONS ACHIEVING OR APPROACHING BACKGROUND FOR PERSISTENT COMPOUNDS IN GROUNDWATER

Under current and future (with AUL) use of the Site there is No Significant Risk associated with groundwater. Remedial actions were taken from 1991 to 2020 to remove CVOCs and metals from groundwater and surface water.

Operation of the groundwater treatment system from 1991 to 2012 significantly reduced CVOC concentrations in groundwater on-Property. ISCO injections from 2009 to 2016 further reduced CVOC concentrations in groundwater and ZVI injections in 2019 during the pilot test and during the 2020 Phase IV program have reduced chromium and hexavalent chromium. No additional remedial actions have been taken or are proposed to reduce or eliminate contaminants in groundwater.

WSP has determined that while it may be technically feasible to meet or approach background levels of contaminants in Site groundwater, the costs to do so would be disproportionate to the benefit. The most likely remedial approach would be to continue in situ treatment such as ZVI and ISCO. The selected remedial approach would be applied over the approximately 3.2-acre Property at on-Property locations with elevated groundwater concentrations (similar to the earlier injection activities).

In order to reach or approach background, remedial efforts would require doubling the size of the 2020 injection area, completing at least two rounds of injections, and potentially installing and starting up a groundwater treatment system as a final polishing step.

The remediation costs associated with an effort of this scale would be significant, and with inflation, costs are estimated to be well over approximately $5,000,000.

DRAFT

This estimate is based on costs incurred for both the ISCO and ZVI injection treatments, and at least one year of operation of a groundwater treatment system. This cost does not include any necessary pre- and post-monitoring analytical costs. This would significantly exceed 20 percent of all costs spent to date to reach the current condition of No Significant Risk. Therefore, in accordance with the Feasibility Policy, it is concluded that approaching background in groundwater is infeasible. Furthermore, as stated in Section 3.3, the groundwater discharges seasonally to the surface water in the Unnamed Brook; therefore, if background concentrations were reached in Site groundwater, then background concentrations could be achieved in the Brook.

8.2.5 EVALUATION OF INFEASIBILITY CONCLUSIONS

Based on application of the criteria outlined in the Feasibility Policy to the specific conditions at the Disposal Site, it is infeasible to achieve or approach background in soil, groundwater, and surface water.

Achieving or approaching background for contaminants in soil is considered infeasible because:

- residual soil contamination is located from 0 to 15 feet bgs and on-Property beneath existing pavement and the former building slabs; and
- residual soil impacts contain contaminants that are both non-persistent (select VOCs and petroleum hydrocarbons) and persistent (select CVOCs and metals) at the Site and located within soil S-2 and/or S-3).

Achieving or approaching background for contaminants in groundwater and surface water is considered infeasible because:

- the groundwater currently meets a condition of No Significant Risk, and
- costs to reach or approach background levels will significantly exceed 20% of the costs already expended to reach a condition of No Significant Risk.

DRAFT

8.3 PERMANENT SOLUTION STATEMENT LSP OPINION

The sources of contamination for the "Former ConductorLab Property" Site (2-0000053) have been eliminated. The manufacturing processes which led to the inadvertent releases of VOCs and metals were discontinued in 1985 and the buildings were razed in 1988 and 1989. Several remedial actions were implemented to reduce concentrations of OHM to the environment. There are no current risks to human health and no current or future risks to public welfare, the environment, or safety at the Site. This Permanent Solution includes an AUL and conditions to address potential future risks to human health.

It is infeasible to achieve or approach background for soil and groundwater as the costs for further remedial actions are substantial and disproportionate to the additional risk reduction that would be achieved (because a condition of No Significant Risk already exists).

In accordance with 310 CMR 40.1041(2), a PSS with Conditions applies to the release since:

- A level of No Significant Risk, as specified in 310 CMR 40.0900, has been achieved.
- All sources of oil and/or hazardous materials ("OHM") contamination have been eliminated or controlled, as specified in 310 CMR 40.1003(5)(a) and (b).
- Control of the plume of dissolved OHM present in groundwater at the Site has been achieved through groundwater remediation. Post-remediation monitoring has demonstrated that any residual concentrations of OHM in groundwater are stable or declining.
- Assessment activities demonstrated that vapor intrusion is not occurring in occupied residential buildings in the off-Property area.

DRAFT

- Because the on-Property portion of the groundwater plume has been remediated, groundwater concentrations in off-Property downgradient areas and associated concentrations in the vadose zone will continue to decline. Therefore, control of vapor-phase OHM in the vadose zone has been achieved.
- Non-Aqueous Phase Liquid ("NAPL") is not present.
- All threats of release have been eliminated.
- The level of OHM in the environment has been reduced to as close to background levels as feasible as specified in 310 CMR 40.1020.
- Exposure Point Concentrations of OHM do not exceed the applicable Upper Concentration Limits ("UCLs") in soil or groundwater; and

The following Conditions apply to the PSS:

- Notices Restricting Use of Groundwater were previously recorded to prevent use of groundwater for personal, domestic, or industrial uses at the Site.

- A Condition pursuant to 310 CMR 40.1013(1)(d) is applied to currently undeveloped property within the Disposal Site Boundary where groundwater concentrations exceed GW-2 Standards. In the event that a building is proposed for construction at the Property in the future or at downgradient undeveloped/vacant properties, it is a Condition of this PSS that the potential vapor intrusion pathway be assessed and ruled out or mitigated.

  An Activity and Use Limitation (AUL) has been filed for a Portion of the Property to maintain a level of No Significant Risk for all foreseeable future uses of the Portion of the Property. The AUL not only requires assessment of the vapor intrusion pathway for future development on the Portion of the Property, as described in the preceding bullet, but it restricts residential development and other sensitive uses of the Portion of the Property and requires soil

DRAFT

management and health and safety procedures for activities disturbing subsurface soils.

Finally, the Conditions of the PSS address residual groundwater concentrations in the portion of the Main Street public way that lies within the Disposal Site Boundary for RTN 2-0000053. The soil above the water table in this section of the public way is not impacted by releases from the Property. Residual concentrations of Site-related compounds present in the groundwater pose No Significant Risk to construction workers, utility workers and emergency utility workers, but require that water generated during construction dewatering be properly managed.

DRAFT

9.0 REFERENCES

1993 Phase II Risk Assessment, Conductorlab. HMM Associates, Inc. July.

1994 Response to DEP Comments on "Phase II Risk Assessment, Conductorlab." HMM Associates, Inc. February.

1994 Environmental Risk Assessment. Earth Tech. September.

1994 Response to DEP Comments on "Phase II Risk Assessment," dated July 1993 and "Risk Assessment Addendum" dated February 22, 1994. HMM Associates, Inc. October.

1995 Earth Tech. Phase III Remedial Action Plan. Prepared for Grimes Aerospace. February.

1996 Notices Restricting Use of Groundwater. Earth Tech. February.

1996 Class C-Response Action Outcome Statement. Earth Tech. February.

2009 Phase III Remedial Action Plan Amendment, Conductorlab Site (RTN 2-0053). Groton, Massachusetts. June.

2009 Phase IV Remedial Implementation Plan Amendment, Conductorlab Site (RTN 2-0053), Groton, Massachusetts. August.

2014 Massachusetts Department of Environmental Protection (MassDEP) *310 CMR 40.0000, Massachusetts Contingency Plan (MCP).* Bureau of Waste Site Cleanup. Boston, Massachusetts. April 25.

2015 Substantial Hazard Evaluation, Conductorlab Site (RTN 2-0053), Groton, Massachusetts. July 22.

2015 Phase IV Remedial Implementation Plan Amendment, Conductorlab Site (RTN 2-00053), Groton, Massachusetts. November.

DRAFT

2016 (MassDEP) *Vapor Intrusion Guidance: Site Assessment, Mitigation and Closure* WSC#-16-435. October 14.

2016 Periodic Review of Temporary Solution, Conductorlab Site (RTN 2-0053), Groton, Massachusetts. July.

2017 Temporary Solution – Operation, Maintenance, and Monitoring Report July-December 2016, Conductorlab Site (RTN 2-0053), Groton, Massachusetts. April.

2017 Temporary Solution – Operation, Maintenance, and Monitoring Report July-December 2016, Conductorlab Site (RTN 2-0053), Groton, Massachusetts. April.

2017 Temporary Solution – Operation, Maintenance, and Monitoring Report January-June 2017, Conductorlab Site (RTN 2-0053), Groton, Massachusetts. October.

2018a EnviroSystems. Toxicological Evaluation of Surface Water Samples. Ceriodaphnia dubia Survival and Reproduction Evaluation. July.

2018b EnviroSystems. Toxicological Evaluation of Surface Water Samples. Toxicity Reduction Evaluation. September.

2018 Temporary Solution – Operation, Maintenance, and Monitoring Report July-December 2017, Conductorlab Site (RTN 2-0053), Groton, Massachusetts. May.

2018 Temporary Solution – Operation, Maintenance, and Monitoring Report, January-June 2018, Conductorlab Site (RTN 2-0053), Groton, Massachusetts. September.

2019 Enthalpy. Toxicological Evaluation of Surface Water Samples. Ceriodaphnia dubia Survival and Reproduction Evaluation. May.

DRAFT

2019 Temporary Solution – Operation, Maintenance, and Monitoring Report July-December 2018, Conductorlab Site (RTN 2-0053), Groton, Massachusetts. April.

2019 Temporary Solution – Operation, Maintenance, and Monitoring Report, January-June 2019, Conductorlab Site (RTN 2-0053), Groton, Massachusetts. October.

2019 Phase IV Remedial Implementation Plan Amendment, Conductorlab Site (RTN 2-00053), Groton, Massachusetts. September

2020 Temporary Solution – Operation, Maintenance, and Monitoring Report, January-June 2019, Conductorlab Site (RTN 2-0053), Groton, Massachusetts. October.

2021 Temporary Solution – Operation, Maintenance, and Monitoring Report, January-June 2020, Conductorlab Site (RTN 2-0053), Groton, Massachusetts. October.

2022 Temporary Solution – Operation, Maintenance, and Monitoring Report, July-December 2021, Conductorlab Site (RTN 2-0053), Groton, Massachusetts. October.

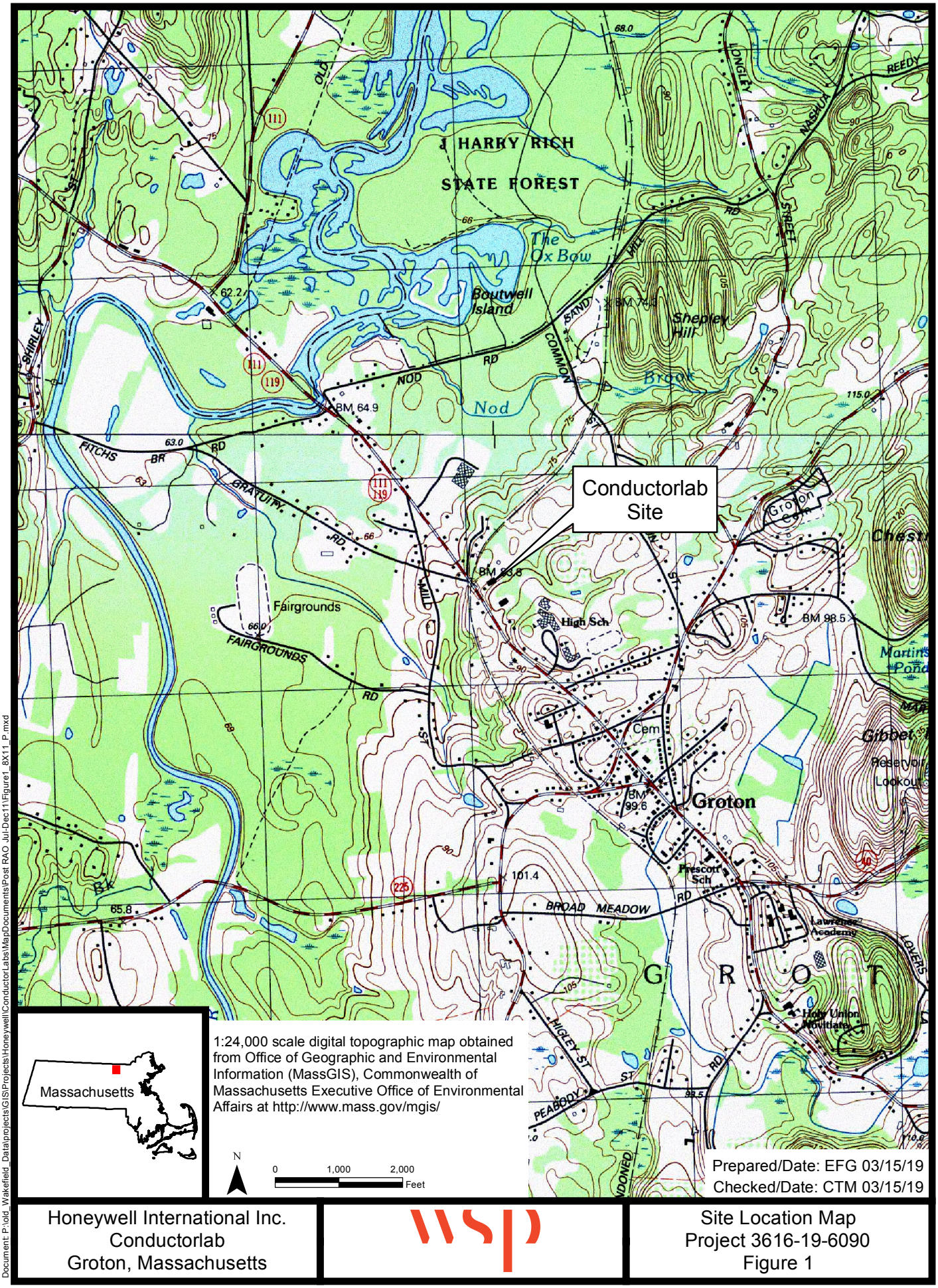
.

DRAFT

Honeywell

FIGURES

DRAFT

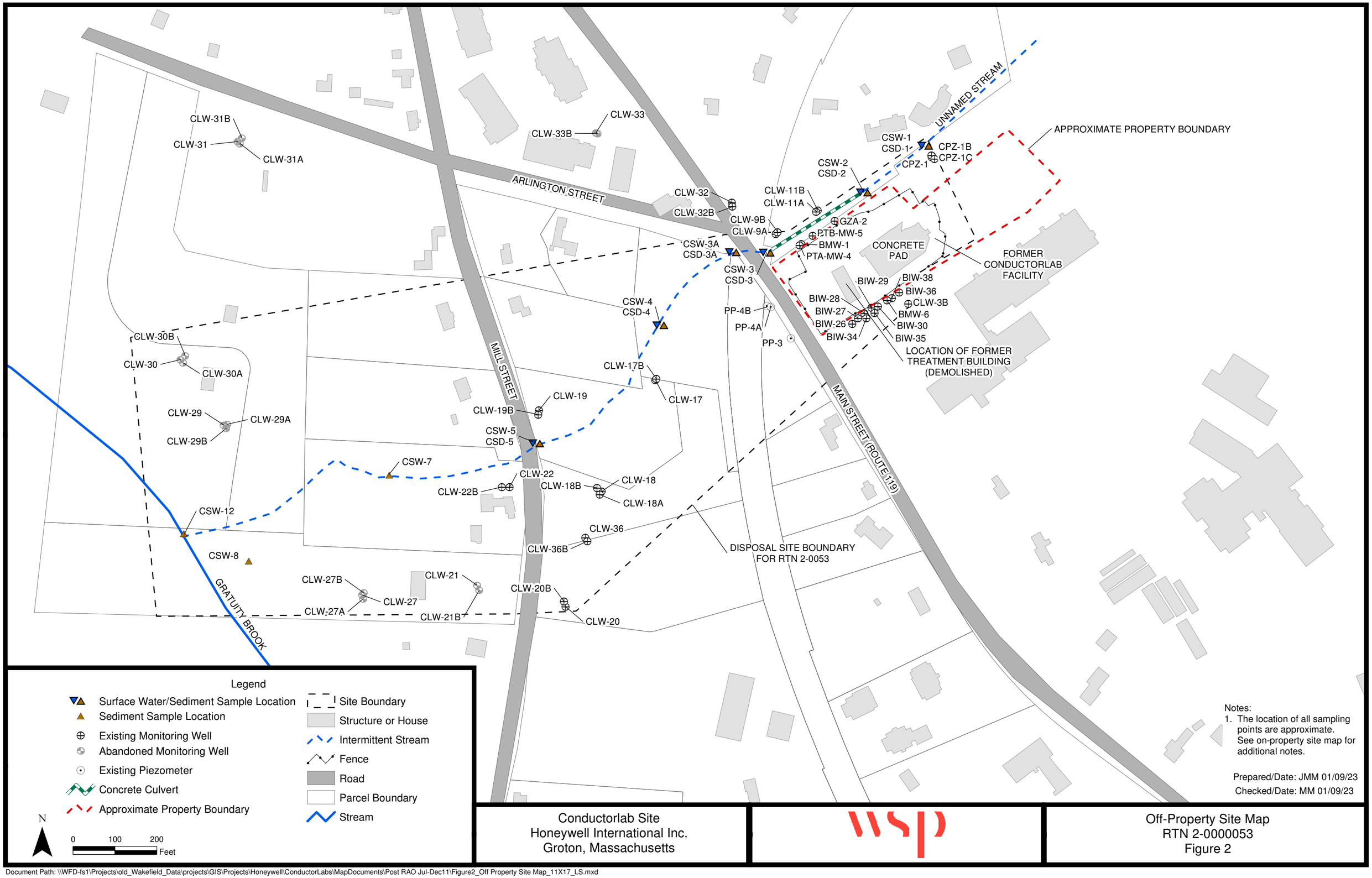


Honeywell International Inc.
Conductorlab
Groton, Massachusetts

wsp

Site Location Map
Project 3616-19-6090
Figure 1

Document: P:\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLabs\MapDocuments\Post RAO Jul-Dec11\Figure1_8X11_P.mxd



Notes:
1. The location of all sampling points are approximate. See on-property site map for additional notes.

Prepared/Date: JMM 01/09/23
Checked/Date: MM 01/09/23

Conductorlab Site
Honeywell International Inc.
Groton, Massachusetts

wsp

Off-Property Site Map
RTN 2-0000053
Figure 2

Document Path: \\WFD-fs1\Projects\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLabs\MapDocuments\Post RAO Jul-Dec11\Figure2_Off Property Site Map_11X17_LS.mxd

Notes:
1. The location of soil borings, recovery/monitoring wells and significant site features were based on the elevation surveys conducted by CABCO Consult of Clinton, MA in 2004, 2006, and 2007. The vertical datum elevations were based on MA Geodetic survey station 81G which is based on the National Geodetic Vertical Datum of 1929 NGVD29).
2. Utilities shown on drawing were derived from the observation of subsurface evidence, wtility companies paint markings, and maps and utility maps obtained from the town of Groton Engineer and/or DPW offices. It should be noted that the utility information provided on the drawing is to be considered approximate.

Legend

Monitoring Well
Piezometer
Recovery Well
Stream
Tree Line
Fence
Property Boundary
Regulated Wetland Resource Area
Approximate Property Boundary

0 25 50 Feet

Conductorlab Site
Honeywell International Inc.
Groton, Massachusetts

wsp

On-Property Site Map
RTN 2-0000053
Figure 3

Document: P:\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLabs\MapDocuments\Post RAO Jul-Dec11\SitePlan_Dsize.mxd PDF: P:\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLabs\Figures\Potential Injection Areas.pdf 10/2/2015 11:37 AM brian.roden

MassDEP - Bureau of Waste Site Cleanup

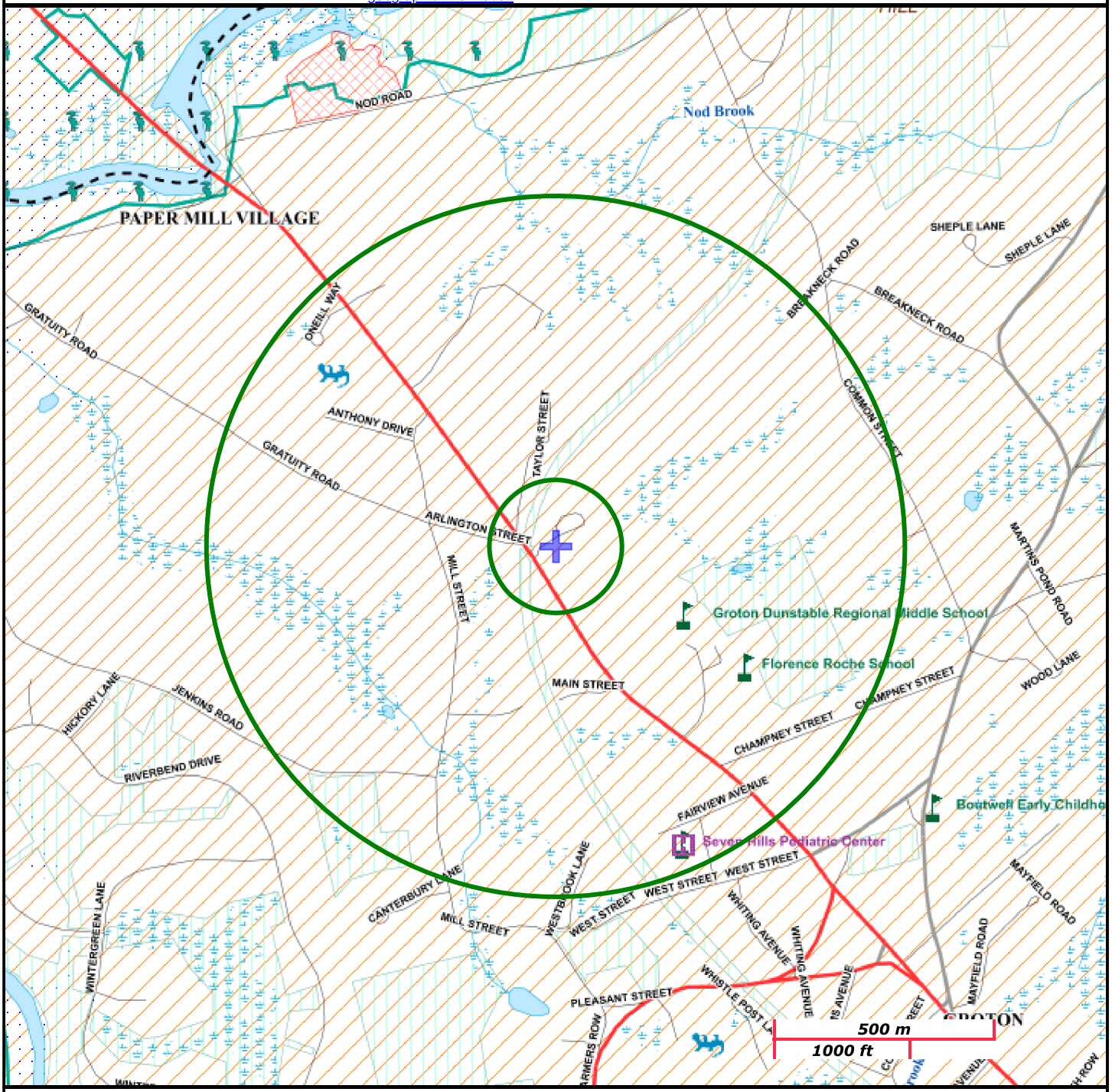
FIGURE 4

Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

Site Information:
FORMER CONDUCTORLAB
430 MAIN ST EET GROTON, MA
2-000000053
NAD83 UTM ters:
4721711mN , 288132mE (Zone: 19)
June 27, 2022

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: https://www.mass.gov/orgs/massgis-bureau-of-geographic-information.

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail

Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct

Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam

Aquifers: Medium Yield, High Yield, EPA Sole Source

Non Potential Drinking Water Source Area: Medium, High (Yield)

PWS Protection Areas: Zone II, IWPA, Zone A

Hydrography: Open Water, PWS Reservoir, Tidal Flat

Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

NHESP Pri-Hab of Rare Species; Vernal Pool: Cert., Potential

Solid Waste Landfill; PWS: Com.GW,SW, Emerg., Non-Com.

#110-27
#110-26
#216-1
#110-24
#110-23
#110-29
#110-11
#110-33
APPROXIMATE PROPERTY BOUNDARY FORMER CONDUCTOR LAB FACILITY
APPROXIMATE AUL BOUNDARY
#110-35
FORMER TREATMENT BLDG SLAB
#110-10
#216-47
#110-22
#110-12
#110-09
#110-36
MILL STREET
#110-07
MAIN STREET
GRATUITY BROOK
#110-21
#110-25.2
#110-13
NASHOBA RIVER RAIL TRAIL
#110-25.1
#110-14
#110-20
#110-15
#110-19
DISPOSAL SITE BOUNDARY
RTN 2-0000053

Notes:
1. The Groundwater Condition Boundary is in accordance with 310 CMR 40.1013(1)(d).
2. Refer to the 2023 Permanent Solution Statement with Conditions for additional details.
3. The former parcel ID I-49 was subdivided into the current parcels #110-21, #110-22, #110-25.1 and #110-25.2. Parcel ID I-49A was reconfigured into Parcel #110-20.

LEGEND

- APPROX. PROPERTY BOUNDARY
- DISPOSAL SITE BOUNDARY
- INTERMITTENT STREAM
- BUILDING / STRUCTURE
- OFF-PROPERTY PARCEL BOUNDARY
- MCP METHOD 1 GW-2 GROUNDWATER CONDITION BOUNDARY
- ACTIVITY AND USE LIMITATION (AUL) BOUNDARY
- #110-35 PARCEL ID NO. (TOWN OF GROTON GIS)
- NOTICE RESTRICTING USE OF GROUNDWATER RECORDED

0' 100' 200' 300'
1" = 200'

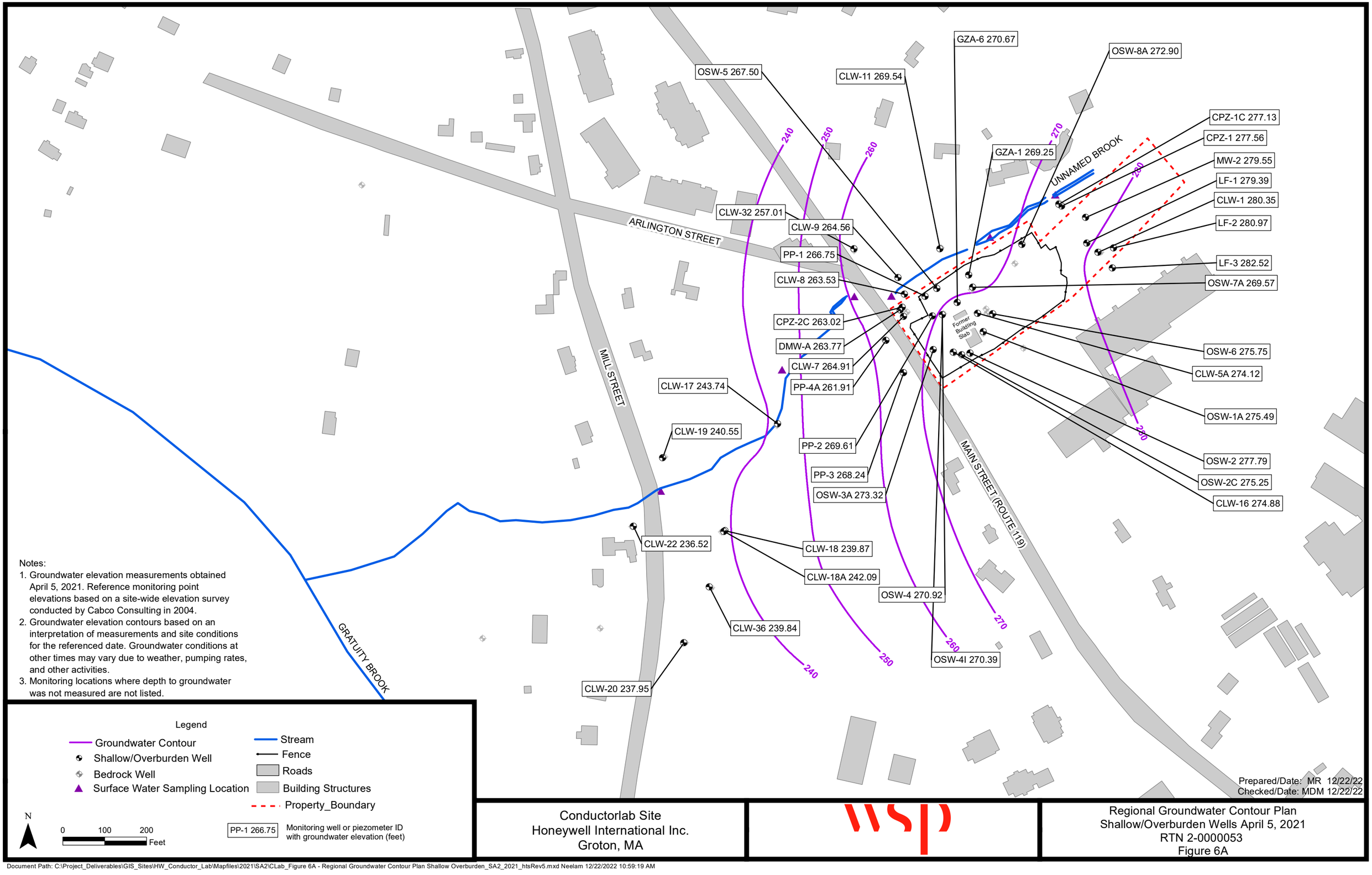
Prepared By/Date: MDM 03/14/23
Checked By/Date: KMH 03/14/23

Former Conductor Lab Site
Honeywelll International Inc.
Groton, MA

wsp

Site Boundary Conditions Plan
Figure 5
RTN 2-0000053

\\woodplc.net\Wood\US\WFD\Projects\old_Wakefield_Data\projects\3617147336 – CLAB incl 3617177412 – 3616196090\CAD\Figure 9 – Site Boundary Plan.dwg – Figure 5 – Mar. 27, 2023 3:17pm – mykel.mendes



Notes:
1. Groundwater elevation measurements obtained April 5, 2021. Reference monitoring point elevations based on a site-wide elevation survey conducted by Cabco Consulting in 2004.
2. Groundwater elevation contours based on an interpretation of measurements and site conditions for the referenced date. Groundwater conditions at other times may vary due to weather, pumping rates, and other activities.
3. Monitoring locations where depth to groundwater was not measured are not listed.

Legend

- Groundwater Contour
- Shallow/Overburden Well
- Bedrock Well
- Surface Water Sampling Location
- Stream
- Fence
- Roads
- Building Structures
- Property_Boundary

N

0 100 200 Feet

PP-1 266.75 Monitoring well or piezometer ID with groundwater elevation (feet)

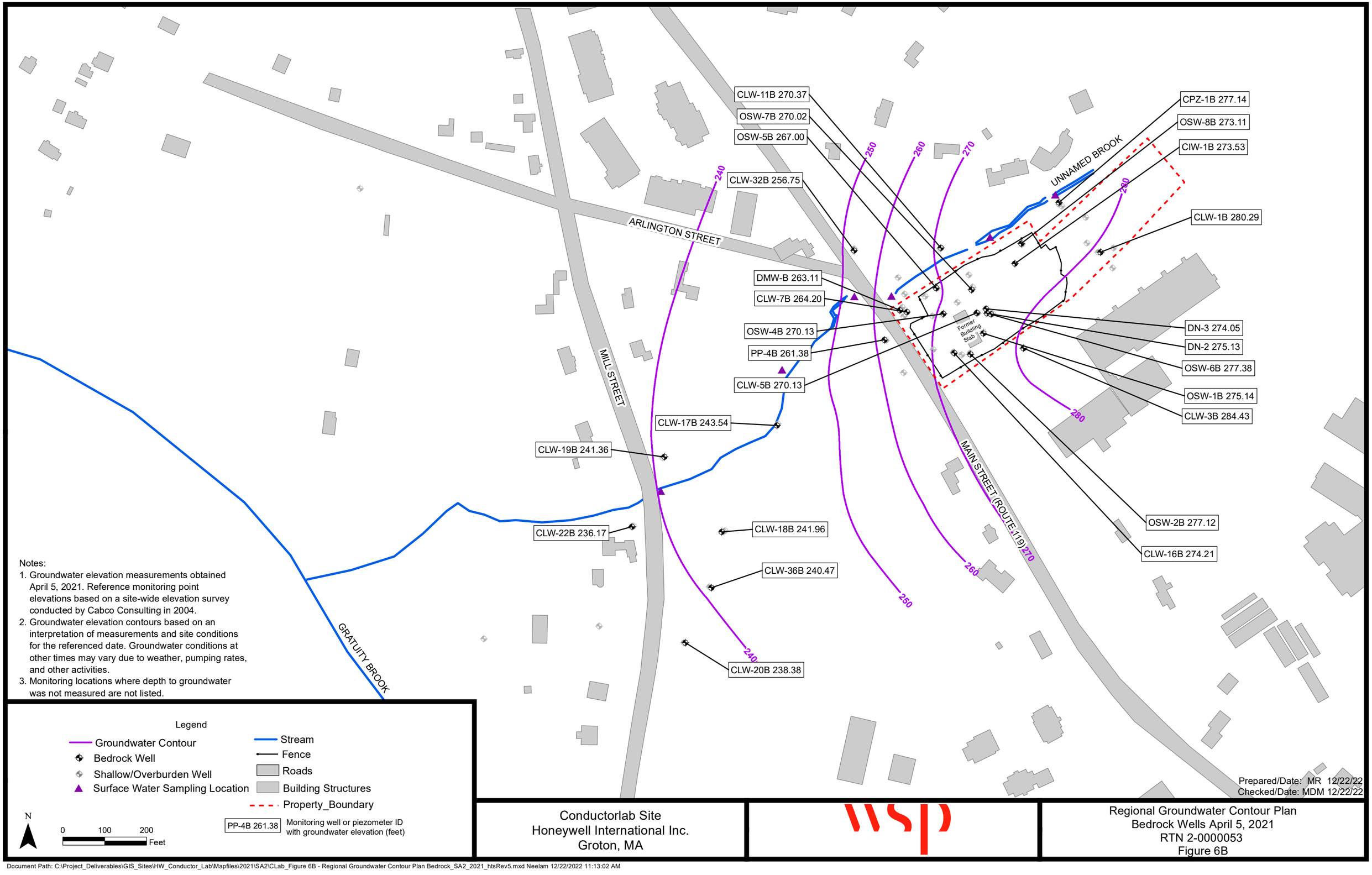
Conductorlab Site
Honeywell International Inc.
Groton, MA

wsp

Regional Groundwater Contour Plan
Shallow/Overburden Wells April 5, 2021
RTN 2-0000053
Figure 6A

Prepared/Date: MR 12/22/22
Checked/Date: MDM 12/22/22

Document Path: C:\Project_Deliverables\GIS_Sites\HW_Conductor_Lab\Mapfiles\2021\SA2\CLab_Figure 6A - Regional Groundwater Contour Plan Shallow Overburden_SA2_2021_htsRev5.mxd Neelam 12/22/2022 10:59:19 AM

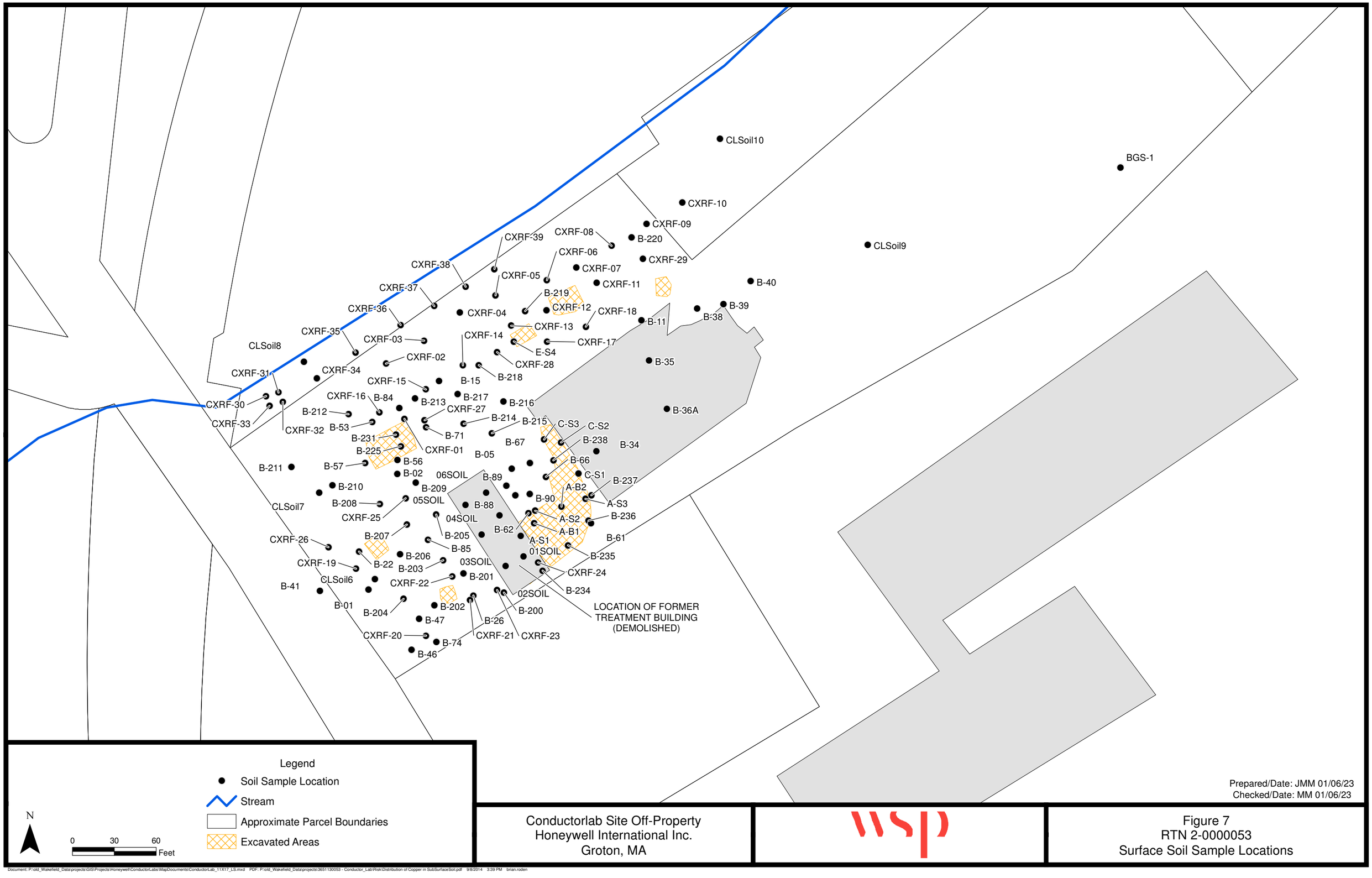


Conductorlab Site
Honeywell International Inc.
Groton, MA

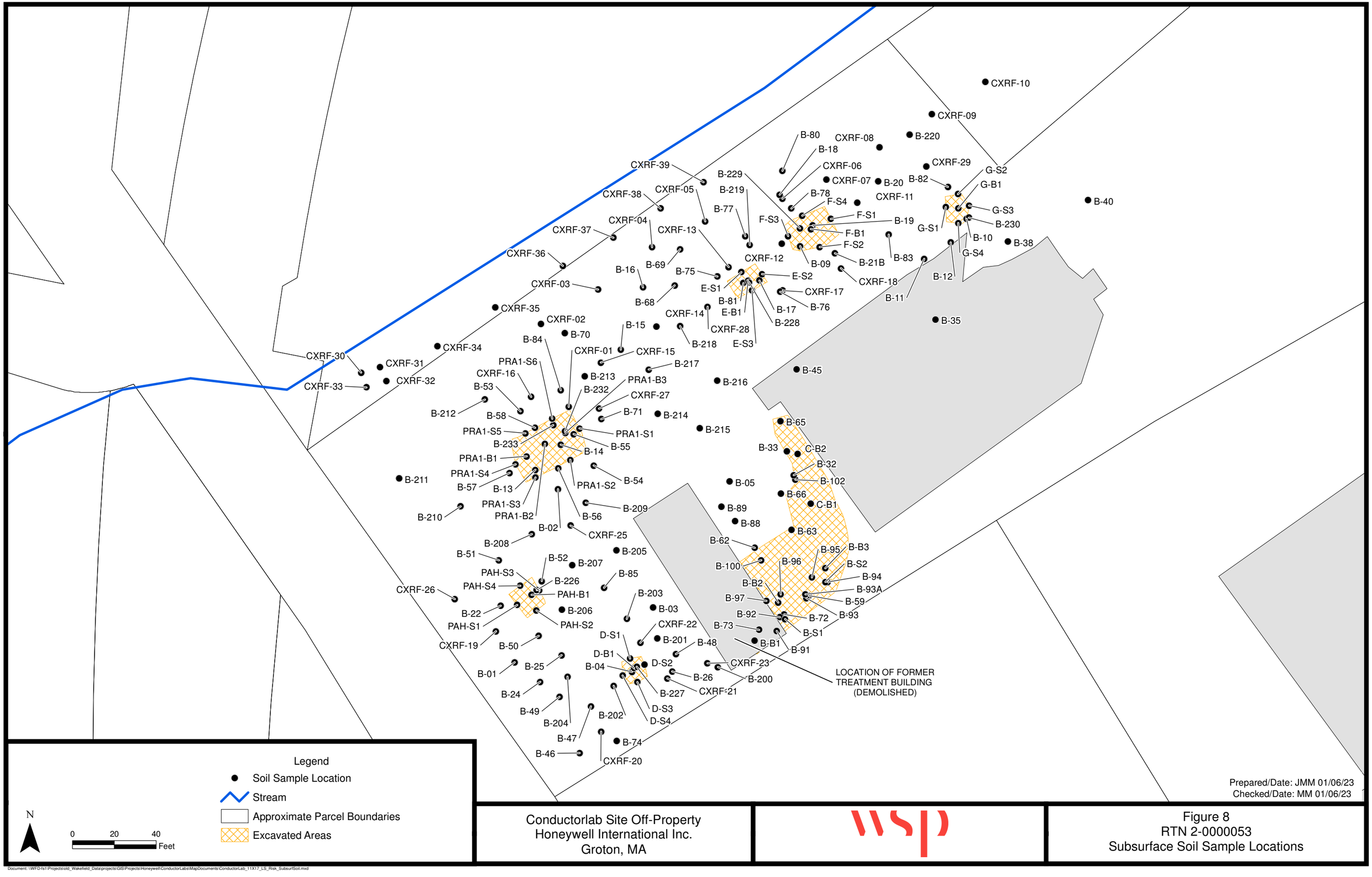
wsp

Regional Groundwater Contour Plan
Bedrock Wells April 5, 2021
RTN 2-0000053
Figure 6B

Document Path: C:\Project_Deliverables\GIS_Sites\HW_Conductor_Lab\Mapfiles\2021\SA2\CLab_Figure 6B - Regional Groundwater Contour Plan Bedrock_SA2_2021_htsRev5.mxd Neelam 12/22/2022 11:13:02 AM



Document: P:\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLabs\MapDocuments\ConductorLab_11X17_LS.mxd PDF: P:\old_Wakefield_Data\projects\3651130053 - Conductor_Lab\Risk\Distribution of Copper in SubSurfaceSoil.pdf 9/8/2014 3:39 PM brian.roden



Conductorlab Site Off-Property
Honeywell International Inc.
Groton, MA

wsp

Figure 8
RTN 2-0000053
Subsurface Soil Sample Locations

Document: \\WFD-fs1\Projects\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLabs\MapDocuments\ConductorLab_11X17_LS_Risk_SubsurfSoil.mxd

DMW-A	TCE	DCE	VC
Sep-19	1.1	10	1.0 U
Mar-20	4.0	11	1.0 U
Sep-20	2.8	16	1.2
Apr-21	5.0	16	1.0

DMW-B	TCE	DCE	VC
Sep-19	21	69	4.7
Mar-20	51	160	12
Sep-20	13	83	8.5
Apr-21	34	130	4.0

CLW-8	TCE	DCE	VC
Sep-19	37	5.2	1.0 U
Mar-20	28	8.7	1.0 U
Oct-20	11	6.5	1.0 U
Apr-21	11	3.7	1.0 U

PP-2	TCE	DCE	VC
Sep-19	3.4	18	11
Apr-20	34	19	4.2
Oct-20	61	76	9.5
Apr-21	50	30	4.3

OSW-4I	TCE	DCE	VC
Sep-19	32	21	2.7
Mar-20	110	38	2.6
Oct-20	96	35	3.3
Apr-21	170	64	5.2

OSW-7A	TCE	DCE	VC
Sep-19	210	29	1.0 U
Mar-20	17	2.3	1.0 U
Sep-20	6.5 J+	1.0 U	1.0 U
Apr-21	13	1.3	1.0 U

CIW-1B	TCE	DCE	VC
Sep-19	930	210	95
Apr-20	1900	320	120
Oct-20	1,100	270	190
Apr-21	1,000	180	70

CLW-5B	TCE	DCE	VC
Sep-19	340	160	11
Mar-20	15	1.9	1.0 U
Sep-20	290	200	16
Apr-21	41	13	1.0 U

CLW-5A	TCE	DCE	VC
Sep-19	NS	NS	NS
Mar-20	0.80 J	1.0 U	1.0 U
Sep-20	NS	NS	NS
Apr-21	0.72 J	NS	NS

OSW-3A	TCE	DCE	VC
Sep-19	91	13	1.0 U
Mar-20	30	1.7	1.0 U
Apr-21	20	20	NS

OSW-3B	TCE	DCE	VC
Sep-19	40	66	2.0 U
Apr-20	37	59	2.0 U
Oct-20	39	55	2.0 U
Apr-21	92	100	2.0 U

CLW-16B	TCE	DCE	VC
Sep-19	8,700	2,100	780
Apr-20	2700	520	130 U
Oct-20	14,000	2,900	790 J
Apr-21	4,900	480	200 U

OSW-1A	TCE	DCE	VC
Sep-19	7.3	1.0 U	1.0 U
Mar-20	3.4	1.0 U	1.0 U
Oct-20	3.9	1.0 U	1.0 U
Apr-21	2.9	1.0 U	1.0 U

OSW-1B	TCE	DCE	VC
Sep-19	2,100	200	100 U
Mar-20	3900	370	58
Sep-20	1,400	200	21
Apr-21	520	95	10 U

OSW-2B	TCE	DCE	VC
Sep-19	9,300	800	190
Mar-20	830	27	10 U
Oct-20	2,800	260	130 U
Apr-21	1,200	64	18 J

DMW-A
DMW-B
CLW-8
PP-2
OSW-4I
OSW-7A
CIW-1B
CLW-5B
CLW-5A
OSW-3A
OSW-3B
CLW-16B
OSW-2B
OSW-1A
OSW-1B

Legend
- Monitoring Well Sample
- Recovery Well
- Tree Line
- Fence
- Stream
- Property Boundary
- Regulated Wetland Resource Area
- Former Treatment Building

N
0 20 40 Feet

TCE = TRICHLOROETHENE
DCE = CIS-1,2-DICHLOROETHENE
VC = VINYL CHLORIDE
--- = NOT ANALYZED
J = ESTIMATED VALUE
J- = ESTIMATED VALUE WITH LOW BIAS
R = DATA IS UNUSABLE. ANALYTE MAY OR MAY NOT BE PRESENT.
U = COMPOUND NOT DETECTED ABOVE INDICATED REPORTING LIMIT

Analyte
Well ID
Sample Date
Concentration

CIW-1B	TCE	DCE	VC
Apr-16	400	140	61

Notes:
1. Concentrations are reported in ug/L.
2. Results compared to Massachusetts Contingency Plan (MCP) Numerical Standards for screening purposes only
3. NS = Not Sampled
4. MCP GW-2 standards do not currently apply to On- roperty Wells. GW-2 Standards will applies if monitoring wells are within 30 ft of an occupied structure.

MCP NUMERICAL STANDARDS	GW-2	GW-3
TCE	5	5,000
DCE	20	50,000
VC	2	50,000

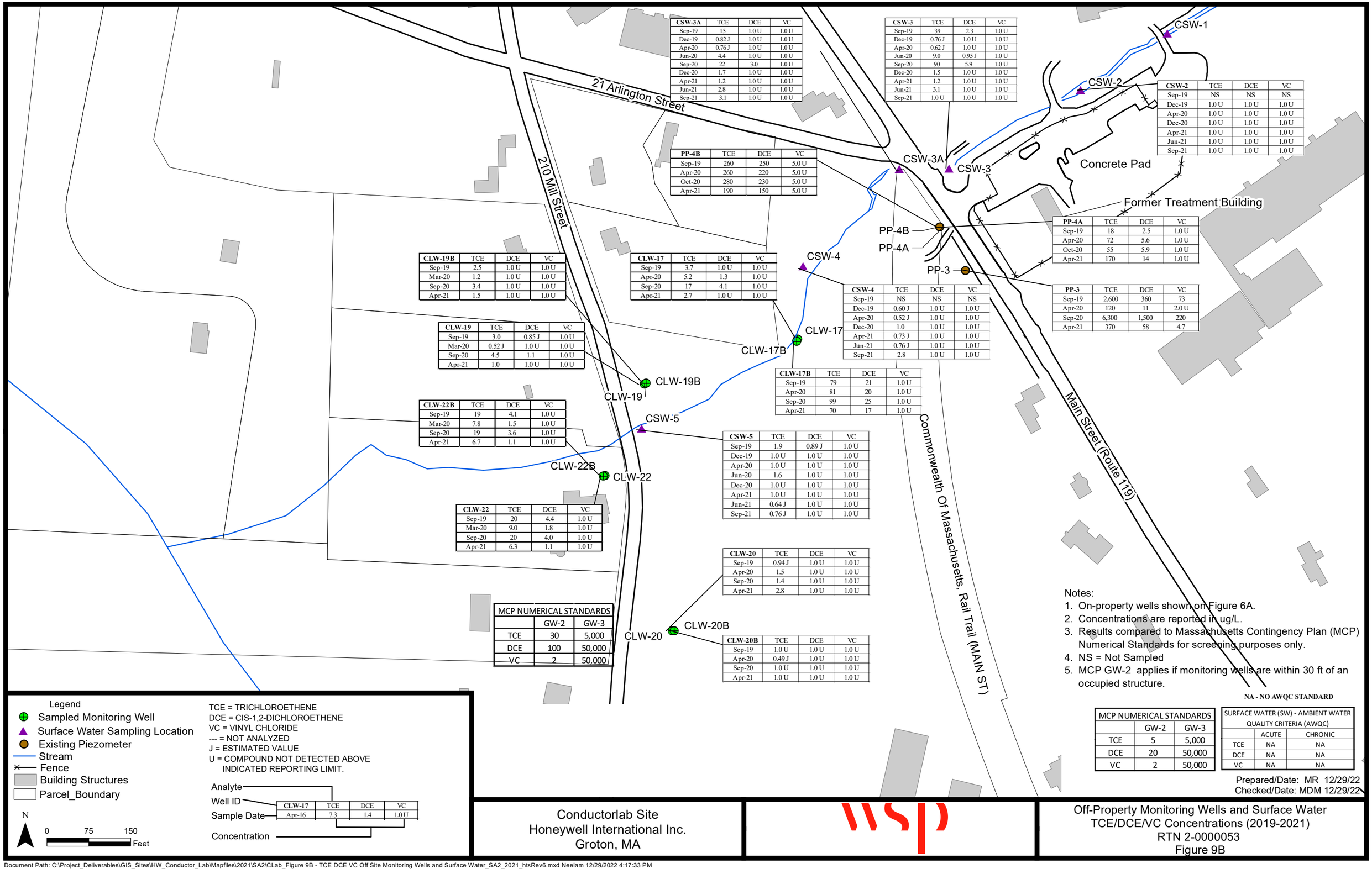
Prepared/Date: MR 12/29/22
Checked/Date: MDM 12/29/22

Conductorlab Site
Honeywell International Inc.
Groton, MA

wsp

On-Property Monitoring Well TCE/DCE/VC
Groundwater Concentrations (2019-2021)
RTN 2-0000053
Figure 9A

Document Path: C:\Project_Deliverables\GIS_Sites\HW_Conductor_Lab\Mapfiles\2021\SA2\CLab_Figure 9A - TCE DCE VC On Property Monitoring Wells_SA2_2021_htsRev6.mxd Neelam 12/29/2022 2:21:29 PM



CSW-3A	TCE	DCE	VC
Sep-19	15	1.0 U	1.0 U
Dec-19	0.82 J	1.0 U	1.0 U
Apr-20	0.76 J	1.0 U	1.0 U
Jun-20	4.4	1.0 U	1.0 U
Sep-20	22	3.0	1.0 U
Dec-20	1.7	1.0 U	1.0 U
Apr-21	1.2	1.0 U	1.0 U
Jun-21	2.8	1.0 U	1.0 U
Sep-21	3.1	1.0 U	1.0 U

CSW-3	TCE	DCE	VC
Sep-19	39	2.3	1.0 U
Dec-19	0.76 J	1.0 U	1.0 U
Apr-20	0.62 J	1.0 U	1.0 U
Jun-20	9.0	0.95 J	1.0 U
Sep-20	90	5.9	1.0 U
Dec-20	1.5	1.0 U	1.0 U
Apr-21	1.2	1.0 U	1.0 U
Jun-21	3.1	1.0 U	1.0 U
Sep-21	1.0 U	1.0 U	1.0 U

CSW-2	TCE	DCE	VC
Sep-19	NS	NS	NS
Dec-19	1.0 U	1.0 U	1.0 U
Apr-20	1.0 U	1.0 U	1.0 U
Dec-20	1.0 U	1.0 U	1.0 U
Apr-21	1.0 U	1.0 U	1.0 U
Jun-21	1.0 U	1.0 U	1.0 U
Sep-21	1.0 U	1.0 U	1.0 U

PP-4B	TCE	DCE	VC
Sep-19	260	250	5.0 U
Apr-20	260	220	5.0 U
Oct-20	280	230	5.0 U
Apr-21	190	150	5.0 U

PP-4A	TCE	DCE	VC
Sep-19	18	2.5	1.0 U
Apr-20	72	5.6	1.0 U
Oct-20	55	5.9	1.0 U
Apr-21	170	14	1.0 U

PP-3	TCE	DCE	VC
Sep-19	2,600	360	73
Apr-20	120	11	2.0 U
Sep-20	6,300	1,500	220
Apr-21	370	58	4.7

CLW-19B	TCE	DCE	VC
Sep-19	2.5	1.0 U	1.0 U
Mar-20	1.2	1.0 U	1.0 U
Sep-20	3.4	1.0 U	1.0 U
Apr-21	1.5	1.0 U	1.0 U

CLW-17	TCE	DCE	VC
Sep-19	3.7	1.0 U	1.0 U
Apr-20	5.2	1.3	1.0 U
Sep-20	17	4.1	1.0 U
Apr-21	2.7	1.0 U	1.0 U

CSW-4	TCE	DCE	VC
Sep-19	NS	NS	NS
Dec-19	0.60 J	1.0 U	1.0 U
Apr-20	0.52 J	1.0 U	1.0 U
Dec-20	1.0	1.0 U	1.0 U
Apr-21	0.73 J	1.0 U	1.0 U
Jun-21	0.76 J	1.0 U	1.0 U
Sep-21	2.8	1.0 U	1.0 U

CLW-19	TCE	DCE	VC
Sep-19	3.0	0.85 J	1.0 U
Mar-20	0.52 J	1.0 U	1.0 U
Sep-20	4.5	1.1	1.0 U
Apr-21	1.0	1.0 U	1.0 U

CLW-17B	TCE	DCE	VC
Sep-19	79	21	1.0 U
Apr-20	81	20	1.0 U
Sep-20	99	25	1.0 U
Apr-21	70	17	1.0 U

CLW-22B	TCE	DCE	VC
Sep-19	19	4.1	1.0 U
Mar-20	7.8	1.5	1.0 U
Sep-20	19	3.6	1.0 U
Apr-21	6.7	1.1	1.0 U

CSW-5	TCE	DCE	VC
Sep-19	1.9	0.89 J	1.0 U
Dec-19	1.0 U	1.0 U	1.0 U
Apr-20	1.0 U	1.0 U	1.0 U
Jun-20	1.6	1.0 U	1.0 U
Dec-20	1.0 U	1.0 U	1.0 U
Apr-21	1.0 U	1.0 U	1.0 U
Jun-21	0.64 J	1.0 U	1.0 U
Sep-21	0.76 J	1.0 U	1.0 U

CLW-22	TCE	DCE	VC
Sep-19	20	4.4	1.0 U
Mar-20	9.0	1.8	1.0 U
Sep-20	20	4.0	1.0 U
Apr-21	6.3	1.1	1.0 U

CLW-20	TCE	DCE	VC
Sep-19	0.94 J	1.0 U	1.0 U
Apr-20	1.5	1.0 U	1.0 U
Sep-20	1.4	1.0 U	1.0 U
Apr-21	2.8	1.0 U	1.0 U

CLW-20B	TCE	DCE	VC
Sep-19	1.0 U	1.0 U	1.0 U
Apr-20	0.49 J	1.0 U	1.0 U
Sep-20	1.0 U	1.0 U	1.0 U
Apr-21	1.0 U	1.0 U	1.0 U

MCP NUMERICAL STANDARDS		
	GW-2	GW-3
TCE	30	5,000
DCE	100	50,000
VC	2	50,000

Notes:
1. On-property wells shown on Figure 6A.
2. Concentrations are reported in ug/L.
3. Results compared to Massachusetts Contingency Plan (MCP) Numerical Standards for screening purposes only.
4. NS = Not Sampled
5. MCP GW-2 applies if monitoring wells are within 30 ft of an occupied structure.

NA - NO AWQC STANDARD

MCP NUMERICAL STANDARDS		
	GW-2	GW-3
TCE	5	5,000
DCE	20	50,000
VC	2	50,000

SURFACE WATER (SW) - AMBIENT WATER QUALITY CRITERIA (AWQC)		
	ACUTE	CHRONIC
TCE	NA	NA
DCE	NA	NA
VC	NA	NA

Legend
- Sampled Monitoring Well
- Surface Water Sampling Location
- Existing Piezometer
- Stream
- Fence
- Building Structures
- Parcel_Boundary

N
0 75 150
Feet

TCE = TRICHLOROETHENE
DCE = CIS-1,2-DICHLOROETHENE
VC = VINYL CHLORIDE
--- = NOT ANALYZED
J = ESTIMATED VALUE
U = COMPOUND NOT DETECTED ABOVE INDICATED REPORTING LIMIT.

Analyte / Well ID / Sample Date / Concentration

CLW-17	TCE	DCE	VC
Apr-16	7.3	1.4	1.0 U

Prepared/Date: MR 12/29/22
Checked/Date: MDM 12/29/22

Conductorlab Site
Honeywell International Inc.
Groton, MA

wsp

Off-Property Monitoring Wells and Surface Water
TCE/DCE/VC Concentrations (2019-2021)
RTN 2-0000053
Figure 9B

Document Path: C:\Project_Deliverables\GIS_Sites\HW_Conductor_Lab\Mapfiles\2021\SA2\CLab_Figure 9B - TCE DCE VC Off Site Monitoring Wells and Surface Water_SA2_2021_htsRev6.mxd Neelam 12/29/2022 4:17:33 PM

DMW-A	Cr	Cr^{+6}
Sep-19	1.4 J	10 R
Mar-20	5.0 U	10 U
Sep-20	1.0 J	10 U
Apr-21	5.0 U	10 U

DMW-B	Cr	Cr^{+6}
Sep-19	5.0 U	10 R
Mar-20	5.0 U	5.4 J
Sep-20	5.0 U	10 U
Apr-21	5.0 U	10 U

RW-3	Cr	Cr^{+6}
Sep-19	NS	NS
Apr-20	NS	NS
Jun-20	310	280
Jul-20	310	290
Jul-20	300	280
Jul-20	290	270
Sep-20	230	230
Dec-20	150	130 J
Jan-21	190	180
Apr-21	380	370
Jun-21	360	350
Sep-21	330	310 J

CPZ-2C	Cr	Cr^{+6}
Sep-19	NS	NS
Apr-20	NS	NS
Jun-20	32	28
Jul-20	19	10 U
Jul-20	16	10 U
Jul-20	22	10 U
Sep-20	36	8.9 J
Dec-20	2.4 J	10 UJ
Apr-21	2.6 J	10 U
Jun-21	4.1 J	10 U
Sep-21	4.2 J	10 U

CLW-8	Cr	Cr^{+6}
Sep-19	1,000	890 J
Mar-20	330	250
Jun-20	690	460
Jul-20	390	380 J-
Jul-20	520	450
Jul-20	130	98
Oct-20	19	25
Dec-20	130	110 J
Jan-21	140	130
Apr-21	160	120
Jun-21	210	200
Sep-21	190	290

CLW-7A	Cr	Cr^{+6}
Sep-19	NS	NS
Apr-20	NS	NS
Jun-20	5.0 U	10 U
Jul-20	1.1 J	10 U
Jul-20	3.9 J	10 U
Jul-20	2.0 J	10 U
Sep-20	1.1 J	10 U
Dec-20	1.5 J	10 UJ
Apr-21	1.0 J	10 U
Jun-21	5.0 U	10 U
Sep-21	5.0 U	10 UJ

OSW-3A	Cr	Cr^{+6}
Sep-19	6.7	10 U
Mar-20	110	98
Sep-20	NS	NS
Apr-21	96	81

OSW-3B	Cr	Cr^{+6}
Sep-19	3.4 J	10 U
Apr-20	5.0 U	10 U
Oct-20	1.5 J	30
Apr-21	5.0 U	10 U

CLW-16B	Cr	Cr^{+6}
Sep-19	6.1	10 U
Apr-20	8.5	10 U
Oct-20	7.8	35
Apr-21	5.7	10 U

PP-2	Cr	Cr^{+6}
Sep-19	8.4	10 U
Apr-20	130	10 U
Oct-20	3.9 J	24
Apr-21	130	120

OSW-4I	Cr	Cr^{+6}
Sep-19	67	10 U
Mar-20	52	66
Oct-20	51	57
Apr-21	22	11

OSW-2B	Cr	Cr^{+6}
Sep-19	1,700	970 J
Mar-20	490	440
Oct-20	2,700	140
Apr-21	530	400

OSW-7A	Cr	Cr^{+6}
Sep-19	530 J-	420 J
Mar-20	190	180
Sep-20	310	370
Apr-21	230	210

CLW-5B	Cr	Cr^{+6}
Sep-19	16	10 UJ
Mar-20	79	77
Sep-20	9.0	10 U
Apr-21	97	78

CLW-5A	Cr	Cr^{+6}
Sep-19	NS	NS
Mar-20	80	79
Sep-20	NS	NS
Apr-21	99	78

OSW-1A	Cr	Cr^{+6}
Sep-19	170	170 J
Mar-20	100	93
Oct-20	**450**	40
Apr-21	120	120

OSW-1B	Cr	Cr^{+6}
Sep-19	5.0 U	6.6 J-
Mar-20	5.0 U	10 U
Sep-20	1.9 J	10 U
Apr-21	2.2 J	10 U

CIW-1B	Cr	Cr^{+6}
Sep-19	280	10 UJ
Apr-20	8.3	10 U
Oct-20	51	23
Apr-21	24	10 U

Main Street (Route 119)

DMW-A
DMW-B
RW-3
CPZ-2C
CLW-8
CLW-7A
CLW-7B
PP-2
OSW-4I
OSW-7A
CIW-1B
CLW-5B
CLW-5A
OSW-3B
OSW-3A
OSW-1A
OSW-1B
CLW-16B
OSW-2B
Property Boundary

Notes:
1. Concentrations are reported in ug/L.
2. Results compared to Massachusetts Contingency Plan (MCP) Numerical Standards for screening purposes only
3. NS = Not Sampled

MCP NUMERICAL STANDARDS		
	GW-3	UCL
Cr VI	300	3,000
Cr (Total)	300	3,000

Legend
- Monitoring Well Sample
- Recovery Well
- Tree Line
- Fence
- Stream
- Property Boundary
- Regulated Wetland Resource Area
- Former Treatment Building
- Property_Boundary

N
0 20 40 Feet

--- = NOT ANALYZED
J = ESTIMATED VALUE
J- = ESTIMATED VALUE WITH LOW BIAS
R = DATA IS UNUSABLE. ANALYTE MAY OR MAY NOT BE PRESENT.
U = COMPOUND NOT DETECTED ABOVE INDICATED REPORTING LIMIT.
B = ESTIMATED VALUE. RESULT MEASURED BETWEEN REPORTING AND METHOD DETECTION LIMIT.
* = RESULT IS TOTAL CHROMIUM

Analyte
Well ID
Sample Date
Concentration

CIW-1B	Cr	Cr^{+6}
Apr-16	**510**	5.0 U

Prepared/Date: MR 12/29/22
Checked/Date: MDM 12/29/22

Conductorlab Site
Honeywell International Inc.
Groton, MA

wsp

On-Property Monitoring Well Cr+6 and Cr Groundwater Concentrations (2019-2021)
RTN 2-0000053
Figure 10A

Document Path: C:\Project_Deliverables\GIS_Sites\HW_Conductor_Lab\Mapfiles\2021\SA2\CLab_Figure 10A - Cr+6 and Cr On-Property Monitoring Wells_SA2_2021_htsRev7.mxd Neelam 12/29/2022 8:55:25 PM

CSW-3A	Cr	Cr+6	Cu
Sep-19	**440**	**180 J**	**12**
Dec-19	14	8.2 J	1.9 J
Apr-20	12	**24**	1.6 J
May-20	16	10 U	NS
Jun-20	**140**	**120**	**10**
Sep-20	**930**	**880**	**11**
Nov-20	**170**	**140 J**	NS
Dec-20	42	48	2.4 J
Apr-21	28	7.3 J	3.2 J
Jun-21	66	**55**	6.5 J
Sep-21	29	**32**	2.9 J

CSW-1	Cr	Cr+6	Cu
Sep-19	NS	NS	NS
Dec-19	NS	NS	NS
Apr-20	NS	NS	NS
Nov-20	5.0 U	5.9 J	NS
Dec-20	1.6 J	5.8 J	NS
Apr-21	5.0 U	10 U	NS
Jun-21	5.0 U	10 U	NS
Sep-21	5.0 U	10 U	NS

CSW-3 A	Cr	Cr^{+6}	Cu
Sep-19	**300**	**280 J**	7.0 J
Dec-19	16	**22**	2.5 J
Apr-20	15	**33**	10 U
Jun-20	**130**	**120**	5.8 J
Sep-20	**840**	**350**	**10**
Dec-20	26	**42**	3.1 J
Apr-21	27	9.7 J	10 U
Jun-21	71	**63**	6.3 J
Sep-21	31	**19**	4.1 J

CSW-2	Cr	Cr+6	Cu
Sep-19	NS	NS	NS
Dec-19	5.0 U	10 U	10 U
Apr-20	5.0 U	**19**	10 U
Nov-20	5.0 U	10 UJ	NS
Dec-20	5.0 U	10 U	10 U
Apr-21	5.0 U	10 U	10 U
Jun-21	2.9 J	10 U	10 U
Sep-21	5.0 U	10 U	10 U

PP-4B	Cr	Cr^{+6}
Sep-19	12	16
Apr-20	9.8	16
Oct-20	13	10 U
Apr-21	12	10 U

PP-4A	Cr	Cr^{+6}
Sep-19	9.1	10 UJ
Apr-20	16	21
Oct-20	3.6 J	34
Apr-21	35	20

PP-3	Cr	Cr^{+6}
Sep-19	**870**	**980 J**
Apr-20	**400**	**510**
Sep-20	**1,100**	160
Apr-21	**470**	**420**

CSW-4	Cr	Cr^{+6}	Cu
Sep-19	NS	NS	NS
Dec-19	16	9.4 J	2.7 J
Apr-20	15	**39**	2.1 J
Dec-20	27	**52**	3.4 J
Apr-21	26	**12**	1.8 J
Jun-21	59	**56**	4.3 J
Sep-21	31	**34**	3.7 J

CLW-17B	Cr	Cr^{+6}
Sep-19	6.9	6.6 J
Apr-20	6.5	10 U
Sep-20	5.5	10 U
Apr-21	6.4	10 U

CLW-17	Cr	Cr^{+6}
Sep-19	41	43 J
Apr-20	21	19
Sep-20	44	33
Apr-21	23	16

CLW-19B	Cr	Cr^{+6}
Sep-19	15	23 J
Mar-20	7.8	7.8 J
Sep-20	15	10 U
Apr-21	7.9	53

CLW-19	Cr	Cr^{+6}
Sep-19	22	21 J
Mar-20	12	14
Sep-20	23	36
Apr-21	17	10 U

CSW-5	Cr	Cr^{+6}	Cu
Sep-19	7.3	10 UJ	3.7 J
Dec-19	14	10 U	5.9 J
Apr-20	14	**24**	6.8 J
Jun-20	10	10 U	4.1 J
Dec-20	20	**30**	**11**
Apr-21	17	10 U	8.5 J
Jun-21	6.6	10 U	**14**
Sep-21	9.2	9.4 J	**15**

CLW-22B	Cr	Cr^{+6}
Sep-19	16	40
Mar-20	8.7	21
Sep-20	16	10 U
Apr-21	15	10 U

CLW-22	Cr	Cr^{+6}
Sep-19	24	25
Mar-20	9.7	13
Sep-20	16	10 U
Apr-21	9.2	10 U

CLW-20B	Cr	Cr^{+6}
Sep-19	5.0 U	10 U
Apr-20	5.0 U	10 U
Sep-20	5.0 U	10 U
Apr-21	5.0 U	10 U

CLW-20	Cr	Cr^{+6}
Sep-19	1.2 J	6.6 J
Apr-20	1.2 J	6.8 J
Sep-20	2.1 J	7.6 J
Apr-21	5.0 U	10 U

Arlington Street
Mill Street
CSW-1
CSW-18
CSW-19
CSW-2
CSW-3
CSW-3A
Concrete Pad
Former Treatment Building
PP-4B
PP-4A
PP-3
CSW-4
CLW-17
CLW-17B
CLW-19B
CLW-19
CSW-5
CLW-22B
CLW-22
CLW-20B
CLW-20
Main Street (Route 119)
Commonwealth Of Massachusetts, Rail Trail

Notes:
1. On-property wells shown on Figure 7A.
2. Concentrations are reported in ug/L.
3. Results compared to Massachusetts Contingency Plan (MCP)Numerical Standards for screening purposes only.
4. Results are posted for total Cr+6 and dissolved Cr for off-site monitoring wells and total Cr+6 and dissolved Cr and Cu for surface water locations.

3. NS = Not Sampled

MCP NUMERICAL STANDARDS		
	GW-3	UCL
Cr VI	300	3,000
Cr (Total)	300	3,000

SURFACE WATER (SW) - AMBIENT WATER QUALITY CRITERIA (AWQC)		
	ACUTE	CHRONIC
Cr *	570	74
Cr^{+6}	16	11
Cu	13	9
* - INDICATES AWQC FOR Cr^{+3}		

Legend
- Sampled Monitoring Well
- Surface Water Sampling Location
- Existing Piezometer
- Stream
- Fence
- Building Structures
- Parcel_Boundary
- Property_Boundary

N
0 75 150 Feet

--- = NOT ANALYZED
J = ESTIMATED VALUE
R = DATA IS UNUSABLE. ANALYTE MAY OR MAY NOT BE PRESENT.
U = COMPOUND NOT DETECTED ABOVE INDICATED REPORTING LIMIT.
B = ESTIMATED VALUE. RESULT MEASURED BETWEEN REPORTING AND METHOD DETECTION LIMIT.

CSW-2	Cr	Cr^{+6}	Cu
Apr-16	5.0 U	5.0 U	1.7 J

Analyte
Well ID
Sample Date
Concentration

Prepared/Date: MR 12/29/22
Checked/Date: MDM 12/29/22

Conductorlab Site
Honeywell International Inc.
Groton, MA

wsp

Off-Property Monitoring Well and Surface Water
Cr, Cr+6, and Cu Concentrations (2019-2021)
RTN 2-0000053
Figure 10B

Document Path: C:\Project_Deliverables\GIS_Sites\HW_Conductor_Lab\Mapfiles\2021\SA2\CLab_Figure 10B - Cr Cr+6 and Cu Off Site Monitoring Wells and Surface Water_SA2_2021_htsRev6.mxd Neelam 12/29/2022 4:50:35 PM

BIW-1	Cr Total	Cr^{+6}	TCE	DCE	VC
Jun-07	110	ND	55,000	27,000	2,200
Sep-08	440	470	81,000	12,000	1,000 J
Mar-09	370 B	360	77,000	17,000	140
Aug-09	640	700	51,000	11,000	180
Oct-09	2,900	1,300	17,000	4,400	500 U
Apr-10	9,800	12,000	15,000	3,900	12 U
Aug-11	240	5.0 U	8,400	3,600	510
Jan-12	NA	NA	7,400	3,600	580
Feb-12	53	5.0 U	4,600	1,900	540
Mar-12	60	5.0 U	4,400	1,700	630
Aug-12	33	5.0 U	4,600	1,900	630
Apr-13	31	5.0 U	1,100	560	77
Jun-13	86	5.0 U	1,200 B	640	76
Oct-13	28	11	3,300	1,500	610
Dec-13	26	5.0 U	8,400	3,900	1,800
Apr-14	11	5.0 U	3,200	1,500	490
Jun-14	23	5.0 U	2,600	1,100	390

BIW-2	Cr Total	Cr^{+6}	TCE	DCE	VC
Jun-07	170	6.9	56,000	29,000	1,000
Mar-09	3,800 B	3,700	1,500	150	3.3
Aug-09	3,800	3,700	730	48	1.0 U
Oct-09	6,600	3,700	1,000	60 J	0.5
Apr-10	42,000	49,000	18	4.2	1 U
Aug-11	1,300	50 U	90	22	1.9 J
Jan-12	NA	NA	24	9.7	2.5 U
Feb-12	530	5.0 U	18	7.4	2.5 U
Feb-12	340	1,000 U	21	7.1	2.5 U
Aug-12	150	5.0 U	23	4.8 J	2.5 U
Apr-13	80	5.0 U	180	27	2.0 U
Jun-13	110	5.0 U	370	38	8.0 U
Oct-13	71	6.7	350	28	8.0 U
Dec-13	65	5.0 U	760	120	23
Apr-14	25	5.0 U	1,200	190	7.7 J
Jun-14	52	5.0 U	1,200	160	18 U

BIW-24	Cr Total	Cr^{+6}	TCE	DCE	VC
Jul-07	NA	NA	21,000	1,800	500 U
Oct-08	16 B	5.0 U	120,000	7,000	230 J
Mar-09	320	210	72,000	12,000	70
Aug-09	55	47	1,500	150	33
Oct-09	1,400	1,200	28,000	3,600	100
Apr-10	18000 B	18,000	810	49	1 U
Aug-11	5,100	50 U	1,800	310	5.0 U
Jan-12	NA	NA	2,000	550	2.5 U
Feb-12	330	5.0 U	2,400	530	2.5 U
Mar-12	200	5.0 U	1,200	510	5.0 U
Aug-12	180	5.0 U	6,100	900	240
Apr-13	8,300	250 U	8.4	5.0 U	5.0 U
Jun-13	1,600	500 U	22	2.9	2.0 U
Oct-13	1,500	1,000 U	40	5.3	1.0 U
Dec-13	58	5.0 U	5,300	470	140
Apr-14	21	5.0 U	11,000	1,000	220
Jun-14	42	5.0 U	6,700	630	150

BIW-4	Cr Total	Cr^{+6}	TCE	DCE	VC
Jul-07	NA	NA	18,000	680 J	500 U
Mar-09	12,000 B	13,000	230,000	750	25 U
Aug-09	13,000	14,000	15,000	610	25 U
Oct-09	12,000	15,000	19	1.0 U	0.5 U
Apr-10	82,000	89,000	2.2 J	1.0 U	0.5 U
Aug-11	13,000	50 U	770	47	5.0 U
Jan-12	NA	NA	200	54	0.5 U
Feb-12	2,300	5.0 U	870	100	0.5 U
Mar-12	1,500	5.0 U	1,100	130	1.0 U
Aug-12	4,300	5.0 U	200	41	0.5 U
Apr-13	290	250 U	8,600	580	200 U
Jun-13	280	5.0 U	6,100	420	100 U
Oct-13	320	5.0 U	5,800	490	100 U
Dec-13	170	5.0 U	21,000	1,300	140
Apr-14	86	5.0 U	17,000	1,000	360 U
Jun-14	120	5.0 U	17,000	1,100	360 U

BIW-5	Cr Total	Cr^{+6}	TCE	DCE	VC
Jul-07	NA	NA	82,000	2,000	1,000 U
Mar-09	24 B	5.0 U	57,000	1,400	24 J
Aug-09	58	5.0 U	45,000	1,600	25 U
Oct-09	51	59	72,000	2,900	26
Apr-10	1,400	1,700	40,000	2,100	25 U
Aug-11	75	5.0 U	35,000	2,100	400
Jan-12	NA	NA	1,100	180	4.3
Feb-12	20	500 U	1,600 J	150	4.4
Mar-12	430	5.0 U	5,500	510	10 U
Aug-12	1,200	630	18,000	1,900	420
Apr-13	3,100	250 U	1,200	98	20 U
Jun-13	2,600	500 U	680	50	10 U
Oct-13	1,600	250 U	670	58	10 U
Dec-13	480	510	5,100	360	68
Apr-14	470	240	12,000	1,100	250
Jun-14	440	210	17,000	1,400	320

BIW-6	Cr Total	Cr^{+6}	TCE	DCE	VC
Jul-07	NA	NA	100,000	550 J	1,000 U
Sep-08	1.9 J	5.0 U	94,000	1,100	120 U
Mar-09	2.9 J	5.0 U	120,000	940	50 U
Jun-09	4.8 J	5.0 U	130,000	1,600	98
Oct-09	2.6 J	5.0 U	130,000	5,000 U	2,500 U
Apr-10	3.6 J	5.0 U	100,000	1,900	140
Dec-10	NA	NA	72,000	1,700	99
Feb-11	NA	NA	2.3 J	4.0 U	2.0 U
Aug-11	6.9 J	5.0 U	130,000	1,500	180
Jan-12	NA	NA	12,000	270	27
Feb-12	200	30	41,000	980	120
Mar-12	200	5.0 U	51,000	1,300	190
Aug-12	24 J	250 U	14,000	560	25 U
Apr-13	240	250 U	5,600	270	80 U
Jun-13	64	250 U	43,000	2,300	440
Oct-13	34	430	58,000	2,300	800 U
Dec-13	15	5.0 U	80,000	2,900	800 U
Apr-14	9.4	5.0 U	53,000	2,600	720 U
Jun-14	9.6	5.0 U	53,000	2,400	720 U

BMW-5	Cr Total	Cr^{+6}	TCE	DCE	VC
Oct-07	NA	NA	27,000	1,100	130
Nov-07	37	5.0 U	140,000	4,100	480
Sep-08	3.3 J	5.0 U	64,000	2,100	140
Mar-09	20 B	5.0 U	43,000	1,900	25 U
Jun-09	13	5.0 U	26,000	1,600	110
Oct-09	16	5.0 U	47,000	2,200	160
Apr-10	11 B	5.0 U	46,000	1,700	25 U
Aug-11	95	130	25,000	2,000	470
Jan-12	NA	NA	26,000	2,200	410
Feb-12	840	6.6	28,000	1,900	330
Mar-12	15	5.0 U	25,000	2,000	300
Aug-12	120	130	15,000	1,400	320
Apr-13	36	250 U	5,800	520	81
Jun-13	98	56	23,000 B	1,500	320
Oct-13	36	36	17,000	1,500	400 U
Dec-13	16	5.0 U	20,000	1,900	400 U
Apr-14	15	5.0 U	16,000	1,500	220
Jun-14	4.3 J	5.0 U	14,000	1,300	180 U

BIW-14	Cr Total	Cr^{+6}	TCE	DCE	VC
Jun-07	47	5.0 U	59,000	1,000 U	1,000 U
Sep-08	120 B	5.0 U	53,000	830	100 U
Mar-09	17	5.6	23,000 J	370	25 U
Jun-09	4.6 J	5.0 U	24,000	670	43
Oct-09	1.5 J	5.0 U	65,000	1,300	76
Apr-10	2.2 J	5.0 U	44,000	1,200	180
Dec-10	NA	NA	42,000	980	25 U
Feb-11	NA	NA	5.9 J	10 U	5.0 U
Aug-11	180	190	49,000	1,500	230
Jan-12	NA	NA	17,000	1,100	300
Feb-12	1,300	250 U	16,000	650	75
Mar-12	270	5.0 U	21,000	650	25 U
Aug-12	1,400	2500 U	14,000	760	61
Apr-13	620	250 U	4,800	120	40 U
Jun-13	820	500 U	7,300	350	80 U
Oct-13	69	5.0 U	22,000	530	80 U
Dec-13	12	5.0 U	15,000 J	360	200 U
Apr-14	14	5.0 U	10,000	310	180 U
Jun-14	6.1	5.0 U	11,000	320	180 U

BIW-15	Cr Total	Cr^{+6}	TCE	DCE	VC
Jun-07	29	8.2	67,000	1,000 U	1,000 U
Mar-09	1.7 J	5.0 U	82,000	670	50 U
Jun-09	5.6	5.0 U	44,000	410	50 U
Oct-09	4.4 J	5.0 U	110,000	1,400	42
Apr-10	5 U	5.0 U	110,000	1,300	100 U
Dec-10	NA	NA	92,000	1,400	42 J
Feb-11	NA	NA	5.4 J	10 U	5.0 U
Aug-11	140	68	74,000	590	100 U
Jan-12	NA	NA	45,000	650	28 J
Feb-12	330 B	500 U	71,000	960	45 J
Mar-12	240	250 U	79,000	980	46 J
Aug-12	430	5,000 U	69,000	480	50 U
Apr-13	590	250 U	7,800	260	200 U
Jun-13	440	250 U	5,700	86 J	100 U
Oct-13	320	840	680	17 J	20 U
Dec-13	130	50 U	27,000	420	20 U
Apr-14	180	130 U	14,000	200 J	230 U
Jun-14	11	5.0 U	21,000	420	230 U

OSW-1B	Cr Total	Cr^{+6}	TCE	DCE	VC
Sep-08	1.3 U	25 J	26,000	410	56
Mar-09	13	5.8	62,000	670	50 U
Oct-09	20	5 U	33,000	1,000	85
Apr-10	4.5 J	5 U	98,000	1,300	240
Sep-10	6.1 J	5 U	8,900	800	230
Dec-10	NA	NA	5,100	690	250
Feb-11	NA	NA	230	5.8	2 U
Aug-11	4.2 J	5 U	16,000 E	320	45
Jan-12	NA	NA	20,000	390	60
Feb-12	47	250 U	18,000	350	50
Mar-12	34	5.0 U	24,000	410	53
Aug-12	2.7 J	5.0 U	7,400	230	24
Mar-13	63	500 U	6,300	160	1.5
Jun-13	17	5.0 U	7,600 B	230	36
Sep-13	8.4	50 U	6,300	210	100 U
Dec-13	3.6 J	5.0 U	4,200	160	100 U
Apr-14	2.9 J	5.0 U	5,300	240	90 U
Jun-14	3.1 J	50 U	6,900	280	90 U

BIW-7	Cr Total	Cr^{+6}	TCE	DCE	VC
Jul-07	NA	NA	170,000	5,000 U	2,500 U
Nov-07	1.5 U	5.0 U	130,000	830	130 U
Sep-08	0.82 U	5.0 U	150,000	1,100	250 U
Mar-09	2.1 U	5.0 U	140,000	970	50 U
Jun-09	2.3 J	5.0 U	120,000	730	50 U
Oct-09	4.2 J	5.0 U	120,000	5,000 U	120
Apr-10	16	5.0 U	150,000	1,200	90
Dec-10	NA	NA	57,000	2,100	210
Feb-11	NA	NA	140	2.8 J	5.0 U
Aug-11	0.86 J	5.0 U	41,000	1,200	87
Jan-12	NA	NA	4,400	150	14
Feb-12	76 B	2,500 U	46,000	1,700	200
Mar-12	56	5.0 U	51,000	2,100	240
Aug-12	0.95 J	5.0 U	30,000	1,100	99
Apr-13	160	250 U	1,100	48	20 U
Jun-13	94	250 U	12,000 B	400	29
Oct-13	71	500 U	20,000	750	200 U
Dec-13	7.0	5.0 U	24,000	930	180 U
Apr-14	2.7 J	5.0 U	20,000	1,000	360 U
Jun-14	26	5.0 U	25,000	1,100	360 U

BIW-16	Cr Total	Cr^{+6}	TCE	DCE	VC
Jun-07	140	130	55,000	1,000 U	1,000 U
Mar-09	15	10	190,000	200 U	100 U
Jun-09	26	24	180,000	200 U	100 U
Oct-09	960	610	88,000	15	0.5 U
Apr-10	920	1,100	120,000	300 U	100 U
Dec-10	NA	NA	56,000	77 J	50 U
Feb-11	NA	NA	4,700	10 U	5.0 U
Aug-11	480	600	37,000	100 U	50 U
Jan-12	NA	NA	64,000	84 J	130 U
Feb-12	43	5.0 U	74,000	46 J	100 U
Mar-12	50	5.0 U	91,000	77 J	100 U
Aug-12	520	590	9,300	6.3 J	13 U
Apr-13	40	24	34,000	400 U	400 U
Jun-13	160	5.0 U	51,000	400 U	400 U
Oct-13	450	5.0 U	9,700	100 U	110 U
Dec-13	570	320	22,000	130 U	130 U
Apr-14	250	160	36,000	320 U	360 U
Jun-14	180	190	20,000	320 U	360 U

BIW-33	Cr Total	Cr^{+6}	TCE	DCE	VC
Mar-09	3.5 J	5.0 U	62,000	100 U	50 U
Jun-09	20	27	57,000	100 U	50 U
Oct-09	180	21	41,000	50 U	25 U
Apr-10	32 B	18	53,000	50 U	25 U
Dec-10	NA	NA	45,000	50 U	25 U
Feb-11	NA	NA	33 J	50 U	25 U
Aug-11	23	25	14,000	50 U	25 U
Jan-12	NA	NA	390	1.6 J	2.5 U
Feb-12	340	250 U	6,400	3.9 J	2.5 U
Mar-12	140	130 U	21,000	50 U	25 U
Aug-12	420	500 U	2,000	2.9 J	5 U
Apr-13	140	250 U	1.0 U	1.0 U	1.0 U
Jun-13	280	500 U	1.8	1.0 U	1.0 U
Oct-13	160	250 U	22	1.0 U	1.0 U
Dec-13	22	50 U	6,400	1.0 U	1.0 U
Apr-14	61	130 U	5,400	81 U	90 U
Jun-14	16	5.0 U	9,800	81 U	90 U

BIW-32	Cr Total	Cr^{+6}	TCE	DCE	VC
Nov-07	12	5.0 U	340,000	250 U	130 U
Oct-08	53 B	5.0 U	230,000	500 U	250 U
Mar-09	3.6 J	5.0 U	210,000	100 U	50 U
Jun-09	8.1	11	150,000	100 U	50 U
Oct-09	13	8.9	130,000	200 U	100 U
Apr-10	1.7 J	5.0 U	190,000	200 U	100 U
Dec-10	NA	NA	92,000	28 J	50 U
Feb-11	NA	NA	2,000	100 U	50 U
Aug-11	62	79	77,000	100 U	100 U
Jan-12	NA	NA	610	2.0 U	1.0 U
Feb-12	39 B	5.0 U	4,700	20 U	10 U
Mar-12	48	5.0 U	4,000	10 U	5 U
Aug-12	31	130 U	8,300	20 U	10 U
Apr-13	540	250 U	640	10 U	10 U
Jun-13	520	1,300 U	30	2.0 U	2.0 U
Oct-13	490	5.0 U	44	4.0 U	4.0 U
Dec-13	450	130 U	29	4.0 U	4.0 U
Apr-14	43	52	320	3.2 U	3.6 U
Jun-14	170	500 U	120	3.2 U	3.6 U

BIW-31	Cr Total	Cr^{+6}	TCE	DCE	VC
Mar-09	3.9 J	5.0 U	480,000	1,100	100 U
Jun-09	2.6 J	5.0 U	490,000	1,200	50 U
Oct-09	2.5 J	5.0 U	440,000	980	250 U
Apr-10	9.8	5.0 U	450,000	1,500	250 U
Dec-10	NA	NA	330,000	1,700	120 U
Feb-11	NA	NA	920	100 U	50 U
Aug-11	1,100	2,500 U	36,000	72 J	50 U
Jan-12	NA	NA	1,200	20 U	10 U
Feb-12	140 B	250 U	110,000	1,300	50 U
Mar-12	250	250 U	130,000	1,100	100 U
Aug-12	410	5,000 U	3.9 J	10 U	5 U
Apr-13	410	250 U	11	10 U	10 U
Jun-13	490	250 U	66	10 U	10 U
Oct-13	500	250 U	330	10 U	10 U
Dec-13	360	250 U	25,000	210	10 U
Apr-14	180	130 U	36,000	420	360 U
Jun-14	290	500 U	28,000	320 U	360 U

MCP NUMERICAL STANDARDS			
	GW-2	GW-3	UCL
TCE	30	5,000	50,000
DCE	100	50,000	100,000
VC	2	50,000	100,000
Cr (Total)	NL	300	3,000
Cr (Dissolved)	NL	300	3,000
Cr^{+6}	NL	300	3,000
NL - NOT LISTED IN 310 CMR 40.0000			

Notes:
1. Concentrations are reported in ug/L.
2. Results compared to Massachusetts Contingency Plan (MCP) Numerical Standards for perspective only.

TCE - Trichloroethene
DCE - cis-1,2,-Dichloroethene
VC - Vinyl Chloride
Cr - Chromium
Cr+6 - Hexavalent Chromium
U = Compound not detected above
J = Estimated Value
B = Estimated Value, Result Measured Between
ND - Not Detected
NA - Not Analyzed

Prepared/Date: JMM 1/5/2023
Checked/Date: MM 1/5/2023

Legend

- Monitoring Well
- Trench
- Stream
- Tree Line
- Fence
- Property Boundary
- Drain Line
- Active Gas Line
- Inactive Gas Line
- Overhead Wires
- Underground Electirc Line
- Utility Pole

N
0 10 20 Feet

Conductorlab Site
Honeywell International Inc.
Groton, MA

wsp

Bedrock Monitoring Well
Groundwater Concentrations
RTN 2-0000053
Figure 11

Document: P:\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLabs\MapDocuments\ChromiumEvaluation\BedrockWellChemboxes_11x17.mxd PDF: P:\old_Wakefield_Data\projects\3651130053 - Conductor_Lab\GIS\Bedrock Monitoring Well Groundwater Concentrations 01_29_14.pdf 1/29/2014 9:00 AM brian.roden

Honeywell

TABLES

DRAFT

Table 1
Groundwater Elevation Measurements
(April 5, 2021)
Conductorlab Site
Groton, Massachusetts

		Location					Measured Point Used				
Well ID	Type of Well[1]	On-Property	Off-Property	Ground Surface Elevation[2] (ft. msl)	Top of Protective Steel Casing Elevation[2] (ft. msl)	Top of Well Pipe Elevation[2] (ft. msl)	Top of Protective Steel Casing	Top of Well Pipe	Measured Depth to Groundwater	Groundwater Elevation (ft. msl)	Comments
CIW-1B	B	X		278.72	278.76	278.53		X	5.00	273.53	
CLW-1	S/O	X		287.38	288.97	288.56		X	8.21	280.35	
CLW-1B	B	X		287.57	288.94	288.66		X	8.37	280.29	
CLW-3B	B	X		299.25	299.32	298.99		X	14.56	284.43	
CLW-5A	S/O	X		274.84	275.28	274.92		X	0.80	274.12	
CLW-5B	B	X		274.81	275.22	274.34		X	4.21	270.13	
CLW-7	S/O	X		267.15	267.13	266.81		X	1.90	264.91	
CLW-7B	B	X		267.37	267.35	267.11		X	2.91	264.20	
CLW-8	S/O	X		268.75	270.31	270.25		X	6.72	263.53	
CLW-9	S/O	X		267.92	267.95	267.21		X	2.65	264.56	
CLW-11	S/O	X		273.44	273.47	273.16		X	3.62	269.54	
CLW-11B	B	X		273.75	273.77	273.42		X	3.05	270.37	
CLW-16	S/O	X		278.82	280.80	280.77		X	5.89	274.88	
CLW-16B	B	X		278.47	281.50	281.27		X	7.06	274.21	
CPZ-1	S/O	X		280.18	280.80	280.66		X	3.10	277.56	
CPZ-1B	B	X		280.30	280.37	279.38	X		3.23	277.14	
CPZ-1C	S/O	X		280.02	280.53	278.96	X		3.40	277.13	
CPZ-2C	S/O	X		267.88	267.95	267.46		X	4.44	263.02	
DMW-A	S/O	X		267.23	267.22	266.84		X	3.07	263.77	
DMW-B	B	X		266.80	266.87	266.66		X	3.55	263.11	
DN-2	B	X		278.83	281.52	281.31		X	6.18	275.13	
DN-3	B	X		278.87	281.79	281.55		X	7.50	274.05	
GZA-1	S/O	X		275.62	275.62	275.40		X	6.15	269.25	
GZA-6	S/O	X		274.49	----	274.35		X	3.68	270.67	
LF-1	S/O	X		284.71	287.13	287.04		X	7.65	279.39	
LF-2	S/O	X		287.64	290.37	290.23		X	9.26	280.97	
LF-3	S/O	X		292.75	295.25	293.64	X		12.73	282.52	
MW-2	S/O	X		280.59	281.00	280.90		X	1.35	279.55	
OSW-1A	S/O	X		278.16	278.87	278.10		X	2.61	275.49	
OSW-1B	B	X		278.14	278.70	277.61		X	2.47	275.14	
OSW-2	S/O	X		279.29	282.36	281.48		X	3.69	277.79	
OSW-2B	B	X		279.38	281.97	280.61		X	3.49	277.12	
OSW-2C	S/O	X		278.53	278.69	278.19		X	2.94	275.25	
OSW-3A	S/O	X		278.21	278.94	278.03	X		5.62	273.32	
OSW-4	S/O	X		273.65	273.76	272.90		X	1.98	270.92	
OSW-4B	B	X		273.77	273.87	273.09		X	2.96	270.13	
OSW-4I	I	X		273.67	273.81	273.17		X	2.78	270.39	
OSW-5	S/O	X		273.98	274.07	273.40		X	5.90	267.50	
OSW-5B	B	X		273.82	273.92	273.49		X	6.49	267.00	
OSW-6	S/O	X		279.48	282.05	281.91		X	6.16	275.75	
OSW-6B	B	X		279.31	281.99	281.80		X	4.42	277.38	
OSW-7A	S/O	X		275.51	275.80	275.41		X	5.84	269.57	
OSW-7B	B	X		275.42	275.75	275.38		X	5.36	270.02	
OSW-8A	S/O	X		278.49	278.51	277.90		X	5.00	272.90	
OSW-8B	B	X		278.40	278.65	278.47		X	5.36	273.11	

Table 1
Groundwater Elevation Measurements
(April 5, 2021)
Conductorlab Site
Groton, Massachusetts

		Location					Measured Point Used				
Well ID	Type of Well[1]	On-Property	Off-Property	Ground Surface Elevation[2] (ft. msl)	Top of Protective Steel Casing Elevation[2] (ft. msl)	Top of Well Pipe Elevation[2] (ft. msl)	Top of Protective Steel Casing	Top of Well Pipe	Measured Depth to Groundwater	Groundwater Elevation (ft. msl)	Comments
PP-1	S/O	X		271.86	274.62	274.08		X	7.33	266.75	
PP-2	S/O	X		272.37	275.15	274.96		X	5.35	269.61	
PP-3	S/O		X	279.01	281.22	281.04		X	12.80	268.24	
PP-4A	S/O		X	269.36	272.05	271.85		X	9.94	261.91	
PP-4B	B		X	269.04	271.50	271.35		X	9.97	261.38	
CLW-17	S/O		X	245.41	249.74	249.52		X	5.78	243.74	
CLW-17B	B		X	245.58	248.34	248.19		X	4.65	243.54	
CLW-18	S/O		X	240.27	243.22	243.02		X	3.15	239.87	
CLW-18A	S/O		X	239.99	242.92	242.69		X	0.60	242.09	Top of PVC
CLW-18B	B		X	240.10	242.78	242.39		X	0.43	241.96	Top of PVC
CLW-19	S/O		X	240.50	244.51	244.35		X	3.80	240.55	
CLW-19B	B		X	240.86	244.43	243.96		X	2.60	241.36	
CLW-20	S/O		X	239.94	242.91	242.37		X	4.42	237.95	
CLW-20B	B		X	239.54	242.67	242.47		X	4.09	238.38	
CLW-22	S/O		X	243.70	243.91	243.67		X	7.15	236.52	
CLW-22B	B		X	243.76	243.90	243.70		X	7.53	236.17	
CLW-29	S/O		X	217.76	218.02	217.86		X	NA	--	Dry
CLW-32	S/O		X	261.76	263.81	263.48		X	6.47	257.01	
CLW-32B	B		X	261.91	263.80	263.68		X	6.93	256.75	
CLW-36	S/O		X	240.68	243.49	243.16		X	3.32	239.84	
CLW-36B	B		X	240.56	243.57	243.29		X	2.82	240.47	

Notes:

Prepared by: HTS 08/23/2021

Checked by: JMM 09/14/2021

1) S/O = Shallow/Overburden well; B = Bedrock Well; I = Intermediate Well

2) Ground surface, top of protective steel casing and well pipe elevations based on the elevation survey conducted by Cabco Consulting Services of Clinton, MA in 2004
The vertical datum elevation was based on MA Geodetic Survey Station 81G, which is based on the National Geodetic Vertical Datum of 1929 (NGVD29)

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	01SOIL		02SOIL		03SOIL		04SOIL		05SOIL		06SOIL		A-B1		A-B2		A-S1		A-S2	
			Field Sample ID	C110617-01 SOIL-0-1		C110617-02 SOIL-0-1		C110617-03 SOIL-0-1		C110617-04 SOIL-0-1		C110617-05 SOIL-0-1		C110617-06 SOIL-0-1		C022707-AB1		C022707-AB2		C022707-AS1		C022707-AS2	
			Sample Start Depth	0		0		0		0		0		0		3		3		2		2	
			Sample End Depth	1		1		1		1		1		1		3		3		3		3	
			Sample Date	11/6/2017		11/6/2017		11/6/2017		11/6/2017		11/6/2017		11/6/2017		2/27/2007		2/27/2007		2/27/2007		2/27/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.009	J	0.0031	U	0.0018	U	0.0029	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0015	J	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.023	U	0.021	U	0.024	U	0.025	U	0.035	U	0.024	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.23	U	0.21	U	0.24	U	0.25	U	0.35	U	0.24	U	0.13	U	0.31	U	0.18	U	0.29	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.00062	J	0.0031	U	0.0018	U	0.0029	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.023	U	0.021	U	0.024	U	0.025	U	0.035	U	0.024	U	0.011	U	0.025	U	0.015	U	0.023	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.023	U	0.021	U	0.024	U	0.025	U	0.035	U	0.024	U	0.011	U	0.025	U	0.015	U	0.023	U
VOCs	Acetone	67-64-1	mg/kg	0.0064	J	0.21	U	0.0053	J	0.0075	J	0.35	U	0.0093	J	0.13	UJ	0.31	UJ	0.18	UJ	0.29	UJ
VOCs	Benzene	71-43-2	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Bromoform	75-25-2	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Bromomethane	74-83-9	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0027	U	0.0063	U	0.0036	U	0.0059	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0055	J	0.0031	U	0.0018	U	0.0029	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Chloroethane	75-00-3	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0027	U	0.0063	U	0.0036	U	0.0059	U
VOCs	Chloroform	67-66-3	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Chloromethane	74-87-3	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0027	U	0.0063	U	0.0036	U	0.0059	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0045	U,*	0.0042	U,*	0.0048	U,*	0.0051	U,*	0.0069	U,*	0.0048	U,*	0.0027	U	0.0063	U	0.0036	U	0.0059	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0017	J	0.0031	U	0.0018	U	0.0029	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	m&p-Xylenes	NA	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0049	J	0.0031	U	0.0018	U	0.0029	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.023	U,*	0.021	U,*	0.024	U,*	0.025	U,*	0.035	U,*	0.024	U,*	0.011	U	0.025	U	0.015	U	0.023	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0087	J	0.0063	U	0.0036	U	0.0059	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Naphthalene	91-20-3	mg/kg	0.023	U	0.021	U	0.024	U	0.025	U	0.035	U	0.024	U	0.013	U	0.031	U	0.018	U	0.029	U
VOCs	o-Xylene	95-47-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0027	J	0.0031	U	0.0018	U	0.0029	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Styrene	100-42-5	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.006	J	0.0031	U	0.0018	U	0.0029	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.045	U,*	0.042	U,*	0.048	U,*	0.051	U,*	0.069	U,*	0.048	U,*	0.011	U	0.025	U	0.015	U	0.023	U
VOCs	Toluene	108-88-3	mg/kg	0.0045	U	0.0004	J	0.0048	U	0.0004	J	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0036	J	0.0048	U	0.057	J	0.0048		0.0018	U	0.0029	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0027	U	0.0063	U	0.0036	U	0.0059	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	01SOIL		02SOIL		03SOIL		04SOIL		05SOIL		06SOIL		A-B1		A-B2		A-S1		A-S2	
			Field Sample ID	C110617-01 SOIL-0-1		C110617-02 SOIL-0-1		C110617-03 SOIL-0-1		C110617-04 SOIL-0-1		C110617-05 SOIL-0-1		C110617-06 SOIL-0-1		C022707-AB1		C022707-AB2		C022707-AS1		C022707-AS2	
			Sample Start Depth	0		0		0		0		0		0		3		3		2		2	
			Sample End Depth	1		1		1		1		1		1		3		3		3		3	
			Sample Date	11/6/2017		11/6/2017		11/6/2017		11/6/2017		11/6/2017		11/6/2017		2/27/2007		2/27/2007		2/27/2007		2/27/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Acenaphthene	83-32-9	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Acenaphthylene	208-96-8	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Anthracene	120-12-7	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	C11-C22 Aromatics	NA	mg/kg													58		12		3.7	U	4	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg													58		12		3.7	U	4	U
EPH	C19-C36 Aliphatics	NA	mg/kg													30		9.1		3.7	U	4	U
EPH	C9-C18 Aliphatics	NA	mg/kg													52		3.7	U	3.7	U	4	U
EPH	Chrysene	218-01-9	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Fluoranthene	206-44-0	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Fluorene	86-73-7	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Naphthalene	91-20-3	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Phenanthrene	85-01-8	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Pyrene	129-00-0	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Total EPH	NA	mg/kg													140		21		3.7	U	4	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	01SOIL		02SOIL		03SOIL		04SOIL		05SOIL		06SOIL		A-B1		A-B2		A-S1		A-S2	
			Field Sample ID	C110617-01 SOIL-0-1		C110617-02 SOIL-0-1		C110617-03 SOIL-0-1		C110617-04 SOIL-0-1		C110617-05 SOIL-0-1		C110617-06 SOIL-0-1		C022707-AB1		C022707-AB2		C022707-AS1		C022707-AS2	
			Sample Start Depth	0		0		0		0		0		0		3		3		2		2	
			Sample End Depth	1		1		1		1		1		1		3		3		3		3	
			Sample Date	11/6/2017		11/6/2017		11/6/2017		11/6/2017		11/6/2017		11/6/2017		2/27/2007		2/27/2007		2/27/2007		2/27/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg													12,000		35,000		15,000		51,000	
Metals	Antimony	7440-36-0	mg/kg													9.1	J	6.8	J	3.8	J	4.8	J
Metals	Arsenic	7440-38-2	mg/kg													46		48		32		8.2	
Metals	Barium	7440-39-3	mg/kg													130		120		63		150	
Metals	Beryllium	7440-41-7	mg/kg													1.3	U	1.4	U	1.2	U	1.4	U
Metals	Cadmium	7440-43-9	mg/kg													0.67	J	0.95	J	0.74	J	1.1	J
Metals	Calcium	7440-70-2	mg/kg													2,900	B	7,200	B	2,000	B	7,300	B
Metals	Chromium	7440-47-3	mg/kg	60	B	74	B	83	B	56	B	63	B	66	B	750	B	560	B	230	B	250	B
Metals	Cobalt	7440-48-4	mg/kg													7.1		23		9.8		29	
Metals	Copper	7440-50-8	mg/kg													990	B	910	B	310	B	360	B
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	2.9		0.6		0.4	U	0.4	U	0.2	J	2.5		140		0.61		0.49		0.53	
Metals	Iron	7439-89-6	mg/kg													29,000	B	59,000	B	27,000	B	62,000	B
Metals	Lead	7439-92-1	mg/kg													1,800	J	350	J	120	J	7.8	J
Metals	Magnesium	7439-95-4	mg/kg													8,100		20,000		8,600		26,000	
Metals	Manganese	7439-96-5	mg/kg													160		450		240		600	
Metals	Mercury	7439-97-6	mg/kg													0.15		0.1		0.035	J	0.039	J
Metals	Nickel	7440-02-0	mg/kg													38	B	110	B	48	B	110	B
Metals	Potassium	7440-09-7	mg/kg													4,600	J	11,000	J	3,500	J	20,000	J
Metals	Selenium	7782-49-2	mg/kg													3.3	U	3.5	U	2.9	U	3.5	U
Metals	Silver	7440-22-4	mg/kg													18		11		3.7		2.8	J
Metals	Sodium	7440-23-5	mg/kg													160	U	400	J	34	U	1100	B
Metals	Thallium	7440-28-0	mg/kg													6.6	U	7	U	5.9	U	6.9	U
Metals	Vanadium	7440-62-2	mg/kg													33		74		33		100	
Metals	Zinc	7440-66-6	mg/kg													57		120		50		110	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg													0.0088	NJ						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg													0.0076	NJ						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg													0.17	NJ						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg													0.09	NJ						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg													0.0086	NJ						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	A-S3		B-01		B-01		B-01		B-01		B-02		B-02		B-02		B-02		B-03	
			Field Sample ID	C022707-AS3		B1(0-1)		B1(11-13)		B1(5-7)		B1(9-11)		B2(0-1)		B2(13-15)		B2(5-7)		B2(7-9)		B3(11-13)	
			Sample Start Depth	2		0		11		5		9		0		13		5		7		11	
			Sample End Depth	3		1		13		7		11		1		15		7		9		13	
			Sample Date	2/27/2007		9/15/2003		9/16/2003		9/16/2003		9/16/2003		9/15/2003		9/16/2003		9/16/2003		9/16/2003		9/16/2003	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.002	U	0.11	U	0.13	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U	0.12	U	0.11	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.002	U	0.11	U	0.13	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U	0.12	U	0.11	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.002	U	0.057	U	0.067	U	0.054	U	0.057	U	0.056	U	0.056	U	0.054	U	0.058	U	0.054	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.2	U	5.7	U	6.7	U	5.4	U	5.7	U	5.6	U	5.6	U	5.4	U	5.8	U	5.4	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.016	U	0.57	U	0.67	U	0.54	U	0.57	U	0.56	U	0.56	U	0.54	U	0.58	U	0.54	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.016	U	0.57	U	0.67	U	0.54	U	0.57	U	0.56	U	0.56	U	0.54	U	0.58	U	0.54	U
VOCs	Acetone	67-64-1	mg/kg	0.2	UJ	1.1	U	1.3	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.2	U	1.1	U
VOCs	Benzene	71-43-2	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Bromoform	75-25-2	mg/kg	0.002	U	0.11	U	0.13	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U	0.12	U	0.11	U
VOCs	Bromomethane	74-83-9	mg/kg	0.0041	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Chloroethane	75-00-3	mg/kg	0.0041	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Chloroform	67-66-3	mg/kg	0.002	U	0.11	U	0.13	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U	0.12	U	0.11	U
VOCs	Chloromethane	74-87-3	mg/kg	0.0041	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.002	U	0.057	U	0.067	U	0.054	U	0.057	U	0.056	U	0.056	U	0.054	U	0.058	U	0.054	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.002	U	0.11	U	0.13	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U	0.12	U	0.11	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0041	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.002	U	0.57	U	0.67	U	0.54	U	0.57	U	0.56	U	0.56	U	0.54	U	0.58	U	0.54	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	m&p-Xylenes	NA	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.016	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0041	U	0.11	U	0.13	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U	0.12	U	0.11	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Naphthalene	91-20-3	mg/kg	0.02	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	o-Xylene	95-47-6	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Styrene	100-42-5	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.016	U	0.57	U	0.67	U	0.54	U	0.57	U	0.56	U	0.56	U	0.54	U	0.58	U	0.54	U
VOCs	Toluene	108-88-3	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.002	U	0.057	U	0.067	U	0.054	U	0.057	U	0.056	U	0.056	U	0.054	U	0.058	U	0.054	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.0022		0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0041	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg					0.38	U					0.37	U								
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg					0.38	U					0.37	U								
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg					0.38	U					0.37	U								
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg					0.38	U					0.37	U								
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg					0.38	U					0.37	U								
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg					0.38	U					0.37	U								
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg					0.38	U					0.37	U								
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg					0.38	U					0.37	U								
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg					1.9	U					1.9	U								
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg					0.38	U					0.37	U								
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg					0.38	U					0.37	U								
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg					0.38	U					0.37	U								
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg					0.38	U					0.37	U								
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg					0.38	U					0.37	U								
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg					0.38	U					0.37	U								

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	A-S3		B-01		B-01		B-01		B-01		B-02		B-02		B-02		B-02		B-03	
			Field Sample ID	C022707-AS3		B1(0-1)		B1(11-13)		B1(5-7)		B1(9-11)		B2(0-1)		B2(13-15)		B2(5-7)		B2(7-9)		B3(11-13)	
			Sample Start Depth	2		0		11		5		9		0		13		5		7		11	
			Sample End Depth	3		1		13		7		11		1		15		7		9		13	
			Sample Date	2/27/2007		9/15/2003		9/16/2003		9/16/2003		9/16/2003		9/15/2003		9/16/2003		9/16/2003		9/16/2003		9/16/2003	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg					1.9	U					1.9	U								
SVOCs	2-NITROPHENOL	88-75-5	mg/kg					0.38	U					0.37	U								
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg					0.38	U					0.37	U								
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg					0.38	U					0.37	U								
SVOCs	3-NITROANILINE	99-09-2	mg/kg					1.9	U					1.9	U								
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg					1.9	U					1.9	U								
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg					0.38	U					0.37	U								
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg					0.38	U					0.37	U								
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg					0.38	U					0.37	U								
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg					0.38	U					0.37	U								
SVOCs	4-NITROANILINE	100-01-6	mg/kg					1.9	U					1.9	U								
SVOCs	4-NITROPHENOL	100-02-7	mg/kg					1.9	U					1.9	U								
SVOCs	Acenaphthene	83-32-9	mg/kg					0.38	U					0.37	U								
SVOCs	Acenaphthylene	208-96-8	mg/kg					0.38	U					0.37	U								
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg					0.38	U					0.37	U								
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg					0.38	U					0.37	U								
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg					0.38	U					0.37	U								
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg					0.38	U					0.37	U								
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg					0.38	U					0.37	U								
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg					0.38	U					0.37	U								
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg					0.38	U					0.37	U								
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg					0.38	U					0.37	U								
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg					0.38	U					0.37	U								
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg					0.38	U					0.37	U								
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg					0.38	U					0.37	U								
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg					0.38	U					0.37	U								
SVOCs	CARBAZOLE	86-74-8	mg/kg					0.38	U					0.37	U								
SVOCs	Chrysene	218-01-9	mg/kg					0.38	U					0.37	U								
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg					0.38	U					0.37	U								
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg					0.38	U					0.37	U								
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg					0.38	U					0.37	U								
SVOCs	DIBENZOFURAN	132-64-9	mg/kg					0.38	U					0.37	U								
SVOCs	Diethyl phthalate	84-66-2	mg/kg					0.38	U					0.37	U								
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg					0.38	U					0.37	U								
SVOCs	Fluoranthene	206-44-0	mg/kg					0.38	U					0.37	U								
SVOCs	Fluorene	86-73-7	mg/kg					0.38	U					0.37	U								
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg					0.38	U					0.37	U								
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg					0.38	U					0.37	U								
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg					0.38	U					0.37	U								
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg					0.38	U					0.37	U								
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg					0.38	U					0.37	U								
SVOCs	ISOPHORONE	78-59-1	mg/kg					0.38	U					0.37	U								
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg					0.38	U					0.37	U								
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg					0.38	U					0.37	U								
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg					0.38	U					0.37	U								
SVOCs	Naphthalene	91-20-3	mg/kg					0.38	U					0.37	U								
SVOCs	NITROBENZENE	98-95-3	mg/kg					0.38	U					0.37	U								
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg					1.9	U					1.9	U								
SVOCs	Phenanthrene	85-01-8	mg/kg					0.38	U					0.37	U								
SVOCs	PHENOL	108-95-2	mg/kg					0.38	U					0.37	U								
SVOCs	Pyrene	129-00-0	mg/kg					0.38	U					0.37	U								
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.39	U																		
EPH	Acenaphthene	83-32-9	mg/kg	0.39	U																		
EPH	Acenaphthylene	208-96-8	mg/kg	0.39	U																		
EPH	Anthracene	120-12-7	mg/kg	0.39	U																		
EPH	Benzo[a]anthracene	56-55-3	mg/kg	1																			
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.58																			
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.77																			
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.39	U																		
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.64																			
EPH	C11-C22 Aromatics	NA	mg/kg	17																			
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	25																			
EPH	C19-C36 Aliphatics	NA	mg/kg	3.9	U																		
EPH	C9-C18 Aliphatics	NA	mg/kg	3.9	U																		
EPH	Chrysene	218-01-9	mg/kg	1.1																			
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.39	U																		
EPH	Fluoranthene	206-44-0	mg/kg	1.5																			
EPH	Fluorene	86-73-7	mg/kg	0.39	U																		
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.39	U																		
EPH	Naphthalene	91-20-3	mg/kg	0.39	U																		
EPH	Phenanthrene	85-01-8	mg/kg	0.82																			
EPH	Pyrene	129-00-0	mg/kg	1.4																			
EPH	Total EPH	NA	mg/kg	17																			
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	A-S3		B-01		B-01		B-01		B-01		B-02		B-02		B-02		B-02		B-03	
			Field Sample ID	C022707-AS3		B1(0-1)		B1(11-13)		B1(5-7)		B1(9-11)		B2(0-1)		B2(13-15)		B2(5-7)		B2(7-9)		B3(11-13)	
			Sample Start Depth	2		0		11		5		9		0		13		5		7		11	
			Sample End Depth	3		1		13		7		11		1		15		7		9		13	
			Sample Date	2/27/2007		9/15/2003		9/16/2003		9/16/2003		9/16/2003		9/15/2003		9/16/2003		9/16/2003		9/16/2003		9/16/2003	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	18,000										12,800		8,540		10,200				20,000	
Metals	Antimony	7440-36-0	mg/kg	2.3	J									6.8	U	6.79	U	6.8	U			6.89	U
Metals	Arsenic	7440-38-2	mg/kg	27										25.7		19.1		24.1				31	
Metals	Barium	7440-39-3	mg/kg	44										49.8		60.9		43.7				169	
Metals	Beryllium	7440-41-7	mg/kg	1.3	U									0.56	U	0.56	U	0.56	U			0.57	U
Metals	Cadmium	7440-43-9	mg/kg	1	J									0.56	U	0.56	U	0.56	U			0.57	U
Metals	Calcium	7440-70-2	mg/kg	4,100	B									1,250		2,500		1,630				4,370	
Metals	Chromium	7440-47-3	mg/kg	73	B	36		64.1		65.4				74.3		44.8		46.3				650	
Metals	Cobalt	7440-48-4	mg/kg	14										7.88		7.31		8.05				14.1	
Metals	Copper	7440-50-8	mg/kg	210	B									39		53.5		43.1				431	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.42		21.2		20.6		7.23				5.61		4.52	U	5.57				55.5	
Metals	Iron	7439-89-6	mg/kg	31,000	B									16,000		13,700		14,300				28,000	
Metals	Lead	7439-92-1	mg/kg	51	J									47.5		5.95		6.92				36.6	
Metals	Magnesium	7439-95-4	mg/kg	11,000										5,990		5,230		5,400				13,100	
Metals	Manganese	7439-96-5	mg/kg	730										281		283		282				397	
Metals	Mercury	7439-97-6	mg/kg	0.2										0.17		0.05	U	0.05	U			0.07	
Metals	Nickel	7440-02-0	mg/kg	52	B									26.5		24.9		28.5				55	
Metals	Potassium	7440-09-7	mg/kg	2,800	J									1,470		2,220		1,680				5,290	
Metals	Selenium	7782-49-2	mg/kg	3.4	U									1.13	U	1.13	U	1.13	U			1.15	U
Metals	Silver	7440-22-4	mg/kg	3.4	U									1.13	U	1.13	U	1.13	U			1.15	U
Metals	Sodium	7440-23-5	mg/kg	34	U									193		224		189				687	
Metals	Thallium	7440-28-0	mg/kg	6.7	U									5.67	U	5.66	U	5.67	U			5.74	U
Metals	Vanadium	7440-62-2	mg/kg	35										27.2		20		21.1				53.4	
Metals	Zinc	7440-66-6	mg/kg	52										57.3		31.4		32.4				61.8	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg					551	U							479	U						
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-03		B-03		B-03		B-04		B-04		B-05		B-05		B-05		B-09		B-10	
			Field Sample ID	B3(13-15)		B3(5-7)		B3(9-11)		B4(10-11)		B4(9-10)		B5(1-2)		B5(3-4)		B5(4)		B9(12-14)		B10(5-7)	
			Sample Start Depth	13		5		9		10		9		1		3		4		12		5	
			Sample End Depth	15		7		11		11		10		2		4		4		14		7	
			Sample Date	9/16/2003		9/16/2003		9/16/2003		9/16/2003		9/16/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U	0.1	U	0.1	U	0.11	U	0.12	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U	0.1	U	0.1	U	0.11	U	0.12	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.059	U	0.058	U	0.061	U	0.061	U	0.056	U	0.051	U	0.05	U	0.052	U	0.056	U	0.06	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	5.9	U	5.8	U	6.1	U	6.1	U	5.6	U	5.1	U	5	U	5.2	U	5.6	U	6	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.59	U	0.58	U	0.61	U	0.61	U	0.56	U	0.51	U	0.5	U	0.52	U	0.56	U	0.6	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.59	U	0.58	U	0.61	U	0.61	U	0.56	U	0.51	U	0.5	U	0.52	U	0.56	U	0.6	U
VOCs	Acetone	67-64-1	mg/kg	1.2	U	1.2	U	1.2	U	1.2	U	1.1	U	1	U	1	U	1	U	1.1	U	1.2	U
VOCs	Benzene	71-43-2	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Bromoform	75-25-2	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U	0.1	U	0.1	U	0.11	U	0.12	U
VOCs	Bromomethane	74-83-9	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Chloroethane	75-00-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Chloroform	67-66-3	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U	0.1	U	0.1	U	0.11	U	0.12	U
VOCs	Chloromethane	74-87-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.059	U	0.058	U	0.061	U	0.061	U	0.056	U	0.051	U	0.05	U	0.052	U	0.056	U	0.06	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U	0.1	U	0.1	U	0.11	U	0.12	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.59	U	0.58	U	0.61	U	0.61	U	0.56	U	0.51	U	0.5	U	0.52	U	0.56	U	0.6	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	m&p-Xylenes	NA	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U	0.1	U	0.1	U	0.11	U	0.12	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Naphthalene	91-20-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	o-Xylene	95-47-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Styrene	100-42-5	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.59	U	0.58	U	0.61	U	0.61	U	0.56	U	0.51	U	0.5	U	0.52	U	0.56	U	0.6	U
VOCs	Toluene	108-88-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.059	U	0.058	U	0.061	U	0.061	U	0.056	U	0.051	U	0.05	U	0.052	U	0.056	U	0.06	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.38	U													0.36	U				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.38	U													0.36	U				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.38	U													0.36	U				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.38	U													0.36	U				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg	0.38	U													0.36	U				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg	0.38	U													0.36	U				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg	0.38	U													0.36	U				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg	0.38	U													0.36	U				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg	2	U													1.9	U				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg	0.38	U													0.36	U				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg	0.38	U													0.36	U				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg	0.38	U													0.36	U				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg	0.38	U													0.36	U				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg	0.38	U													0.36	U				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg	0.38	U													0.36	U				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-03		B-03		B-03		B-04		B-04		B-05		B-05		B-05		B-09		B-10	
			Field Sample ID	B3(13-15)		B3(5-7)		B3(9-11)		B4(10-11)		B4(9-10)		B5(1-2)		B5(3-4)		B5(4)		B9(12-14)		B10(5-7)	
			Sample Start Depth	13		5		9		10		9		1		3		4		12		5	
			Sample End Depth	15		7		11		11		10		2		4		4		14		7	
			Sample Date	9/16/2003		9/16/2003		9/16/2003		9/16/2003		9/16/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg	2	U													1.9	U				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg	0.38	U													0.36	U				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg	0.38	U													0.36	U				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg	0.38	U													0.36	U				
SVOCs	3-NITROANILINE	99-09-2	mg/kg	2	U													1.9	U				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg	2	U													1.9	U				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg	0.38	U													0.36	U				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg	0.38	U													0.36	U				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg	0.38	U													0.36	U				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg	0.38	U													0.36	U				
SVOCs	4-NITROANILINE	100-01-6	mg/kg	2	U													1.9	U				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg	2	U													1.9	U				
SVOCs	Acenaphthene	83-32-9	mg/kg	0.38	U													0.36	U				
SVOCs	Acenaphthylene	208-96-8	mg/kg	0.38	U													0.36	U				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg	0.38	U													0.36	U				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg	0.38	U													0.36	U				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg	0.38	U													0.36	U				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg	0.38	U													0.36	U				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.38	U													0.36	U				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg	0.38	U													0.36	U				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg	0.38	U													0.36	U				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg	0.38	U													0.36	U				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg	0.38	U													0.36	U				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg	0.38	U													0.36	U				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg	0.38	U													0.36	U				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg	0.38	U													0.36	U				
SVOCs	CARBAZOLE	86-74-8	mg/kg	0.38	U													0.36	U				
SVOCs	Chrysene	218-01-9	mg/kg	0.38	U													0.36	U				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg	0.38	U													0.36	U				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg	0.38	U													0.36	U				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.38	U													0.36	U				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg	0.38	U													0.36	U				
SVOCs	Diethyl phthalate	84-66-2	mg/kg	0.38	U													0.36	U				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg	0.38	U													0.36	U				
SVOCs	Fluoranthene	206-44-0	mg/kg	0.38	U													0.36	U				
SVOCs	Fluorene	86-73-7	mg/kg	0.38	U													0.36	U				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg	0.38	U													0.36	U				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.38	U													0.36	U				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg	0.38	U													0.36	U				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg	0.38	U													0.36	U				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.38	U													0.36	U				
SVOCs	ISOPHORONE	78-59-1	mg/kg	0.38	U													0.36	U				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg	0.38	U													0.36	U				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg	0.38	U													0.36	U				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg	0.38	U													0.36	U				
SVOCs	Naphthalene	91-20-3	mg/kg	0.38	U													0.36	U				
SVOCs	NITROBENZENE	98-95-3	mg/kg	0.38	U													0.36	U				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg	2	U													1.9	U				
SVOCs	Phenanthrene	85-01-8	mg/kg	0.38	U													0.36	U				
SVOCs	PHENOL	108-95-2	mg/kg	0.38	U													0.36	U				
SVOCs	Pyrene	129-00-0	mg/kg	0.38	U													0.36	U				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-03		B-03		B-03		B-04		B-04		B-05		B-05		B-05		B-09		B-10	
			Field Sample ID	B3(13-15)		B3(5-7)		B3(9-11)		B4(10-11)		B4(9-10)		B5(1-2)		B5(3-4)		B5(4)		B9(12-14)		B10(5-7)	
			Sample Start Depth	13		5		9		10		9		1		3		4		12		5	
			Sample End Depth	15		7		11		11		10		2		4		4		14		7	
			Sample Date	9/16/2003		9/16/2003		9/16/2003		9/16/2003		9/16/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	15,000		22,300																	
Metals	Antimony	7440-36-0	mg/kg	6.94	U	6.87	U																
Metals	Arsenic	7440-38-2	mg/kg	34.6		63																	
Metals	Barium	7440-39-3	mg/kg	137		135																	
Metals	Beryllium	7440-41-7	mg/kg	0.57	U	0.57	U																
Metals	Cadmium	7440-43-9	mg/kg	0.57	U	0.57	U																
Metals	Calcium	7440-70-2	mg/kg	4,550		2,130																	
Metals	Chromium	7440-47-3	mg/kg	630		575				882				170		260		974		515			
Metals	Cobalt	7440-48-4	mg/kg	11.9		17																	
Metals	Copper	7440-50-8	mg/kg	390		749																	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	112		36.5				396				4.28	U	21.3		38.4		38.9			
Metals	Iron	7439-89-6	mg/kg	19,700		31,500																	
Metals	Lead	7439-92-1	mg/kg	5.79	U	11.7																	
Metals	Magnesium	7439-95-4	mg/kg	9,850		16,000																	
Metals	Manganese	7439-96-5	mg/kg	399		320																	
Metals	Mercury	7439-97-6	mg/kg	0.05	U	0.05	U																
Metals	Nickel	7440-02-0	mg/kg	38.1		72.5																	
Metals	Potassium	7440-09-7	mg/kg	5,140		6,280																	
Metals	Selenium	7782-49-2	mg/kg	1.16	U	1.15	U																
Metals	Silver	7440-22-4	mg/kg	1.16	U	1.15	U																
Metals	Sodium	7440-23-5	mg/kg	542		199																	
Metals	Thallium	7440-28-0	mg/kg	5.79	U	5.73	U																
Metals	Vanadium	7440-62-2	mg/kg	39.8		65.8																	
Metals	Zinc	7440-66-6	mg/kg	36.7		68.2																	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg	668						514								1,700		510	U		
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-10		B-10		B-100		B-102		B-11		B-11		B-11		B-11		B-12		B-12	
			Field Sample ID	B10(7-9)		B10(9-11)		C052405-B100S2		C052405-B102S2A		B11(0-2)		B11(12-13)		B11(5-7)		B11(7-9)		B12(11-13)		B12(5-6)	
			Sample Start Depth	7		9		4		6		0		12		5		7		11		5	
			Sample End Depth	9		11		5.5		7		2		13		7		9		13		6	
			Sample Date	9/17/2003		9/17/2003		5/24/2005		5/24/2005		9/15/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.12	U	0.1	U					0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.12	U	0.1	U					0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.058	U	0.052	U					0.059	U	0.058	U	0.059	U	0.058	U	0.054	U	0.051	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	5.8	U	5.2	U					5.9	U	5.8	U	5.9	U	5.8	U	5.4	U	5.1	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.58	U	0.52	U					0.59	U	0.58	U	0.59	U	0.58	U	0.54	U	0.51	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.58	U	0.52	U					0.59	U	0.58	U	0.59	U	0.58	U	0.54	U	0.51	U
VOCs	Acetone	67-64-1	mg/kg	1.2	U	1	U					1.2	U	1.2	U	1.2	U	1.2	U	1.1	U	1	U
VOCs	Benzene	71-43-2	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Bromoform	75-25-2	mg/kg	0.12	U	0.1	U					0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U
VOCs	Bromomethane	74-83-9	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Chloroethane	75-00-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Chloroform	67-66-3	mg/kg	0.12	U	0.1	U					0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U
VOCs	Chloromethane	74-87-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.058	U	0.052	U					0.059	U	0.058	U	0.059	U	0.058	U	0.054	U	0.051	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.12	U	0.1	U					0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.58	U	0.52	U					0.59	U	0.58	U	0.59	U	0.58	U	0.54	U	0.51	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	m&p-Xylenes	NA	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.12	U	0.1	U					0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Naphthalene	91-20-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	o-Xylene	95-47-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Styrene	100-42-5	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.58	U	0.52	U					0.59	U	0.58	U	0.59	U	0.58	U	0.54	U	0.51	U
VOCs	Toluene	108-88-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.058	U	0.052	U					0.059	U	0.058	U	0.059	U	0.058	U	0.054	U	0.051	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-10		B-10		B-100		B-102		B-11		B-11		B-11		B-11		B-12		B-12	
			Field Sample ID	B10(7-9)		B10(9-11)		C052405-B100S2		C052405-B102S2A		B11(0-2)		B11(12-13)		B11(5-7)		B11(7-9)		B12(11-13)		B12(5-6)	
			Sample Start Depth	7		9		4		6		0		12		5		7		11		5	
			Sample End Depth	9		11		5.5		7		2		13		7		9		13		6	
			Sample Date	9/17/2003		9/17/2003		5/24/2005		5/24/2005		9/15/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-10		B-10		B-100		B-102		B-11		B-11		B-11		B-11		B-12		B-12	
			Field Sample ID	B10(7-9)		B10(9-11)		C052405-B100S2		C052405-B102S2A		B11(0-2)		B11(12-13)		B11(5-7)		B11(7-9)		B12(11-13)		B12(5-6)	
			Sample Start Depth	7		9		4		6		0		12		5		7		11		5	
			Sample End Depth	9		11		5.5		7		2		13		7		9		13		6	
			Sample Date	9/17/2003		9/17/2003		5/24/2005		5/24/2005		9/15/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg									11,800		20,600		12,000				13,100		12,200	
Metals	Antimony	7440-36-0	mg/kg					1.5	B	2.2	B	6.94	U	6.72	U	6.9	U			6.76	U	6.93	U
Metals	Arsenic	7440-38-2	mg/kg					28		130		20.7		31.5		33.6				27.8		32.8	
Metals	Barium	7440-39-3	mg/kg									42.4		138		48.5				64		55.1	
Metals	Beryllium	7440-41-7	mg/kg					0.8	U	1.7	U	0.57	U	0.6		0.57	U			0.56	U	0.57	U
Metals	Cadmium	7440-43-9	mg/kg									1.67		0.56	U	0.57	U			0.56	U	0.57	U
Metals	Calcium	7440-70-2	mg/kg									1,670		2,020		1,980				2,420		1,890	
Metals	Chromium	7440-47-3	mg/kg	1030		187		1600		4200		44.3		615		116				548		169	
Metals	Cobalt	7440-48-4	mg/kg									6.39		19		10.7				10.9		9.62	
Metals	Copper	7440-50-8	mg/kg					1300		2500		48.8		411		344				350		87.1	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	203		34.2		260		0.22	U	4.63	U	78.2		5.22				78.8		8.73	
Metals	Iron	7439-89-6	mg/kg									12,200		33,500		17,500				21,700		16,500	
Metals	Lead	7439-92-1	mg/kg					470		180		31.1		10.7		9.89				11.4		12.7	
Metals	Magnesium	7439-95-4	mg/kg									3,810		13,200		7,400				8,250		7,170	
Metals	Manganese	7439-96-5	mg/kg									252		492		361				384		312	
Metals	Mercury	7439-97-6	mg/kg									0.08		0.05	U	0.05	U			0.05	U	0.05	U
Metals	Nickel	7440-02-0	mg/kg									21.6		73.8		38.5				43.6		36.7	
Metals	Potassium	7440-09-7	mg/kg									721		6,150		1,700				2,380		1,780	
Metals	Selenium	7782-49-2	mg/kg									1.16	U	1.12	U	1.15	U			1.13	U	1.15	U
Metals	Silver	7440-22-4	mg/kg									1.16	U	1.12	U	1.15	U			1.13	U	1.15	U
Metals	Sodium	7440-23-5	mg/kg									116	U	194		163				204		253	
Metals	Thallium	7440-28-0	mg/kg									5.79	U	5.6	U	5.75	U			5.63	U	5.77	U
Metals	Vanadium	7440-62-2	mg/kg									22.1		50.8		26.2				26.9		26.1	
Metals	Zinc	7440-66-6	mg/kg									53		67.1		40.7				43.9		38.1	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg			861								685	U					911			
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-12		B-12		B-13		B-14		B-14		B-15		B-15		B-15		B-16		B-16	
			Field Sample ID	B12(6-7)		B12(7-9)		C062104-B13-13-14		C062104-B14-12-13		C062104-B14-14-15		C062104-B15-0-2		C062104-B15-12-13		C062104-B15-6-8		C062104-B16-10-12		C062104-B16-4-6	
			Sample Start Depth	6		7		13		12		14		0		12		6		10		4	
			Sample End Depth	7		9		14		13		15		2		13		8		12		6	
			Sample Date	9/17/2003		9/17/2003		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.12	U	0.12	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.12	U	0.12	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.06	U	0.06	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	6	U	6	U	0.23	U	34	U	0.2	U	0.24	U	0.23	U	0.25	U	0.24	U	0.24	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.6	U	0.6	U	0.018	U	2.7	U	0.016	U	0.019	U	0.018	U	0.02	U	0.019	U	0.02	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.6	U	0.6	U	0.018	U	2.7	U	0.016	U	0.019	U	0.018	U	0.02	U	0.019	U	0.02	U
VOCs	Acetone	67-64-1	mg/kg	1.2	U	1.2	U	0.045	U	6.8	U	0.039	U	0.048	U	0.046	U	0.05	U	0.047	U	0.049	U
VOCs	Benzene	71-43-2	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Bromoform	75-25-2	mg/kg	0.12	U	0.12	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Bromomethane	74-83-9	mg/kg	0.3	U	0.3	U	0.0045	U	0.68	U	0.0039	U	0.0048	U	0.0046	U	0.005	U	0.0047	U	0.0049	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.3	U	0.3	U	0.045	U	6.8	U	0.039	U	0.048	U	0.046	U	0.05	U	0.047	U	0.049	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Chloroethane	75-00-3	mg/kg	0.3	U	0.3	U	0.0045	U	0.68	U	0.0039	U	0.0048	U	0.0046	U	0.005	U	0.0047	U	0.0049	U
VOCs	Chloroform	67-66-3	mg/kg	0.12	U	0.12	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Chloromethane	74-87-3	mg/kg	0.3	U	0.3	U	0.0045	U	0.68	U	0.0039	U	0.0048	U	0.0046	U	0.005	U	0.0047	U	0.0049	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.06	U	0.06	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.12	U	0.12	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.6	U	0.6	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.3	U	0.3	U	0.0023	U	3.1		0.026		0.0024	U	0.0063		0.0025	U	0.0024	U	0.0024	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	m&p-Xylenes	NA	mg/kg	0.3	U	0.3	U	0.0023	U	17		0.14		0.0033		0.036		0.0038		0.0024	U	0.0024	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.3	U	0.3	U	0.018	U	2.7	U	0.016	U	0.019	U	0.018	U	0.02	U	0.019	U	0.02	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.3	U	0.3	U	0.0045	U	0.68	U	0.0039	U	0.0048	U	0.0046	U	0.005	U	0.0047	U	0.0049	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.12	U	0.12	U	0.0045	U	0.68	U	0.0039	U	0.0048	U	0.0046	U	0.005	U	0.0047	U	0.0049	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Naphthalene	91-20-3	mg/kg	0.3	U	0.3	U	0.023	U	3.4	U	0.02	U	0.024	U	0.023	U	0.025	U	0.024	U	0.024	U
VOCs	o-Xylene	95-47-6	mg/kg	0.3	U	0.3	U	0.0023	U	3.7		0.038		0.0024	U	0.0097		0.0025	U	0.0024	U	0.0024	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Styrene	100-42-5	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.6	U	0.6	U	0.0045	U	0.68	U	0.0039	U	0.0048	U	0.0046	U	0.005	U	0.0047	U	0.0049	U
VOCs	Toluene	108-88-3	mg/kg	0.3	U	0.3	U	0.0023	U	1.2		0.014		0.0024	U	0.0027		0.0025	U	0.0024	U	0.0024	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.06	U	0.06	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.0027		0.0042		0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.3	U	0.3	U	0.0045	U	0.68	U	0.0039	U	0.0048	U	0.0046	U	0.005	U	0.0047	U	0.0049	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-12		B-12		B-13		B-14		B-14		B-15		B-15		B-15		B-16		B-16	
			Field Sample ID	B12(6-7)		B12(7-9)		C062104-B13-13-14		C062104-B14-12-13		C062104-B14-14-15		C062104-B15-0-2		C062104-B15-12-13		C062104-B15-6-8		C062104-B16-10-12		C062104-B16-4-6	
			Sample Start Depth	6		7		13		12		14		0		12		6		10		4	
			Sample End Depth	7		9		14		13		15		2		13		8		12		6	
			Sample Date	9/17/2003		9/17/2003		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg					0.77	U	0.76	U			7.4	U			0.74	U			0.67	U
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg					0.77	U	0.76	U			7.4	U			0.74	U			0.67	U
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg					1.9	U	1.9	U			18	U			1.8	U			1.7	U
SVOCs	Acenaphthene	83-32-9	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Acenaphthylene	208-96-8	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Acetophenone	98-86-2	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Aniline	62-53-3	mg/kg					1.9	U	1.9	U			18	U			1.8	U			1.7	U
SVOCs	Anthracene	120-12-7	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Azobenzene	103-33-3	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg					0.38	U	0.23	J			3.7	U			0.37	U			0.23	J
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	DIBENZOFURAN	132-64-9	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Diethyl phthalate	84-66-2	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Fluoranthene	206-44-0	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Fluorene	86-73-7	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	ISOPHORONE	78-59-1	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg					0.22		0.19	U			1.8	U			0.18	U			0.24	
SVOCs	NITROBENZENE	98-95-3	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg					1.9	U	1.9	U			18	U			1.8	U			1.7	U
SVOCs	Phenanthrene	85-01-8	mg/kg					0.19	J	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	PHENOL	108-95-2	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Pyrene	129-00-0	mg/kg					0.15	J	0.19	U			1.8	U			0.18	U			0.17	U
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg					3.8	U	3.9	U							3.6	U			3.4	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg											110				3.6	U				
EPH	C19-C36 Aliphatics	NA	mg/kg					3.8	U	3.9	U			11				3.6	U			3.4	U
EPH	C9-C18 Aliphatics	NA	mg/kg					3.8	U	3.9	U			3.7	U			3.6	U			3.4	U
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg					3.8	U	3.9	U			120									
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-12		B-12		B-13		B-14		B-14		B-15		B-15		B-15		B-16		B-16	
			Field Sample ID	B12(6-7)		B12(7-9)		C062104-B13-13-14		C062104-B14-12-13		C062104-B14-14-15		C062104-B15-0-2		C062104-B15-12-13		C062104-B15-6-8		C062104-B16-10-12		C062104-B16-4-6	
			Sample Start Depth	6		7		13		12		14		0		12		6		10		4	
			Sample End Depth	7		9		14		13		15		2		13		8		12		6	
			Sample Date	9/17/2003		9/17/2003		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg			8,140		16,000		7,600				10,000				17,000				5,800	
Metals	Antimony	7440-36-0	mg/kg			6.75	U	2.2	U	1.2	U			1.2	U	1.3	U	2.1	U	1.3	U	1.1	U
Metals	Arsenic	7440-38-2	mg/kg			12.8		12		13				30		46		23		130		5.8	
Metals	Barium	7440-39-3	mg/kg			40.7		43		35				36				78				25	
Metals	Beryllium	7440-41-7	mg/kg			0.56	U	0.33		0.17				0.23		0.13	U	0.45		0.17		0.12	
Metals	Cadmium	7440-43-9	mg/kg			0.56	U	0.22	U	0.12	U			0.12	U			0.25				0.11	U
Metals	Calcium	7440-70-2	mg/kg			1,650		2,500		1,700				1,200				1,500				1,200	
Metals	Chromium	7440-47-3	mg/kg			551		410		44				75		200		190		750		24	
Metals	Cobalt	7440-48-4	mg/kg			5.62	U	17		6.5				7.9				11				3.7	
Metals	Copper	7440-50-8	mg/kg			238		21		13				30		130		68		150		16	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg			38.6		9.3		0.27	U			1.7	U			0.62				0.16	U
Metals	Iron	7439-89-6	mg/kg			12,900		31,000		11,000				15,000				18,000				8,600	
Metals	Lead	7439-92-1	mg/kg			5.62	U	8.6		4.3				9.4		8.7		8		12		4.4	
Metals	Magnesium	7439-95-4	mg/kg			4,650		13,000		4,600				5,800				7,600				3,600	
Metals	Manganese	7439-96-5	mg/kg			108		230		120				220				340				79	
Metals	Mercury	7439-97-6	mg/kg			0.05	U	0.12	U	0.089	U			0.099	U			0.09	U			0.097	U
Metals	Nickel	7440-02-0	mg/kg			23.1		59		26				26				38				16	
Metals	Potassium	7440-09-7	mg/kg			1,810		3,100		2,200				1,900				3,700				1,600	
Metals	Selenium	7782-49-2	mg/kg			1.12	U	1.1	U	0.61	U			0.61	U			1.1	U			0.53	U
Metals	Silver	7440-22-4	mg/kg			1.12	U	1.1	U	0.61	U			0.61	U			1.1	U			0.53	U
Metals	Sodium	7440-23-5	mg/kg			237		240		190				130				120				150	
Metals	Thallium	7440-28-0	mg/kg			5.62	U	1.1	U	0.61	U			0.61	U			1.1	U			0.69	
Metals	Vanadium	7440-62-2	mg/kg			14.7		35		16				23				31				13	
Metals	Zinc	7440-66-6	mg/kg			26.5		72		26				31				42				20	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-16		B-17		B-18		B-18		B-18		B-19		B-20		B-20		B-20		B-200	
			Field Sample ID	C062104-B16-6-8		C062104-B17-12-12.5		C062104-B18-12-13.2		C062104-B18-4-6		C062104-B18-6-7.5		C062104-B19-12-13.5		C062104-B20-14-14.8		C062104-B20-4-6		C062104-B20-8-10		B200 ≤1	
			Sample Start Depth	6		12		12		4		6		12		14		4		8		0	
			Sample End Depth	8		12.5		13.2		6		7.5		13.5		14.8		6		10		3	
			Sample Date	6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.21	U	0.29	U	0.22	U	61	U	0.21	U	0.24	U	0.21	U	0.17	U	0.14	U		
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	2-Hexanone	591-78-6	mg/kg	0.017	U	0.024	U	0.017	U	4.9	U	0.017	U	0.019	U	0.017	U	0.014	U	0.011	U		
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.017	U	0.024	U	0.017	U	4.9	U	0.017	U	0.019	U	0.017	U	0.014	U	0.011	U		
VOCs	Acetone	67-64-1	mg/kg	0.041	U	0.059	U	0.043	U	12	U	0.043	U	0.048	U	0.042	U	0.034	U	0.028	U		
VOCs	Benzene	71-43-2	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Bromobenzene	108-86-1	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Bromoform	75-25-2	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Bromomethane	74-83-9	mg/kg	0.0041	U	0.0059	U	0.0043	U	1.2	U	0.0043	U	0.0048	U	0.0042	U	0.0034	U	0.0028	U		
VOCs	Carbon disulfide	75-15-0	mg/kg	0.041	U	0.059	U	0.043	U	12	U	0.043	U	0.048	U	0.042	U	0.034	U	0.028	U		
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Chloroethane	75-00-3	mg/kg	0.0041	U	0.0059	U	0.0043	U	1.2	U	0.0043	U	0.0048	U	0.0042	U	0.0034	U	0.0028	U		
VOCs	Chloroform	67-66-3	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Chloromethane	74-87-3	mg/kg	0.0041	U	0.0059	U	0.0043	U	1.2	U	0.0043	U	0.0048	U	0.0042	U	0.0034	U	0.0028	U		
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Dibromomethane	74-95-3	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	m&p-Xylenes	NA	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.017	U	0.024	U	0.017	U	4.9	U	0.017	U	0.019	U	0.017	U	0.014	U	0.011	U		
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0041	U	0.0059	U	0.0043	U	1.2	U	0.0043	U	0.0048	U	0.0042	U	0.0034	U	0.0028	U		
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0041	U	0.0059	U	0.0043	U	1.2	U	0.0043	U	0.0048	U	0.0042	U	0.0034	U	0.0028	U		
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Naphthalene	91-20-3	mg/kg	0.021	U	0.029	U	0.022	U	6.1	U	0.021	U	0.024	U	0.021	U	0.017	U	0.014	U		
VOCs	o-Xylene	95-47-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Styrene	100-42-5	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.0041	U	0.0059	U	0.0043	U	1.2	U	0.0043	U	0.0048	U	0.0042	U	0.0034	U	0.0028	U		
VOCs	Toluene	108-88-3	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Trichloroethene	79-01-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0041	U	0.0059	U	0.0043	U	1.2	U	0.0043	U	0.0048	U	0.0042	U	0.0034	U	0.0028	U		
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-16		B-17		B-18		B-18		B-18		B-19		B-20		B-20		B-20		B-200	
			Field Sample ID	C062104-B16-6-8		C062104-B17-12-12.5		C062104-B18-12-13.2		C062104-B18-4-6		C062104-B18-6-7.5		C062104-B19-12-13.5		C062104-B20-14-14.8		C062104-B20-4-6		C062104-B20-8-10		B200 ≤1	
			Sample Start Depth	6		12		12		4		6		12		14		4		8		0	
			Sample End Depth	8		12.5		13.2		6		7.5		13.5		14.8		6		10		3	
			Sample Date	6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg	0.72	U					0.73	U	0.73	U					0.71	U	0.75	U		
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg	0.72	U					0.73	U	0.73	U					0.71	U	0.75	U		
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg	1.8	U					1.8	U	1.8	U					1.8	U	1.9	U		
SVOCs	Acenaphthene	83-32-9	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Acenaphthylene	208-96-8	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Acetophenone	98-86-2	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Aniline	62-53-3	mg/kg	1.8	U					1.8	U	1.8	U					1.8	U	1.9	U		
SVOCs	Anthracene	120-12-7	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Azobenzene	103-33-3	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg	0.36	U					0.36	U	0.36	U					0.24	J	0.22	J		
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	DIBENZOFURAN	132-64-9	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Diethyl phthalate	84-66-2	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Fluoranthene	206-44-0	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Fluorene	86-73-7	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	ISOPHORONE	78-59-1	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	NITROBENZENE	98-95-3	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg	1.8	U					1.8	U	1.8	U					1.8	U	1.9	U		
SVOCs	Phenanthrene	85-01-8	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	PHENOL	108-95-2	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Pyrene	129-00-0	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																			0.38	U
EPH	Acenaphthene	83-32-9	mg/kg																			0.38	U
EPH	Acenaphthylene	208-96-8	mg/kg																			0.38	U
EPH	Anthracene	120-12-7	mg/kg																			0.38	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg																			0.38	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg																			0.38	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																			0.38	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																			0.38	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																			0.38	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.6	U					3.6	U											12	
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg									4.9						3.6	U	3.7	U	12	
EPH	C19-C36 Aliphatics	NA	mg/kg	3.6	U					3.6	U	12						3.6	U	3.7	U	15	
EPH	C9-C18 Aliphatics	NA	mg/kg	3.6	U					3.6	U	3.6	U					3.6	U	3.7	U	3.8	U
EPH	Chrysene	218-01-9	mg/kg																			0.38	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																			0.38	U
EPH	Fluoranthene	206-44-0	mg/kg																			0.38	
EPH	Fluorene	86-73-7	mg/kg																			0.38	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																			0.38	U
EPH	Naphthalene	91-20-3	mg/kg																			0.38	U
EPH	Phenanthrene	85-01-8	mg/kg																			0.38	U
EPH	Pyrene	129-00-0	mg/kg																			0.4	
EPH	Total EPH	NA	mg/kg							3.6	U	17						3.6	U	3.7	U	27	
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-16		B-17		B-18		B-18		B-18		B-19		B-20		B-20		B-20		B-200	
			Field Sample ID	C062104-B16-6-8		C062104-B17-12-12.5		C062104-B18-12-13.2		C062104-B18-4-6		C062104-B18-6-7.5		C062104-B19-12-13.5		C062104-B20-14-14.8		C062104-B20-4-6		C062104-B20-8-10		B200 ≤1	
			Sample Start Depth	6		12		12		4		6		12		14		4		8		0	
			Sample End Depth	8		12.5		13.2		6		7.5		13.5		14.8		6		10		3	
			Sample Date	6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	16,000						11,000		14,000						15,000		12,000		9,210	J
Metals	Antimony	7440-36-0	mg/kg	1.1	U	1.4	U	1.4	U	2.3	U	2.4	U	1.5	U	1.5	U	2.4	U	2.2	U	0.37	J
Metals	Arsenic	7440-38-2	mg/kg	110		27		41		30		28		19		42		37		23		49	J
Metals	Barium	7440-39-3	mg/kg	72						31		52						50		46		64.1	J
Metals	Beryllium	7440-41-7	mg/kg	0.29		0.14	U	0.14	U	0.23	U	0.31		0.15	U	0.15	U	0.3		0.36		0.32	B
Metals	Cadmium	7440-43-9	mg/kg	0.11	U					0.23	U	0.24	U					0.24	U	0.22	U	0.58	U
Metals	Calcium	7440-70-2	mg/kg	2,000						1,200		1,800						1,400		1,400		2,160	
Metals	Chromium	7440-47-3	mg/kg	130		330		1100		1100		650		61		76		360		52		2310	
Metals	Cobalt	7440-48-4	mg/kg	13						5.7		9.1						8.8		11		5.6	J
Metals	Copper	7440-50-8	mg/kg	31		270		460		77		97		150		50		130		180		258	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	120						31		26						10		3.6		17.6	J
Metals	Iron	7439-89-6	mg/kg	23,000						15,000		17,000						18,000		16,000		14,900	
Metals	Lead	7439-92-1	mg/kg	7.5		15		11		15		7.2		8.3		6.9		6.4		6.4		97.5	
Metals	Magnesium	7439-95-4	mg/kg	12,000						6,900		7,900						8,300		6,600		5,420	J
Metals	Manganese	7439-96-5	mg/kg	380						130		280						290		480		242	J
Metals	Mercury	7439-97-6	mg/kg	0.11	U					0.087	U	0.075	U					0.1	U	0.099	U	0.075	
Metals	Nickel	7440-02-0	mg/kg	55						28		35						35		36		22	J
Metals	Potassium	7440-09-7	mg/kg	4,000						1,700		2,000						2,000		2,000		2,060	J
Metals	Selenium	7782-49-2	mg/kg	0.56	U					1.1	U	1.2	U					1.2	U	1.1	U	0.58	U
Metals	Silver	7440-22-4	mg/kg	0.56	U					1.1	U	1.2	U					1.2	U	1.1	U	0.23	B
Metals	Sodium	7440-23-5	mg/kg	170						110	U	270						120	U	110		33.8	B
Metals	Thallium	7440-28-0	mg/kg	0.8						1.1	U	1.2	U					1.2	U	1.1	U	1.1	B
Metals	Vanadium	7440-62-2	mg/kg	40						24		27						30		24		41.8	J
Metals	Zinc	7440-66-6	mg/kg	49						29		35						36		36		35.9	J
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg							0.38	J												
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-200		B-200		B-200		B-201		B-201		B-201		B-201		B-202		B-202		B-202	
			Field Sample ID	B200 s2		B200 s2 RE		B200 s3		B201 s1		B201 s2		B201 s3		B201 s4		B202 s1		B202 s2		B202 s3	
			Sample Start Depth	4		4		7		0		4		7		11		0		4		7	
			Sample End Depth	7		7		11		3		7		11		12		3		7		11	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-200		B-200		B-200		B-201		B-201		B-201		B-201		B-202		B-202		B-202	
			Field Sample ID	B200 s2		B200 s2 RE		B200 s3		B201 s1		B201 s2		B201 s3		B201 s4		B202 s1		B202 s2		B202 s3	
			Sample Start Depth	4		4		7		0		4		7		11		0		4		7	
			Sample End Depth	7		7		11		3		7		11		12		3		7		11	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Acenaphthene	83-32-9	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Acenaphthylene	208-96-8	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Anthracene	120-12-7	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	C11-C22 Aromatics	NA	mg/kg			11	UJ	4.3		3.6	U	3.7	U	3.8	U	3.7	U	7		4.7		3.7	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg			11	UJ	4.3		3.6	U	3.7	U	3.8	U	3.7	U	7		4.7		3.7	U
EPH	C19-C36 Aliphatics	NA	mg/kg			40	J	7.4		4.4		3.7	U	6.7		9.6		6.7		4.5		3.7	U
EPH	C9-C18 Aliphatics	NA	mg/kg			13	J	3.6	U	3.6	U	3.7	U	3.8	U	5.8		3.7	U	3.7	U	3.7	U
EPH	Chrysene	218-01-9	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Fluoranthene	206-44-0	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Fluorene	86-73-7	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Naphthalene	91-20-3	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Phenanthrene	85-01-8	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Pyrene	129-00-0	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Total EPH	NA	mg/kg			53	J	12		4.4		3.7	U	6.7		15		14		9.3		3.7	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-200		B-200		B-200		B-201		B-201		B-201		B-201		B-202		B-202		B-202	
			Field Sample ID	B200 s2		B200 s2 RE		B200 s3		B201 s1		B201 s2		B201 s3		B201 s4		B202 s1		B202 s2		B202 s3	
			Sample Start Depth	4		4		7		0		4		7		11		0		4		7	
			Sample End Depth	7		7		11		3		7		11		12		3		7		11	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	11,100	J			20,000	J	11,000	J	16,900	J	13,400	J	16,500	J	14,000	J	11,500	J	22,200	J
Metals	Antimony	7440-36-0	mg/kg	0.4	J			0.44	J	1.1	UJ	1.1	UJ	1.2	UJ	1.1	UJ	1.1	UJ	1.2	UJ	1.1	UJ
Metals	Arsenic	7440-38-2	mg/kg	24.4				11.9		36.5	J	35.8		20.6		25.8		41.5	J	32.5		56.1	
Metals	Barium	7440-39-3	mg/kg	48.9				128		68.3	J	90.9		69.7		31.1		57.4	J	45.3		104	
Metals	Beryllium	7440-41-7	mg/kg	0.47	J			0.47		0.42	B	0.68	J	0.47		0.39	B	0.61		0.55	J	0.66	
Metals	Cadmium	7440-43-9	mg/kg	0.56	U			0.57	U	0.54	U	0.56	U	0.58	U	0.54	U	0.56	U	0.58	U	0.57	U
Metals	Calcium	7440-70-2	mg/kg	835				1,230		812		1,080		2,300		1,950		1,030		1,380		2,440	
Metals	Chromium	7440-47-3	mg/kg	1060				790	J	225		831		487	J	641	J	47.4		38.7		1210	J
Metals	Cobalt	7440-48-4	mg/kg	8.8				13.9		6.6	J	10		8.6		16.7		8.3	J	7.6		16.4	
Metals	Copper	7440-50-8	mg/kg	386				317	J	48.1		281		268	J	182	J	20.8		14.8		442	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	41.8				53.2	J	29.4	J	16.7		31.1	J	159	J	0.45	UJ	0.46	U	96.7	J
Metals	Iron	7439-89-6	mg/kg	18,800				32,200	J	18,000		22,900		18,500	J	29,300	J	19,700		18,100		34,000	J
Metals	Lead	7439-92-1	mg/kg	7.3				8.8		11.9		8.8		6.8		5.9		122		15.2		7.7	
Metals	Magnesium	7439-95-4	mg/kg	7,430				15,100	J	8,260	J	9,160		8,770	J	15,300	J	8,570	J	6,680		17,500	J
Metals	Manganese	7439-96-5	mg/kg	228	J			368	J	261	J	462	J	352	J	356	J	265	J	257	J	357	J
Metals	Mercury	7439-97-6	mg/kg	0.037	U			0.038	U	0.036	U	0.037	U	0.038	U	0.035	U	0.066		0.012	B	0.038	U
Metals	Nickel	7440-02-0	mg/kg	38.2				56.6		32.6	J	43.7		38.5		56.6		37.4	J	30.2		71.7	
Metals	Potassium	7440-09-7	mg/kg	2,300	J			9,470	J	3,470	J	3,470	J	3,660	J	1,780	J	2,920	J	2,120	J	7,630	J
Metals	Selenium	7782-49-2	mg/kg	0.56	U			0.57	U	0.54	U	0.64		0.58	U	0.54	U	0.56	U	0.39	B	0.57	U
Metals	Silver	7440-22-4	mg/kg	0.049	B			0.065	B	0.067	B	0.045	B	0.099	B	0.1	B	0.049	B	0.58	U	0.1	B
Metals	Sodium	7440-23-5	mg/kg	559	U			44.7	B	17.3	B	559	U	117	B	537	U	19.8	B	42.6	B	52.9	B
Metals	Thallium	7440-28-0	mg/kg	0.69	B			1.1		1.1	U	0.98	B	1.2	U	0.62	B	0.56	B	1.2	U	1.4	
Metals	Vanadium	7440-62-2	mg/kg	26.5				59.4		40.2	J	34.5		32		50		35	J	27.8		63.5	
Metals	Zinc	7440-66-6	mg/kg	36.8	J			65.2	J	35.5	J	42.2	J	34.9	J	67	J	43.8	J	34.4	J	68.8	J
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-202		B-203		B-203		B-203		B-204		B-204		B-204		B-205		B-205		B-205	
			Field Sample ID	B202 s4		B203 s1		B203 s2		B203 s3		B204 s1		B204 s2		B204 s3		B205 s1		B205 s2		B205 s3	
			Sample Start Depth	11		0		4		7		0		4		7		0		4		7	
			Sample End Depth	12.5		3		7		11		3		7		11		3		7		11	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-202		B-203		B-203		B-203		B-204		B-204		B-204		B-205		B-205		B-205	
			Field Sample ID	B202 s4		B203 s1		B203 s2		B203 s3		B204 s1		B204 s2		B204 s3		B205 s1		B205 s2		B205 s3	
			Sample Start Depth	11		0		4		7		0		4		7		0		4		7	
			Sample End Depth	12.5		3		7		11		3		7		11		3		7		11	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Acenaphthene	83-32-9	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Anthracene	120-12-7	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.95		0.37	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.5	U	3.7	U	3.9	U	3.7	U	3.7	U	3.7	U	4.4		3.8	U	4.6		3.7	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	3.5	U	3.7	U	3.9	U	3.7	U	3.7	U	3.7	U	4.4		3.8	U	5.6		3.7	U
EPH	C19-C36 Aliphatics	NA	mg/kg	7.4		3.7	U	9.9		3.7	U	3.8		3.7	U	6.2		5		4.9		3.7	U
EPH	C9-C18 Aliphatics	NA	mg/kg	4.6		3.7	U	5		3.7	U	3.7	U	3.7	U	3.6	U	3.8	U	3.8	U	3.7	U
EPH	Chrysene	218-01-9	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Fluoranthene	206-44-0	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Fluorene	86-73-7	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Naphthalene	91-20-3	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Phenanthrene	85-01-8	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Pyrene	129-00-0	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Total EPH	NA	mg/kg	12		3.7	U	15		3.7	U	3.8		3.7	U	11		5		9.5		3.7	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-202		B-203		B-203		B-203		B-204		B-204		B-204		B-205		B-205		B-205	
			Field Sample ID	B202 s4		B203 s1		B203 s2		B203 s3		B204 s1		B204 s2		B204 s3		B205 s1		B205 s2		B205 s3	
			Sample Start Depth	11		0		4		7		0		4		7		0		4		7	
			Sample End Depth	12.5		3		7		11		3		7		11		3		7		11	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	15,700	J	19,000	J	21,700	J	22,700	J	10,400	J	13,700	J	10,900	J	15,200	J	12,900	J	7,550	J
Metals	Antimony	7440-36-0	mg/kg	1.1	UJ	1.1	UJ	1.2	UJ	0.44	J	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ
Metals	Arsenic	7440-38-2	mg/kg	38.4		90	J	51.7		155		16.1	J	35.2		35.8		33.6	J	28.8		32.5	
Metals	Barium	7440-39-3	mg/kg	93.4		70.5	J	143		142		61.3	J	56.5		60.8		53.8	J	52.7		54.5	
Metals	Beryllium	7440-41-7	mg/kg	0.48		0.81		0.53	J	0.49		0.48		0.51	J	0.38	B	0.61		0.59	J	0.3	B
Metals	Cadmium	7440-43-9	mg/kg	0.54	U	0.57	U	0.6	U	0.58	U	0.55	U	0.56	U	0.56	U	0.57	U	0.57	U	0.55	U
Metals	Calcium	7440-70-2	mg/kg	1,930		1,240		3,200		3,220		18,300		2,520		4,360		1,110		1,510		1,440	
Metals	Chromium	7440-47-3	mg/kg	923	J	415		762		672	J	35.6		55.2		115	J	57.3		88.9		143	J
Metals	Cobalt	7440-48-4	mg/kg	18.1		11.3	J	13.9		12.9		5.3	J	10.3		7.5		7.7	J	7		5	B
Metals	Copper	7440-50-8	mg/kg	275	J	217		738		513	J	20.2		101		198	J	14.9		35.8		127	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	132	J	12.5	J	23.8		69.2	J	0.44	UJ	2.2		2.2	J	0.46	UJ	0.55		2.3	J
Metals	Iron	7439-89-6	mg/kg	25,100	J	23,800		29,100		29,600	J	12,900		21,600		17,200	J	19,100		16,900		11,400	J
Metals	Lead	7439-92-1	mg/kg	10		16.4		5.2		4.4		64		5.4		58.4		48.3		55.7		5.4	
Metals	Magnesium	7439-95-4	mg/kg	12,300	J	11,700	J	15,400		15,100	J	5,450	J	10,200		8,080	J	7,980	J	6,790		4,010	J
Metals	Manganese	7439-96-5	mg/kg	378	J	467	J	309	J	401	J	191	J	269	J	288	J	213	J	234	J	208	J
Metals	Mercury	7439-97-6	mg/kg	0.035	U	0.031	B	0.039	U	0.038	U	0.062		0.037	U	0.054		0.047		0.015	B	0.037	U
Metals	Nickel	7440-02-0	mg/kg	70.5		47.1	J	57.8		57.9		23.6	J	39.6		34.7		34.5	J	28.6		23.8	
Metals	Potassium	7440-09-7	mg/kg	5,660	J	4,150	J	7,950	J	6,910	J	2,130	J	2,990	J	3,580	J	2,490	J	1,880	J	1,690	J
Metals	Selenium	7782-49-2	mg/kg	0.32	B	0.38	B	0.33	B	0.62		0.55	U	0.56	U	0.56	U	0.63		0.48	B	0.55	
Metals	Silver	7440-22-4	mg/kg	0.059	B	0.36	B	0.13	B	0.19	B	0.19	B	0.56	U	0.56	U	0.04	B	0.57	U	0.55	U
Metals	Sodium	7440-23-5	mg/kg	76.3	B	568	U	171	B	168	B	69.1	B	52.2	B	61.8	B	35.1	B	53.9	B	110	B
Metals	Thallium	7440-28-0	mg/kg	0.98	B	1.1	U	0.83	B	0.6	B	1.1	U	0.57	B	1.1	U	1.1	U	1.1	U	1.1	U
Metals	Vanadium	7440-62-2	mg/kg	41.3		40	J	60.5		67		21.8	J	37		28.7		34.3	J	29.9		16.4	
Metals	Zinc	7440-66-6	mg/kg	59.8	J	52.4	J	58.6	J	56.6	J	48.2	J	41.3	J	58	J	45.8	J	41.5	J	23.4	J
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-205		B-206		B-206		B-206		B-207		B-207		B-207		B-208		B-208		B-208	
			Field Sample ID	B205 s4		B206 s1		B206 s2		B206 s3		B207 s1		B207 s2		B207 s3		B208 s1		B208 s1 RE		B208 s2	
			Sample Start Depth	11		0		4		7		0		4		7		0		0		4	
			Sample End Depth	12		3		7		11		3		7		11		3		3		7	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-205		B-206		B-206		B-206		B-207		B-207		B-207		B-208		B-208		B-208	
			Field Sample ID	B205 s4		B206 s1		B206 s2		B206 s3		B207 s1		B207 s2		B207 s3		B208 s1		B208 s1 RE		B208 s2	
			Sample Start Depth	11		0		4		7		0		4		7		0		0		4	
			Sample End Depth	12		3		7		11		3		7		11		3		3		7	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Acenaphthene	83-32-9	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Anthracene	120-12-7	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.37	U	0.78		0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.37	U	0.64		0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.37	U	1		0.37	U	0.37	U	1	J	0.37	U	0.35	U			1.5	J	0.37	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.37	U	1.1		0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.7	U	44		3.7	U	9.6		29	J	3.7	U	3.5	U			12	J	3.7	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	3.7	U	52		3.7	U	11		31	J	3.7	U	3.5	U			13	J	3.7	U
EPH	C19-C36 Aliphatics	NA	mg/kg	14		22		3.7	U	3.7	U	11	J	3.7	U	3.5	U			5.8	J	3.7	U
EPH	C9-C18 Aliphatics	NA	mg/kg	5.9		4	U	3.7	U	3.7	U	11	J	3.7	U	3.5	U			4.6	UJ	3.7	U
EPH	Chrysene	218-01-9	mg/kg	0.37	U	0.85		0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Fluoranthene	206-44-0	mg/kg	0.37	U	1.7		0.37	U	0.41		0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.27	J
EPH	Fluorene	86-73-7	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Naphthalene	91-20-3	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.93	J	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Phenanthrene	85-01-8	mg/kg	0.37	U	0.53		0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Pyrene	129-00-0	mg/kg	0.37	U	2.1		0.37	U	0.55		0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Total EPH	NA	mg/kg	20		66		3.7	U	9.6		51	J	3.7	U	3.5	U			17	J	3.7	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-205		B-206		B-206		B-206		B-207		B-207		B-207		B-208		B-208		B-208	
			Field Sample ID	B205 s4		B206 s1		B206 s2		B206 s3		B207 s1		B207 s2		B207 s3		B208 s1		B208 s1 RE		B208 s2	
			Sample Start Depth	11		0		4		7		0		4		7		0		0		4	
			Sample End Depth	12		3		7		11		3		7		11		3		3		7	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	8,680	J	14,400	J	12,500	J	27,100	J	19,100	J	10,300	J	6,520	J	15,700	J			9,960	J
Metals	Antimony	7440-36-0	mg/kg	1.1	UJ	0.62	J	1	UJ	0.59	J	1.1	UJ	1.1	UJ	1.1	UJ	1.2	UJ			1.1	UJ
Metals	Arsenic	7440-38-2	mg/kg	43.3		36.3	J	57.2		132		32	J	91.2		82.7		41.3	J			38.4	
Metals	Barium	7440-39-3	mg/kg	69		237	J	145		261		125	J	66.8		37		79.6	J			47.8	
Metals	Beryllium	7440-41-7	mg/kg	0.31	B	0.6		0.35	BJ	0.64		0.63		0.4	BJ	0.26	B	0.72				0.46	J
Metals	Cadmium	7440-43-9	mg/kg	0.56	U	0.92		0.52	U	0.65	U	0.55	U	0.55	U	0.54	U	0.58	U			0.57	U
Metals	Calcium	7440-70-2	mg/kg	1,360		3,080		3,480		7,780		2,720		2,160		1,390		1,190				1,060	
Metals	Chromium	7440-47-3	mg/kg	106	J	48.8		51.5		129	J	103		51.4		51.1	J	251				70.8	
Metals	Cobalt	7440-48-4	mg/kg	5.3	B	8.3	J	7.2		15.5		8.2	J	7.7		5.6		8.5	J			6.3	
Metals	Copper	7440-50-8	mg/kg	127	J	29.6		49.4		281	J	217		119		93.7	J	297				111	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	10.1	J	0.48	UJ	2.8		0.52	UJ	0.44	UJ	5.6		5.9	J	0.46	UJ			3.5	
Metals	Iron	7439-89-6	mg/kg	13,000	J	19,100		15,500		32,000	J	21,300		16,400		11,100	J	18,400				13,100	
Metals	Lead	7439-92-1	mg/kg	4.2		11.1		3.8		54.2		15.4		4.1		5.5		105				6.6	
Metals	Magnesium	7439-95-4	mg/kg	5,310	J	8,100	J	6,590		14,400	J	9,010	J	7,150		4,450	J	6,140	J			5,110	
Metals	Manganese	7439-96-5	mg/kg	250	J	297	J	308	J	636	J	316	J	374	J	211	J	327	J			204	J
Metals	Mercury	7439-97-6	mg/kg	0.013	B	0.34		0.034	U	0.027	B	0.028	B	0.036	U	0.0088	B	0.14				0.0092	B
Metals	Nickel	7440-02-0	mg/kg	29.8		33.7	J	32.6		41.1		43.4	J	35		25.5		32.5	J			28.3	
Metals	Potassium	7440-09-7	mg/kg	2,820	J	2,360	J	4,470	J	9,930	J	5,800	J	3,220	J	1,380	J	1,400	J			1,340	J
Metals	Selenium	7782-49-2	mg/kg	0.56	U	0.58	B	0.52	U	0.47	B	0.59		0.55	U	0.54	U	0.94				0.53	B
Metals	Silver	7440-22-4	mg/kg	0.56	U	0.22	B	0.048	B	0.28	B	0.82		0.046	B	0.54	U	0.063	B			0.57	U
Metals	Sodium	7440-23-5	mg/kg	87	B	603	U	272	B	839		406	B	160	B	88.2	B	576	U			48.5	B
Metals	Thallium	7440-28-0	mg/kg	1.1	U	1.2	U	1	U	1.3	U	0.53	B	1.1	U	1.1	U	0.79	B			0.7	B
Metals	Vanadium	7440-62-2	mg/kg	20.1		31.4	J	34.2		84.8		37.3	J	25.8		16		29.4	J			19.2	
Metals	Zinc	7440-66-6	mg/kg	25.7	J	554	J	25.1	J	70.6	J	37.4	J	30.8	J	21.9	J	75.7	J			27.9	J
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-208		B-208		B-209		B-209		B-209		B-209		B-210		B-210		B-210		B-210	
			Field Sample ID	B208 s3		B208 s4		B209 s1		B209 s2		B209 s3		B209 s4		B210 s1		B210 s2		B210 s3		B210 s4	
			Sample Start Depth	7		11		0		4		7		11		0		4		7		11	
			Sample End Depth	11		14.5		3		7		11		13.5		3		7		11		15	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-208		B-208		B-209		B-209		B-209		B-209		B-210		B-210		B-210		B-210	
			Field Sample ID	B208 s3		B208 s4		B209 s1		B209 s2		B209 s3		B209 s4		B210 s1		B210 s2		B210 s3		B210 s4	
			Sample Start Depth	7		11		0		4		7		11		0		4		7		11	
			Sample End Depth	11		14.5		3		7		11		13.5		3		7		11		15	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Acenaphthene	83-32-9	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Anthracene	120-12-7	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.38	U	0.37	U	0.7		0.37	U	0.38	U	0.37	U	0.76	J	0.37	U	0.38	U	0.36	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.8	U	3.7	U	3.9		3.7	U	3.8	U	3.7	U	6.3	J	8.6		3.8	U	3.6	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	3.8	U	3.7	U	4.6		3.7	U	3.8	U	3.7	U	7	J	8.6		3.8	U	3.6	U
EPH	C19-C36 Aliphatics	NA	mg/kg	3.8	U	10		6.6		3.7	U	3.8	U	10		7.2	J	10		3.8	U	7.8	
EPH	C9-C18 Aliphatics	NA	mg/kg	3.8	U	7.1		3.7	U	3.7	U	3.8	U	4.3		4.4	UJ	3.7	U	3.8	U	4.5	
EPH	Chrysene	218-01-9	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Fluoranthene	206-44-0	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Fluorene	86-73-7	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Naphthalene	91-20-3	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Phenanthrene	85-01-8	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Pyrene	129-00-0	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Total EPH	NA	mg/kg	3.8	U	17		10		3.7	U	3.8	U	15		13	J	19		3.8	U	12	
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-208		B-208		B-209		B-209		B-209		B-209		B-210		B-210		B-210		B-210	
			Field Sample ID	B208 s3		B208 s4		B209 s1		B209 s2		B209 s3		B209 s4		B210 s1		B210 s2		B210 s3		B210 s4	
			Sample Start Depth	7		11		0		4		7		11		0		4		7		11	
			Sample End Depth	11		14.5		3		7		11		13.5		3		7		11		15	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	5,380	J	8,440	J	15,100	J	10,700	J	5,660	J	5,560	J	15,200	J	4,730	J	6,140	J	4,780	J
Metals	Antimony	7440-36-0	mg/kg	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.2	UJ	1.1	UJ	1.3	UJ	1.1	UJ	1.2	UJ	1.1	UJ
Metals	Arsenic	7440-38-2	mg/kg	22.7		18.2		31	J	57.2		15.5		15.2		52.8	J	15.9		15.6		15.9	
Metals	Barium	7440-39-3	mg/kg	29.3		50.4		48.3	J	44.5		28.7		25.7		44.7	J	20.8	B	29.3		24.6	
Metals	Beryllium	7440-41-7	mg/kg	0.27	B	0.43	B	0.75		0.51	J	0.27	B	0.27	B	0.71		0.31	BJ	0.33	B	0.28	B
Metals	Cadmium	7440-43-9	mg/kg	0.56	U	0.56	U	0.56	U	0.53	U	0.58	U	0.57	U	0.63	U	0.56	U	0.58	U	0.54	U
Metals	Calcium	7440-70-2	mg/kg	1,210		3,300		1,630		1,100		1,230		928		1,500		1,360		1,750		4,160	
Metals	Chromium	7440-47-3	mg/kg	23.5	J	60.7	J	87.1		77.7		29.7	J	27.2	J	352		20.3		85.5	J	70.1	J
Metals	Cobalt	7440-48-4	mg/kg	5	B	7.6		6.1	J	8.6		4.8	B	4	B	10.2	J	4.2	B	4.6	B	4.8	B
Metals	Copper	7440-50-8	mg/kg	78.8	J	39.6	J	12.1		116		70	J	59.6	J	13.3		8.3		8.9	J	8.9	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	2.4	J	5.2	J	0.44	UJ	5.7		2.6	J	1.5	J	4.4	J	2.4		5.1	J	6.2	J
Metals	Iron	7439-89-6	mg/kg	9,450	J	14,300	J	16,900		17,000		9,540	J	8,780	J	20,100		8,410		10,700	J	8,850	J
Metals	Lead	7439-92-1	mg/kg	3.9		5.7		14.1		10.9		3.9		3.4		9.2		4.9		4		3.6	
Metals	Magnesium	7439-95-4	mg/kg	3,080	J	5,420	J	5,060	J	6,630		3,600	J	3,100	J	7,700	J	2,310		3,040	J	3,210	J
Metals	Manganese	7439-96-5	mg/kg	211	J	311	J	243	J	244	J	176	J	162	J	352	J	172	J	130	J	175	J
Metals	Mercury	7439-97-6	mg/kg	0.037	U	0.0097	B	0.036	B	0.0093	B	0.038	U	0.038	U	0.04	B	0.037	U	0.039	U	0.035	U
Metals	Nickel	7440-02-0	mg/kg	21.1		33.1		26.7	J	36.8		20		17.4		37.3	J	18.1		21		18.2	
Metals	Potassium	7440-09-7	mg/kg	1,220	J	2,490	J	777	J	1,820	J	1,200	J	850	J	2,060	J	920	J	1,580	J	1,450	J
Metals	Selenium	7782-49-2	mg/kg	0.56	U	0.56	U	0.6		0.3	B	0.58	U	0.57	U	0.65		0.56	U	0.58	U	0.54	U
Metals	Silver	7440-22-4	mg/kg	0.56	U	0.56	U	0.036	B	0.53	U	0.58	U	0.57	U	0.63	U	0.56	U	0.58	U	0.54	U
Metals	Sodium	7440-23-5	mg/kg	81.7	B	102	B	20.8	B	528	U	75.6	B	57.9	B	19.9	B	67.4	B	92.3	B	69.4	B
Metals	Thallium	7440-28-0	mg/kg	1.1	U	1.1	U	1.1	U	1.1	U	1.2	U	1.1	U	0.61	B	1.1	U	1.2	U	1.1	U
Metals	Vanadium	7440-62-2	mg/kg	11.4		20.5		27.1	J	25.8		12		11.2		30.8	J	9.8		12.4		11.5	
Metals	Zinc	7440-66-6	mg/kg	19.8	J	36.2	J	40.8	J	35	J	19.1	J	16.9	J	34.8	J	17.4	J	22.5	J	19.2	J
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-211		B-211		B-211		B-211		B-212		B-212		B-212		B-212		B-213		B-213	
			Field Sample ID	B211 s1		B211 s2		B211 s3		B211 s4		B212s1		B212s2		B212s3		B212s4		B213s1		B213s2	
			Sample Start Depth	0		4		7		11		0		4		7		11		0		4	
			Sample End Depth	3		7		11		15		3		7		11		15		3		7	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-211		B-211		B-211		B-211		B-212		B-212		B-212		B-212		B-213		B-213	
			Field Sample ID	B211 s1		B211 s2		B211 s3		B211 s4		B212s1		B212s2		B212s3		B212s4		B213s1		B213s2	
			Sample Start Depth	0		4		7		11		0		4		7		11		0		4	
			Sample End Depth	3		7		11		15		3		7		11		15		3		7	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Acenaphthene	83-32-9	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Anthracene	120-12-7	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.8		0.37	U	0.37	U	0.36	U	0.34	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	C11-C22 Aromatics	NA	mg/kg	4.8		5.6		4.2	U	3.7	U	13		7		3.7	U	3.7	U	4.2		3.4	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	4.8		5.6		4.2	U	3.7	U	13		7.8		3.7	U	3.7	U	4.2		3.4	U
EPH	C19-C36 Aliphatics	NA	mg/kg	5.8		9.3		4.2	U	13		11		6.7		16		3.7	U	3.6	U	3.4	U
EPH	C9-C18 Aliphatics	NA	mg/kg	3.8	U	3.7	U	4.2	U	6.4		6.6	U	3.8	U	3.7	U	3.7	U	3.6	U	3.4	U
EPH	Chrysene	218-01-9	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Fluoranthene	206-44-0	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Fluorene	86-73-7	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Naphthalene	91-20-3	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Phenanthrene	85-01-8	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Pyrene	129-00-0	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Total EPH	NA	mg/kg	11		15		4.2	U	19		23		14		16		3.7	U	4.2		3.4	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-211		B-211		B-211		B-211		B-212		B-212		B-212		B-213		B-213	
			Field Sample ID	B211 s1		B211 s2		B211 s3		B211 s4		B212s1		B212s2		B212s3		B212s4		B213s1		B213s2	
			Sample Start Depth	0		4		7		11		0		4		7		11		0		4	
			Sample End Depth	3		7		11		15		3		7		11		15		3		7	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	12,500	J	7,860	J	8,160	J	6,980	J	12,600		10,400		6,890		15,400	J	7,940		8,900	
Metals	Antimony	7440-36-0	mg/kg	1.2	UJ	1.1	UJ	1.2	UJ	1.2	UJ	1.1	UJ	1.1	UJ	1.1	UJ	0.57	J	1.1	UJ	1.1	UJ
Metals	Arsenic	7440-38-2	mg/kg	25.3	J	29		14.5		22.7		32.3		36.3		37.9		118	J	28.4		23.7	
Metals	Barium	7440-39-3	mg/kg	41	J	28.6		46.1		40.5		45		34.9		33.1		66.3	J	33.8		33.5	
Metals	Beryllium	7440-41-7	mg/kg	0.6		0.38	BJ	0.42	B	0.36	B	0.52		0.47		0.33	B	0.61		0.42	B	0.35	B
Metals	Cadmium	7440-43-9	mg/kg	0.59	U	0.55	U	0.61	U	0.58	U	0.57	U	0.57	U	0.55	U	0.55	U	0.57	U	0.55	U
Metals	Calcium	7440-70-2	mg/kg	1,280		1,640		1,640		1,570		903		1,070		1,120		1,390		708		1,080	
Metals	Chromium	7440-47-3	mg/kg	38		26.3		61.6	J	26	J	45.3	J	41.4		305		407		39.5	J	106	
Metals	Cobalt	7440-48-4	mg/kg	7.3	J	6.4		5.2	B	4.7	B	7.7		6.7		6		14.6	J	6.9		6.8	
Metals	Copper	7440-50-8	mg/kg	10.8		11.3		10	J	9.9	J	18.3	J	486	J	44.5	J	613		17	J	79.5	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.47	UJ	0.47		1	J	0.46	UJ	0.46	UJ	0.45	UJ	0.44	UJ	0.44	UJ	0.56	J	2.9	J
Metals	Iron	7439-89-6	mg/kg	15,700		13,300		13,500	J	11,300	J	15,700		13,900		11,700		24,600		11,900		13,000	
Metals	Lead	7439-92-1	mg/kg	9.3		6.9		4.5		4.4		19		7.4		4.2		8.4		5.9		12.6	
Metals	Magnesium	7439-95-4	mg/kg	6,370	J	4,700		3,570	J	3,430	J	5,800		5,670		4,020		10,600	J	3,810		4,860	
Metals	Manganese	7439-96-5	mg/kg	165	J	151	J	162	J	195	J	174	J	198		256		550	J	287	J	187	
Metals	Mercury	7439-97-6	mg/kg	0.023	B	0.036	U	0.04	U	0.015	B	0.017	B	0.037	U	0.036	U	0.036	U	0.0098	B	0.036	U
Metals	Nickel	7440-02-0	mg/kg	31.8	J	26.6		18.6		21.9		30.7		27.4		31.2		66.4	J	26.7		27.1	
Metals	Potassium	7440-09-7	mg/kg	1,330	J	1,840	J	1,940	J	1,540	J	1,520	J	1,560	J	1,530	J	3,570	J	982	J	1,620	J
Metals	Selenium	7782-49-2	mg/kg	0.47	B	0.55	U	0.61	U	0.58	U	0.64		0.45	B	0.55	U	0.55	U	0.45	B	0.32	B
Metals	Silver	7440-22-4	mg/kg	0.59	U	0.55	U	0.61	U	0.58	U	0.066	B	0.57	U	0.55	U	0.083	B	0.57	U	0.23	B
Metals	Sodium	7440-23-5	mg/kg	145	B	98.7	B	89	B	86.8	B	74.5	B	108	B	66.2	B	93.5	B	60.6	B	37	B
Metals	Thallium	7440-28-0	mg/kg	1.2	U	1.1	U	1.2	U	1.2	U	1.1	U	0.6	B	1.1	U	0.62	B	1.1	U	1.1	U
Metals	Vanadium	7440-62-2	mg/kg	24.9	J	18.6		15.8		13.4		25.4		22.5		14.6		34.4	J	15.5		19	
Metals	Zinc	7440-66-6	mg/kg	30.2	J	26.7	J	28	J	26	J	39.8	J	30	J	26.5	J	46.4	J	29.1	J	29.2	J
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-213		B-213		B-214		B-214		B-214		B-214		B-215		B-215		B-215		B-216	
			Field Sample ID	B213s3		B213s4		B214s1		B214s2		B214s3		B214s4		B215s1		B215s2		B215s3		B216s1	
			Sample Start Depth	7		11		0		4		7		11		0		4		7		0	
			Sample End Depth	11		15		3		7		11		15		3		7		11		3	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-213		B-213		B-214		B-214		B-214		B-214		B-215		B-215		B-215		B-216	
			Field Sample ID	B213s3		B213s4		B214s1		B214s2		B214s3		B214s4		B215s1		B215s2		B215s3		B216s1	
			Sample Start Depth	7		11		0		4		7		11		0		4		7		0	
			Sample End Depth	11		15		3		7		11		15		3		7		11		3	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Acenaphthene	83-32-9	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Anthracene	120-12-7	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.6	U	3.7	U	3.6	U	4.5	U	3.8	U	3.7	U	4.2		19		3.6	U	3.9	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	3.6	U	3.7	U	3.6	U	4.5	U	3.8	U	3.7	U	4.2		19		3.6	U	3.9	U
EPH	C19-C36 Aliphatics	NA	mg/kg	5		3.7	U	3.6	U	4.5	U	4.8		3.7	U	5		21		3.6	U	3.9	U
EPH	C9-C18 Aliphatics	NA	mg/kg	3.6	U	3.7	U	3.6	U	4.5	U	3.8	U	3.7	U	3.8	U	3.7	U	3.6	U	3.9	U
EPH	Chrysene	218-01-9	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Fluoranthene	206-44-0	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Fluorene	86-73-7	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Naphthalene	91-20-3	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Phenanthrene	85-01-8	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Pyrene	129-00-0	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Total EPH	NA	mg/kg	5		3.7	U	3.6	U	4.5	U	4.8		3.7	U	9.2		39		3.6	U	3.9	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-213		B-213		B-214		B-214		B-214		B-214		B-215		B-215		B-215		B-216	
			Field Sample ID	B213s3		B213s4		B214s1		B214s2		B214s3		B214s4		B215s1		B215s2		B215s3		B216s1	
			Sample Start Depth	7		11		0		4		7		11		0		4		7		0	
			Sample End Depth	11		15		3		7		11		15		3		7		11		3	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	14,600		5,390	J	9,850		17,900		9,770		6,350	J	12,900		11,200		8,180		14,200	
Metals	Antimony	7440-36-0	mg/kg	0.5	J	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ
Metals	Arsenic	7440-38-2	mg/kg	34.2		19.9	J	28.5		34.4		20.8		20.2	J	31		36.4		28.5		37.5	
Metals	Barium	7440-39-3	mg/kg	64.8		22.8	J	32.9		99.5		41.7		24.6	J	41.7		51.7		64.5		51.4	
Metals	Beryllium	7440-41-7	mg/kg	0.58		0.31	B	0.45		0.68		0.4	B	0.37	B	0.52		0.48		0.31	B	0.56	
Metals	Cadmium	7440-43-9	mg/kg	0.56	U	0.54	U	0.55	U	0.57	U	0.57	U	0.57	U	0.56	U	0.55	U	0.56	U	0.57	U
Metals	Calcium	7440-70-2	mg/kg	1,350		920		817		1,850		1,550		1,520		822		3,500		1,480		620	
Metals	Chromium	7440-47-3	mg/kg	691		267		99.2	J	113		65.8		76.3		119	J	69.2		114		70.8	J
Metals	Cobalt	7440-48-4	mg/kg	8.7		4	J	6.2		10.7		6.6		6.6	J	7.7		8.2		5.9		9.4	
Metals	Copper	7440-50-8	mg/kg	287	J	193		34.9	J	96.2	J	167	J	62.8		131	J	143	J	156	J	17.7	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.56	J	3.2	J	3.7	J	18.8	J	3.3	J	2.8	J	1.9	J	3.2	J	10.7	J	2.6	J
Metals	Iron	7439-89-6	mg/kg	21,900		9,270		13,400		23,800		15,000		12,600		17,900		16,800		11,800		17,500	
Metals	Lead	7439-92-1	mg/kg	18.3		5.4		15.4		8.4		5.1		7.3		15.1		10		5.8		7.9	
Metals	Magnesium	7439-95-4	mg/kg	8,270		3,110	J	4,900		9,490		5,850		4,380	J	7,320		7,200		5,930		7,360	
Metals	Manganese	7439-96-5	mg/kg	252		88.9	J	231	J	406		217		348	J	265	J	327		274		380	J
Metals	Mercury	7439-97-6	mg/kg	0.037	U	0.011	B	0.036	U	0.037	U	0.038	U	0.038	U	0.037	U	0.014	B	0.037	U	0.038	U
Metals	Nickel	7440-02-0	mg/kg	40.6		23.5	J	23.2		48.9		27.8		26.1	J	34.9		33.4		25.2		39.2	
Metals	Potassium	7440-09-7	mg/kg	3,970	J	1,010	J	1,230	J	4,840	J	2,610	J	1,090	J	2,070	J	2,720	J	2,850	J	2,400	J
Metals	Selenium	7782-49-2	mg/kg	0.56	U	0.56		0.45	B	0.57	U	0.57	U	0.47	B	0.33	B	0.33	B	0.31	B	0.57	U
Metals	Silver	7440-22-4	mg/kg	0.066	B	0.54	U	0.28	B	0.57	U	0.57	U	0.57	U	0.56	U	0.039	B	0.56	U	0.039	B
Metals	Sodium	7440-23-5	mg/kg	33.6	B	50.4	B	42.8	B	52.6	B	87.5	B	95.3	B	47	B	47.9	B	58.8	B	27	B
Metals	Thallium	7440-28-0	mg/kg	0.63	B	0.53	B	1.1	U	0.73	B	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
Metals	Vanadium	7440-62-2	mg/kg	30.8		11	J	20.7		37		21		15.9	J	26.3		26.3		16.9		27.6	
Metals	Zinc	7440-66-6	mg/kg	43	J	21.1	J	27.2	J	49.2	J	30.4	J	23.8	J	36.2	J	37.2	J	26.2	J	33.5	J
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-216		B-216		B-216		B-217		B-217		B-217		B-217		B-218		B-218		B-218	
			Field Sample ID	B216s2		B216s3		B216s4		B217s1		B217s2		B217s3		B217s4		B218s1		B218s2		B218s3	
			Sample Start Depth	4		7		11		0		4		7		11		0		4		7	
			Sample End Depth	7		11		13		3		7		11		15		3		7		11	
			Sample Date	11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-216		B-216		B-216		B-217		B-217		B-217		B-217		B-218		B-218		B-218	
			Field Sample ID	B216s2		B216s3		B216s4		B217s1		B217s2		B217s3		B217s4		B218s1		B218s2		B218s3	
			Sample Start Depth	4		7		11		0		4		7		11		0		4		7	
			Sample End Depth	7		11		13		3		7		11		15		3		7		11	
			Sample Date	11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Acenaphthene	83-32-9	mg/kg	0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Anthracene	120-12-7	mg/kg	0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	C11-C22 Aromatics	NA	mg/kg	5.8		3.8	U	3.6	U	3.8	U	4		3.8	U	3.8	U	6.3		3.7		3.7	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	5.8		3.8	U	3.6	U	3.8	U	4		3.8	U	3.8	U	6.3		3.7		3.7	U
EPH	C19-C36 Aliphatics	NA	mg/kg	9.7		3.8	U	3.6	U	3.8	U	3.7	U	3.8	U	3.8	U	4		3.4	U	3.8	
EPH	C9-C18 Aliphatics	NA	mg/kg	3.7	U	3.8	U	3.6	U	3.8	U	3.7	U	3.8	U	3.8	U	3.8	U	3.4	U	3.7	U
EPH	Chrysene	218-01-9	mg/kg	0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Fluoranthene	206-44-0	mg/kg	0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Fluorene	86-73-7	mg/kg	0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Naphthalene	91-20-3	mg/kg	0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Phenanthrene	85-01-8	mg/kg	0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Pyrene	129-00-0	mg/kg	0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Total EPH	NA	mg/kg	15		3.8	U	3.6	U	3.8	U	4		3.8	U	3.8	U	10		3.7		3.8	
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-216		B-216		B-216		B-217		B-217		B-217		B-217		B-218		B-218		B-218	
			Field Sample ID	B216s2		B216s3		B216s4		B217s1		B217s2		B217s3		B217s4		B218s1		B218s2		B218s3	
			Sample Start Depth	4		7		11		0		4		7		11		0		4		7	
			Sample End Depth	7		11		13		3		7		11		15		3		7		11	
			Sample Date	11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	14,700		8,780		5,810	J	12,100		17,200		16,800		14,800	J	14,200		4,850		17,600	
Metals	Antimony	7440-36-0	mg/kg	1.1	UJ	1.1	UJ	1.2	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.2	UJ	1	UJ	0.4	J
Metals	Arsenic	7440-38-2	mg/kg	33.5		51.6		25.6	J	27.3		42.8		30.1		111	J	60.9		17.4		35.1	
Metals	Barium	7440-39-3	mg/kg	49.1		42		27.7	J	47.1		73.3		74.7		106	J	48		17.2	B	99.2	
Metals	Beryllium	7440-41-7	mg/kg	0.58		0.37	B	0.33	B	0.51		0.59		0.61		0.69		0.53		0.27	B	0.7	
Metals	Cadmium	7440-43-9	mg/kg	0.57	U	0.53	U	0.59	U	0.56	U	0.57	U	0.57	U	0.57	U	0.58	U	0.52	U	0.59	U
Metals	Calcium	7440-70-2	mg/kg	724		1,590		1,610		900		2,000		1,670		2,150		1,420		1,830		1,860	
Metals	Chromium	7440-47-3	mg/kg	116		317		36.3		52.9	J	197		171		532		156	J	29.5		83.9	
Metals	Cobalt	7440-48-4	mg/kg	9		6.8		4.6	J	7.3		13.6		9.3		10.3	J	8.5		4.3	B	12	
Metals	Copper	7440-50-8	mg/kg	104	J	361	J	98.7		22.2	J	444	J	373	J	757		56.7	J	13.3	J	86.4	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	6.2	J	22.9	J	3.1	J	2.7	J	10.4	J	6.8	J	41.3	J	2.7	J	0.42	UJ	8.2	J
Metals	Iron	7439-89-6	mg/kg	18,500		13,200		9,370		15,400		24,500		22,900		20,800		18,500		9,190		24,800	
Metals	Lead	7439-92-1	mg/kg	8.1		10.1		5.5		16.2		9.9		7.6		12.3		17.9		5.9		9.2	
Metals	Magnesium	7439-95-4	mg/kg	7,650		6,260		3,830	J	6,320		10,500		9,620		7,960	J	7,390		3,140		10,800	
Metals	Manganese	7439-96-5	mg/kg	261		243		191	J	255	J	425		206		501	J	275	J	142		644	
Metals	Mercury	7439-97-6	mg/kg	0.037	U	0.035	U	0.039	U	0.024	B	0.038	U	0.037	U	0.038	U	0.014	B	0.034	U	0.039	U
Metals	Nickel	7440-02-0	mg/kg	36.6		34.7		18.7	J	29		49.6		42		62.6	J	35.5		16.8		50.2	
Metals	Potassium	7440-09-7	mg/kg	2,780	J	1,930	J	1,250	J	1,380	J	5,080	J	5,190	J	3,270	J	2,050	J	995	J	6,140	J
Metals	Selenium	7782-49-2	mg/kg	0.57	U	0.53	U	0.59	U	0.56	U	0.53	B	0.39	B	0.57	U	0.37	B	0.31	B	0.51	B
Metals	Silver	7440-22-4	mg/kg	0.57	U	0.53	U	0.59	U	0.56	U	0.57	U	0.068	B	0.57	U	0.22	B	0.52	U	0.11	B
Metals	Sodium	7440-23-5	mg/kg	45.9	B	45	B	77.5	B	87.9	B	65.5	B	61	B	86.9	B	25	B	19.4	B	593	U
Metals	Thallium	7440-28-0	mg/kg	0.52	B	1.1	U	1.2	U	1.1	U	1.1	U	0.61	B	0.66	B	1.2	U	1	U	0.55	B
Metals	Vanadium	7440-62-2	mg/kg	27.1		15		11.4	J	23.7		39.7		36.5		24.4	J	31.3		11.9		40.8	
Metals	Zinc	7440-66-6	mg/kg	37.2	J	33.6	J	17.8	J	48.6	J	49.9	J	48.4	J	51.9	J	38.3	J	21.8	J	53.1	J
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-218		B-219		B-219		B-219		B-21B		B-21B		B-22		B-22		B-220		B-220	
			Field Sample ID	B218s4		B219s1		B219s2		B219s3		C062204-B21B-14-14.5		C062204-B21B-8-10		C062204-B22-2-3		C062204-B22-9-10		B220s1		B220s2	
			Sample Start Depth	11		0		4		7		14		8		2		9		0		4	
			Sample End Depth	15		3		7		11		14.5		10		3		10		3		7	
			Sample Date	11/11/2005		11/11/2005		11/11/2005		11/11/2005		6/22/2004		6/22/2004		6/22/2004		6/22/2004		11/11/2005		11/11/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg									0.0024	U	0.0064		0.0031	U	0.0026	U				
VOCs	1,4-Dioxane	123-91-1	mg/kg									0.24	U	0.23	U	0.31	U	0.26	U				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	2-Chlorotoluene	95-49-8	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	2-Hexanone	591-78-6	mg/kg									0.019	U	0.018	U	0.025	U	0.021	U				
VOCs	4-Chlorotoluene	106-43-4	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg									0.019	U	0.018	U	0.025	U	0.021	U				
VOCs	Acetone	67-64-1	mg/kg									0.048	U	0.046	U	0.071		0.052	U				
VOCs	Benzene	71-43-2	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Bromobenzene	108-86-1	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Bromoform	75-25-2	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Bromomethane	74-83-9	mg/kg									0.0048	U	0.0046	U	0.0063	U	0.0052	U				
VOCs	Carbon disulfide	75-15-0	mg/kg									0.048	U	0.046	U	0.063	U	0.052	U				
VOCs	Carbon tetrachloride	56-23-5	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Chlorobenzene	108-90-7	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Chlorobromomethane	74-97-5	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Chlorodibromomethane	124-48-1	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Chloroethane	75-00-3	mg/kg									0.0048	U	0.0046	U	0.0063	U	0.0052	U				
VOCs	Chloroform	67-66-3	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Chloromethane	74-87-3	mg/kg									0.0048	U	0.0046	U	0.0063	U	0.0052	U				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Dibromomethane	74-95-3	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Dichlorobromomethane	75-27-4	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	DIETHYL ETHER	60-29-7	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Ethylbenzene	100-41-4	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	m&p-Xylenes	NA	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg									0.019	U	0.018	U	0.025	U	0.021	U				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg									0.0048	U	0.0046	U	0.0063	U	0.0052	U				
VOCs	Methylene Chloride	75-09-2	mg/kg									0.0048	U	0.0046	U	0.0063	U	0.0052	U				
VOCs	n-Butylbenzene	104-51-8	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	N-Propylbenzene	103-65-1	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Naphthalene	91-20-3	mg/kg									0.024	U	0.023	U	0.031	U	0.026	U				
VOCs	o-Xylene	95-47-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	sec-Butylbenzene	135-98-8	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Styrene	100-42-5	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	tert-Butylbenzene	98-06-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Tetrachloroethene	127-18-4	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Tetrahydrofuran	109-99-9	mg/kg									0.0048	U	0.0046	U	0.0063	U	0.0052	U				
VOCs	Toluene	108-88-3	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Trichloroethene	79-01-6	mg/kg									0.0024	U	0.0023	U	0.021		0.0026	U				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Vinyl chloride	75-01-4	mg/kg									0.0048	U	0.0046	U	0.0063	U	0.0052	U				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg											0.38	U	0.4	U						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg											0.38	U	0.4	U						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg											0.38	U	0.4	U						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg											0.38	U	0.4	U						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg											0.38	U	0.4	U						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg											0.38	U	0.4	U						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg											0.38	U	0.4	U						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg											0.38	U	0.4	U						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg											0.38	U	0.4	U						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg											0.38	U	0.4	U						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg											0.38	U	0.4	U						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg											0.38	U	0.4	U						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg											0.38	U	0.4	U						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg											2.4		0.2	U						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg											0.38	U	0.4	U						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-218		B-219		B-219		B-219		B-21B		B-21B		B-22		B-22		B-220		B-220	
			Field Sample ID	B218s4		B219s1		B219s2		B219s3		C062204-B21B-14-14.5		C062204-B21B-8-10		C062204-B22-2-3		C062204-B22-9-10		B220s1		B220s2	
			Sample Start Depth	11		0		4		7		14		8		2		9		0		4	
			Sample End Depth	15		3		7		11		14.5		10		3		10		3		7	
			Sample Date	11/11/2005		11/11/2005		11/11/2005		11/11/2005		6/22/2004		6/22/2004		6/22/2004		6/22/2004		11/11/2005		11/11/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg											0.38	U	0.4	U						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg											0.38	U	0.4	U						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg											0.76	U	0.8	U						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg											0.38	U	0.4	U						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg											0.76	U	0.8	U						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg											1.9	U	2	U						
SVOCs	Acenaphthene	83-32-9	mg/kg											2.3		0.2	U						
SVOCs	Acenaphthylene	208-96-8	mg/kg											0.5		0.2	U						
SVOCs	Acetophenone	98-86-2	mg/kg											0.38	U	0.4	U						
SVOCs	Aniline	62-53-3	mg/kg											1.9	U	2	U						
SVOCs	Anthracene	120-12-7	mg/kg											1.5		0.2	U						
SVOCs	Azobenzene	103-33-3	mg/kg											0.38	U	0.4	U						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg											1.1		0.2	U						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg											0.75		0.2	U						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg											0.35		0.2	U						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg											0.5		0.2	U						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg											0.56		0.2	U						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg											0.38	U	0.4	U						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg											0.38	U	0.4	U						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg											0.38	U	0.4	U						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg											0.38	U	0.4	U						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg											0.38	U	0.4	U						
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg											0.95		0.2	U						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg											0.38	U	0.4	U						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg											0.38	U	0.4	U						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg											0.19	J	0.2	U						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg											0.28	J	0.4	U						
SVOCs	Diethyl phthalate	84-66-2	mg/kg											0.38	U	0.4	U						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg											0.38	U	0.4	U						
SVOCs	Fluoranthene	206-44-0	mg/kg											1.8		0.15	J						
SVOCs	Fluorene	86-73-7	mg/kg											1.4		0.2	U						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg											0.38	U	0.4	U						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg											0.38	U	0.4	U						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg											0.38	U	0.4	U						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg											0.35		0.2	U						
SVOCs	ISOPHORONE	78-59-1	mg/kg											0.38	U	0.4	U						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg											2.9		0.2	U						
SVOCs	NITROBENZENE	98-95-3	mg/kg											0.38	U	0.4	U						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg											1.9	U	2	U						
SVOCs	Phenanthrene	85-01-8	mg/kg											4.9		0.2	U						
SVOCs	PHENOL	108-95-2	mg/kg											0.38	U	0.4	U						
SVOCs	Pyrene	129-00-0	mg/kg											2.8		0.18	J						
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Acenaphthene	83-32-9	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Anthracene	120-12-7	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.7	U	6.8		3.7	U	3.6	U			5.7		10				3.6	U	3.9	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	3.7	U	6.8		3.7	U	3.6	U									3.6	U	3.9	U
EPH	C19-C36 Aliphatics	NA	mg/kg	3.7	U	9.1		3.7	U	3.6	U			3.7	U	6				3.6	U	3.9	U
EPH	C9-C18 Aliphatics	NA	mg/kg	3.7	U	3.9	U	3.7	U	3.6	U			3.7	U	3.9	U			3.6	U	3.9	U
EPH	Chrysene	218-01-9	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Fluoranthene	206-44-0	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Fluorene	86-73-7	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Naphthalene	91-20-3	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Phenanthrene	85-01-8	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Pyrene	129-00-0	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Total EPH	NA	mg/kg	3.7	U	16		3.7	U	3.6	U			5.7		16				3.6	U	3.9	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-218		B-219		B-219		B-219		B-21B		B-21B		B-22		B-22		B-220		B-220	
			Field Sample ID	B218s4		B219s1		B219s2		B219s3		C062204-B21B-14-14.5		C062204-B21B-8-10		C062204-B22-2-3		C062204-B22-9-10		B220s1		B220s2	
			Sample Start Depth	11		0		4		7		14		8		2		9		0		4	
			Sample End Depth	15		3		7		11		14.5		10		3		10		3		7	
			Sample Date	11/11/2005		11/11/2005		11/11/2005		11/11/2005		6/22/2004		6/22/2004		6/22/2004		6/22/2004		11/11/2005		11/11/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	9,410	J	10,600		11,100		12,000				12,000		15,000				11,200		15,800	
Metals	Antimony	7440-36-0	mg/kg	1.1	UJ	1.1	UJ	1.1	UJ	0.41	J			2.4	U	2.4	U			1.1	UJ	1.1	UJ
Metals	Arsenic	7440-38-2	mg/kg	40.8	J	25.2		41.4		36.6				20		25				24.1		22.4	
Metals	Barium	7440-39-3	mg/kg	51.2	J	37.7		34.6		55.8				53		74				44.9		66.4	
Metals	Beryllium	7440-41-7	mg/kg	0.46		0.47		0.38	B	0.46				0.33		0.43				0.47		0.61	
Metals	Cadmium	7440-43-9	mg/kg	0.55	U	0.55	U	0.56	U	0.55	U			0.24	U	0.24	U			0.56	U	0.57	U
Metals	Calcium	7440-70-2	mg/kg	2,090		1,090		822		838				1,600		1,900				1,160		1,390	
Metals	Chromium	7440-47-3	mg/kg	307		47.9	J	735		1040				41		95				40.2	J	38.8	
Metals	Cobalt	7440-48-4	mg/kg	6.9	J	5.9		6.4		8.8				7.9		8.9				6.3		10	
Metals	Copper	7440-50-8	mg/kg	343		19.7	J	55.5	J	140	J			14		42				11.7	J	16.5	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	48.7	J	0.44	UJ	42.6	J	82.8	J			0.54		2.2	U			0.45	UJ	0.46	UJ
Metals	Iron	7439-89-6	mg/kg	15,700		12,900		16,600		18,000				17,000		20,000				14,900		19,300	
Metals	Lead	7439-92-1	mg/kg	9.5		23.5		20.5		26.8				6.3		96				5.9		6.9	
Metals	Magnesium	7439-95-4	mg/kg	6,530	J	4,510		5,890		6,520				6,600		8,200				5,980		8,090	
Metals	Manganese	7439-96-5	mg/kg	330	J	194	J	201		411				400		260				240	J	276	
Metals	Mercury	7439-97-6	mg/kg	0.036	U	0.11		0.037	U	0.036	U			0.094	U	0.16				0.011	B	0.038	U
Metals	Nickel	7440-02-0	mg/kg	33	J	23.6		29.2		29.3				35		37				27.8		36.6	
Metals	Potassium	7440-09-7	mg/kg	3,250	J	1,010	J	1,370	J	2,700	J			3,100		1,900				1,680	J	2,780	J
Metals	Selenium	7782-49-2	mg/kg	0.55	U	0.38	B	0.56	U	0.55	U			1.2	U	1.2	U			0.56	U	0.31	B
Metals	Silver	7440-22-4	mg/kg	0.55	U	0.11	B	0.034	B	0.55	U			1.2	U	1.2	U			0.56	U	0.57	U
Metals	Sodium	7440-23-5	mg/kg	51.2	B	553	U	556	U	23.3	B			190		150				24.6	B	45	B
Metals	Thallium	7440-28-0	mg/kg	0.74	B	1.1	U	1.1	U	0.6	B			1.2	U	1.2	U			1.1	U	1.1	U
Metals	Vanadium	7440-62-2	mg/kg	19.4	J	19.1		22.5		20.9				23		32				22.1		35.6	
Metals	Zinc	7440-66-6	mg/kg	35.5	J	36.9	J	29.6	J	35.3	J			38		89				28.1	J	39.8	J
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg											0.04	J								
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg											0.02	J								
TIC	1-Methyl-Pyrene	NA	mg/kg											0.03	J								
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg											0.02	J								
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg											0.02	J								
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg											0.02	J								
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg											0.02	J								
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-220		B-220		B-225		B-226		B-227		B-228		B-229		B-230		B-231		B-232	
			Field Sample ID	B220s3		B220s4		C012407-B225		C012407-B226		C012407-B227		C012407-B228		C012407-B229		C012407-B230		C012407-B231		C042407-B232 S1	
			Sample Start Depth	7		11		0		0		0		0		0		0		0		4	
			Sample End Depth	11		15		5		12		12		12		12		12		5		6	
			Sample Date	11/11/2005		11/11/2005		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		4/24/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																			0.13	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																			0.13	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																			0.13	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																			0.13	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																			0.13	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																			0.13	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																			0.13	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																			0.13	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																			0.13	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																			0.13	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																			0.29	
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																			0.13	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																			0.13	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																			0.13	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																			0.13	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																			0.13	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																			0.16	
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																			0.13	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																			0.13	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																			0.13	U
VOCs	1,4-Dioxane	123-91-1	mg/kg																			13	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																			0.13	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg																			0.13	U
VOCs	2-Hexanone	591-78-6	mg/kg																			1	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg																			0.13	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																			0.13	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																			1	U
VOCs	Acetone	67-64-1	mg/kg																			13	U
VOCs	Benzene	71-43-2	mg/kg																			0.13	U
VOCs	Bromobenzene	108-86-1	mg/kg																			0.13	U
VOCs	Bromoform	75-25-2	mg/kg																			0.13	U
VOCs	Bromomethane	74-83-9	mg/kg																			0.25	U
VOCs	Carbon disulfide	75-15-0	mg/kg																			0.13	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg																			0.13	U
VOCs	Chlorobenzene	108-90-7	mg/kg																			0.13	U
VOCs	Chlorobromomethane	74-97-5	mg/kg																			0.13	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg																			0.13	U
VOCs	Chloroethane	75-00-3	mg/kg																			0.25	U
VOCs	Chloroform	67-66-3	mg/kg																			0.13	U
VOCs	Chloromethane	74-87-3	mg/kg																			0.25	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																			0.31	
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																			0.13	U
VOCs	Dibromomethane	74-95-3	mg/kg																			0.13	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg																			0.13	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																			0.25	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg																			0.13	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																			0.13	U
VOCs	Ethylbenzene	100-41-4	mg/kg																			290	
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																			0.13	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																			0.13	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																			1.7	
VOCs	m&p-Xylenes	NA	mg/kg																			1,400	
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																			1	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																			0.13	U
VOCs	Methylene Chloride	75-09-2	mg/kg																			0.25	U
VOCs	n-Butylbenzene	104-51-8	mg/kg																			0.067	J
VOCs	N-Propylbenzene	103-65-1	mg/kg																			0.51	
VOCs	Naphthalene	91-20-3	mg/kg																			0.24	J
VOCs	o-Xylene	95-47-6	mg/kg																			310	
VOCs	sec-Butylbenzene	135-98-8	mg/kg																			0.13	U
VOCs	Styrene	100-42-5	mg/kg																			0.13	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																			0.13	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg																			0.13	U
VOCs	Tetrachloroethene	127-18-4	mg/kg																			0.12	J
VOCs	Tetrahydrofuran	109-99-9	mg/kg																			1	U
VOCs	Toluene	108-88-3	mg/kg																			130	
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																			0.13	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																			0.13	U
VOCs	Trichloroethene	79-01-6	mg/kg																			23	
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																			0.13	U
VOCs	Vinyl chloride	75-01-4	mg/kg																			0.25	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-220		B-220		B-225		B-226		B-227		B-228		B-229		B-230		B-231		B-232	
			Field Sample ID	B220s3		B220s4		C012407-B225		C012407-B226		C012407-B227		C012407-B228		C012407-B229		C012407-B230		C012407-B231		C042407-B232 S1	
			Sample Start Depth	7		11		0		0		0		0		0		0		0		4	
			Sample End Depth	11		15		5		12		12		12		12		12		5		6	
			Sample Date	11/11/2005		11/11/2005		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		4/24/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
PCBs	Aroclor 1221	11104-28-2	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
PCBs	Aroclor 1232	11141-16-5	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
PCBs	Aroclor 1242	53469-21-9	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
PCBs	Aroclor 1248	12672-29-6	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
PCBs	Aroclor 1254	11097-69-1	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
PCBs	Aroclor 1260	11096-82-5	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
PCBs	PCB-1262	37324-23-5	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
PCBs	PCB-1268	11100-14-4	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.38	U	0.38	U																
EPH	Acenaphthene	83-32-9	mg/kg	0.38	U	0.38	U																
EPH	Acenaphthylene	208-96-8	mg/kg	0.38	U	0.38	U																
EPH	Anthracene	120-12-7	mg/kg	0.38	U	0.38	U																
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.38	U	0.38	U																
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.38	U	0.38	U																
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.38	U	0.38	U																
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.38	U	0.38	U																
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.38	U	0.38	U																
EPH	C11-C22 Aromatics	NA	mg/kg	4.8		5.5																	
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	4.8		5.5																	
EPH	C19-C36 Aliphatics	NA	mg/kg	6.6		9.3																	
EPH	C9-C18 Aliphatics	NA	mg/kg	4.1		3.8	U																
EPH	Chrysene	218-01-9	mg/kg	0.38	U	0.38	U																
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.38	U	0.38	U																
EPH	Fluoranthene	206-44-0	mg/kg	0.38	U	0.38	U																
EPH	Fluorene	86-73-7	mg/kg	0.38	U	0.38	U																
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.38	U	0.38	U																
EPH	Naphthalene	91-20-3	mg/kg	0.38	U	0.38	U																
EPH	Phenanthrene	85-01-8	mg/kg	0.38	U	0.38	U																
EPH	Pyrene	129-00-0	mg/kg	0.38	U	0.38	U																
EPH	Total EPH	NA	mg/kg	15		15																	
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-220		B-220		B-225		B-226		B-227		B-228		B-229		B-230		B-231		B-232	
			Field Sample ID	B220s3		B220s4		C012407-B225		C012407-B226		C012407-B227		C012407-B228		C012407-B229		C012407-B230		C012407-B231		C042407-B232 S1	
			Sample Start Depth	7		11		0		0		0		0		0		0		0		4	
			Sample End Depth	11		15		5		12		12		12		12		12		5		6	
			Sample Date	11/11/2005		11/11/2005		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		4/24/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	10,600		10,400	J																
Metals	Antimony	7440-36-0	mg/kg	1.1	UJ	1.2	UJ																
Metals	Arsenic	7440-38-2	mg/kg	22.5		11.6	J																
Metals	Barium	7440-39-3	mg/kg	43.6		41.5	J																
Metals	Beryllium	7440-41-7	mg/kg	0.49		0.58																	
Metals	Cadmium	7440-43-9	mg/kg	0.57	U	0.59	U																
Metals	Calcium	7440-70-2	mg/kg	1,190		1,390																	
Metals	Chromium	7440-47-3	mg/kg	27.5		22.9																	
Metals	Cobalt	7440-48-4	mg/kg	6.3		5.5	J																
Metals	Copper	7440-50-8	mg/kg	12.5	J	12																	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.46	UJ	0.47	UJ																
Metals	Iron	7439-89-6	mg/kg	14,000		13,300																	
Metals	Lead	7439-92-1	mg/kg	5.7		5.3																	
Metals	Magnesium	7439-95-4	mg/kg	5,130		4,450	J																
Metals	Manganese	7439-96-5	mg/kg	249		223	J																
Metals	Mercury	7439-97-6	mg/kg	0.038	U	0.039	U																
Metals	Nickel	7440-02-0	mg/kg	28.4		25	J																
Metals	Potassium	7440-09-7	mg/kg	1,740	J	1,550	J																
Metals	Selenium	7782-49-2	mg/kg	0.57	U	0.37	B																
Metals	Silver	7440-22-4	mg/kg	0.57	U	0.59	U																
Metals	Sodium	7440-23-5	mg/kg	42.9	B	61.6	B																
Metals	Thallium	7440-28-0	mg/kg	1.1	U	1.2	U																
Metals	Vanadium	7440-62-2	mg/kg	19.2		16.2	J																
Metals	Zinc	7440-66-6	mg/kg	30.1	J	29.9	J																
Cyanide	Cyanide, Reactive	NA	mg/kg					58	U	58	U	57	U	56	U	57	U	56	U	56	U		
Other	Sulfide, Reactive	NA	mg/kg					120	U	120	U	110	U	110	U	110	U	110	U	110	U		
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																			3.4	JN
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																			1.7	JN
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																			3	JN
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																			1.1	JN
TIC	Pentane, 3-methyl-	NA	mg/kg																			1.6	JN
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-232		B-232		B-232		B-233		B-233		B-233		B-233		B-234		B-235		B-236	
			Field Sample ID	C042407-B232 S2		C042407-B232 S3		C042407-B232 S4		C042407-B233 S1		C042407-B233 S2		C042407-B233 S3		C042407-B233 S4		C042407-B234		C042407-B235		C042407-B236	
			Sample Start Depth	6		8		10		4		6		8		10		0		0		0	
			Sample End Depth	8		10		12		6		8		10		12		4		4		4	
			Sample Date	4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.13	U	0.6		0.11	U	0.39		0.12	U	0.11	U	1.4							
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.17		0.12	U	0.13		0.11	U	0.12	U	0.11	U	0.066	J						
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.094	J	0.12	U	0.081	J	0.11	U	0.12	U	0.11	U	0.052	J						
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,4-Dioxane	123-91-1	mg/kg	13	U	12	U	11	U	11	U	12	U	11	U	12	U						
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	2-Hexanone	591-78-6	mg/kg	1	U	0.94	U	0.87	U	0.92	U	0.97	U	0.9	U	0.96	U						
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	1	U	0.94	U	0.87	U	0.92	U	0.97	U	0.9	U	0.96	U						
VOCs	Acetone	67-64-1	mg/kg	13	U	12	UJ	11	U	11	UJ	12	U	11	U	12	UJ						
VOCs	Benzene	71-43-2	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Bromobenzene	108-86-1	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Bromoform	75-25-2	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Bromomethane	74-83-9	mg/kg	0.25	U	0.24	U	0.22	U	0.23	U	0.24	U	0.23	U	0.24	U						
VOCs	Carbon disulfide	75-15-0	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Chlorobenzene	108-90-7	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Chloroethane	75-00-3	mg/kg	0.25	U	0.24	U	0.22	U	0.23	U	0.24	U	0.23	U	0.24	U						
VOCs	Chloroform	67-66-3	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Chloromethane	74-87-3	mg/kg	0.25	U	0.24	U	0.22	U	0.23	U	0.24	U	0.23	U	0.24	U						
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.69		0.057	J	0.07	J	0.11	U	0.12	U	4.3		0.12	U						
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Dibromomethane	74-95-3	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.25	U	0.24	U	0.22	U	0.23	U	0.24	U	0.23	U	0.24	U						
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Ethylbenzene	100-41-4	mg/kg	83		1.3		130		0.11	U	4.3		9.1		6.9							
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.53		0.12	U	0.86		0.11	U	0.12	J	0.11	U	0.3							
VOCs	m&p-Xylenes	NA	mg/kg	430		6		630		0.16		29		43		31							
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	1	U	0.94	U	0.87	U	0.92	U	0.97	U	0.9	U	0.96	U						
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Methylene Chloride	75-09-2	mg/kg	0.25	U	0.24	U	0.22	U	0.23	U	0.24	U	0.23	U	0.24	U						
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.17		0.12	U	0.28		0.11	U	0.054	J	0.11	U	0.12							
VOCs	Naphthalene	91-20-3	mg/kg	1.3	U	1.2	U	1.1	U	1.1	U	1.2	U	1.1	U	1.2	U						
VOCs	o-Xylene	95-47-6	mg/kg	96		1.2		150		0.11	U	4.5		10		5.9							
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Styrene	100-42-5	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.13	U	0.12	U	0.047	J	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Tetrahydrofuran	109-99-9	mg/kg	1	U	0.94	U	0.87	U	0.92	U	0.97	U	0.9	U	0.96	U						
VOCs	Toluene	108-88-3	mg/kg	47		0.76		40		0.11	U	0.2		2.8		0.59							
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Trichloroethene	79-01-6	mg/kg	14		0.12	U	5.1		0.11	U	0.077	J	1.2		0.085	J						
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Vinyl chloride	75-01-4	mg/kg	0.25	U	0.24	U	0.22	U	0.23	U	0.24	U	0.086	J	0.24	U						
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-232		B-232		B-232		B-233		B-233		B-233		B-233		B-234		B-235		B-236	
			Field Sample ID	C042407-B232 S2		C042407-B232 S3		C042407-B232 S4		C042407-B233 S1		C042407-B233 S2		C042407-B233 S3		C042407-B233 S4		C042407-B234		C042407-B235		C042407-B236	
			Sample Start Depth	6		8		10		4		6		8		10		0		0		0	
			Sample End Depth	8		10		12		6		8		10		12		4		4		4	
			Sample Date	4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-232		B-232		B-232		B-233		B-233		B-233		B-233		B-234		B-235		B-236	
			Field Sample ID	C042407-B232 S2		C042407-B232 S3		C042407-B232 S4		C042407-B233 S1		C042407-B233 S2		C042407-B233 S3		C042407-B233 S4		C042407-B234		C042407-B235		C042407-B236	
			Sample Start Depth	6		8		10		4		6		8		10		0		0		0	
			Sample End Depth	8		10		12		6		8		10		12		4		4		4	
			Sample Date	4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg															51,000		18,000		12,000	
Metals	Antimony	7440-36-0	mg/kg															4.7	J	2.6		1.8	
Metals	Arsenic	7440-38-2	mg/kg															28		26		23	
Metals	Barium	7440-39-3	mg/kg															230		99		62	
Metals	Beryllium	7440-41-7	mg/kg															4.5	U	0.24	U	0.24	U
Metals	Cadmium	7440-43-9	mg/kg															0.95	J	0.43		0.33	
Metals	Calcium	7440-70-2	mg/kg															4,700		3,400		14,000	
Metals	Chromium	7440-47-3	mg/kg															130		140		74	
Metals	Cobalt	7440-48-4	mg/kg															35		13		9.1	
Metals	Copper	7440-50-8	mg/kg															150		91		43	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg															0.97	U	11		2.7	
Metals	Iron	7439-89-6	mg/kg															70,000		24,000		18,000	
Metals	Lead	7439-92-1	mg/kg															9.4	J	51		9.1	
Metals	Magnesium	7439-95-4	mg/kg															32,000		13,000		8,000	
Metals	Manganese	7439-96-5	mg/kg															540		360		300	
Metals	Mercury	7439-97-6	mg/kg															0.082	U	0.04	J	0.07	U
Metals	Nickel	7440-02-0	mg/kg															110		44		33	
Metals	Potassium	7440-09-7	mg/kg															28,000		6,300		4,300	
Metals	Selenium	7782-49-2	mg/kg															11	U	0.59	U	0.61	U
Metals	Silver	7440-22-4	mg/kg															11	U	5.3		0.96	
Metals	Sodium	7440-23-5	mg/kg															290	J	210		130	
Metals	Thallium	7440-28-0	mg/kg															23	U	0.25	J	1.2	U
Metals	Vanadium	7440-62-2	mg/kg															140		46		27	
Metals	Zinc	7440-66-6	mg/kg															130		49		35	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg					3.2	JN														
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg	1.3	JN																		
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-237		B-238		B-24		B-24		B-24		B-25		B-25		B-26		B-26	
			Field Sample ID	C042407-B237		C042407-B238		C062204-B24-10-12		C062204-B24-4-6		C062204-B24-8-10		C062204-B25-10-11		C062204-B25-12-12.8		C062204-B25-4-6		C062204-B26-2-4		C062204-B26-8-10	
			Sample Start Depth	0		0		10		4		8		10		12		4		2		8	
			Sample End Depth	4		4		12		6		10		11		12.8		6		4		10	
			Sample Date	4/24/2007		4/24/2007		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	1,4-Dioxane	123-91-1	mg/kg					0.19	U							0.2	U			0.25	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																		
VOCs	2,2-Dichloropropane	594-20-7	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	2-Hexanone	591-78-6	mg/kg					0.015	U							0.016	U			0.02	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg					0.015	U							0.016	U			0.02	U
VOCs	Acetone	67-64-1	mg/kg					0.038	U							0.04	U			0.049	U
VOCs	Benzene	71-43-2	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Bromobenzene	108-86-1	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Bromoform	75-25-2	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Bromomethane	74-83-9	mg/kg					0.0038	U							0.004	U			0.0049	U
VOCs	Carbon disulfide	75-15-0	mg/kg					0.038	U							0.04	U			0.049	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Chlorobenzene	108-90-7	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Chlorobromomethane	74-97-5	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Chloroethane	75-00-3	mg/kg					0.0038	U							0.004	U			0.0049	U
VOCs	Chloroform	67-66-3	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Chloromethane	74-87-3	mg/kg					0.0038	U							0.004	U			0.0049	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Dibromomethane	74-95-3	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Ethylbenzene	100-41-4	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Hexanal	0066-25-1	mg/kg																		
VOCs	Isopropylbenzene	98-82-8	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	m&p-Xylenes	NA	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg					0.015	U							0.016	U			0.02	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg					0.0038	U							0.004	U			0.0049	U
VOCs	Methylene Chloride	75-09-2	mg/kg					0.0038	U							0.004	U			0.0049	U
VOCs	n-Butylbenzene	104-51-8	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	N-Propylbenzene	103-65-1	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Naphthalene	91-20-3	mg/kg					0.019	U							0.02	U			0.025	U
VOCs	o-Xylene	95-47-6	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Styrene	100-42-5	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Tetrachloroethene	127-18-4	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg					0.0038	U							0.004	U			0.0049	U
VOCs	Toluene	108-88-3	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Trichloroethene	79-01-6	mg/kg					0.0019	U							0.026				0.0025	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg					0.0019	U							0.002	U			0.0025	U
VOCs	Vinyl chloride	75-01-4	mg/kg					0.0038	U							0.004	U			0.0049	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																		
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																	0.36	U
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																	0.36	U
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																	0.36	U
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																	0.36	U
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																	0.36	U
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																	0.36	U
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																	0.36	U
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																	0.36	U
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																	0.36	U
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																	0.36	U
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																	0.36	U
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																	0.36	U
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																	0.36	U
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																	0.87	
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																	0.36	U

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-237		B-238		B-24		B-24		B-24		B-25		B-25		B-25		B-26		B-26	
			Field Sample ID	C042407-B237		C042407-B238		C062204-B24-10-12		C062204-B24-4-6		C062204-B24-8-10		C062204-B25-10-11		C062204-B25-12-12.8		C062204-B25-4-6		C062204-B26-2-4		C062204-B26-8-10	
			Sample Start Depth	0		0		10		4		8		10		12		4		2		8	
			Sample End Depth	4		4		12		6		10		11		12.8		6		4		10	
			Sample Date	4/24/2007		4/24/2007		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																	0.36	U	0.37	U
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																	0.36	U	0.37	U
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																	0.71	U	0.75	U
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																	0.36	U	0.37	U
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																	0.71	U	0.75	U
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																	1.8	U	1.9	U
SVOCs	Acenaphthene	83-32-9	mg/kg																	0.73		0.19	U
SVOCs	Acenaphthylene	208-96-8	mg/kg																	0.15	J	0.19	U
SVOCs	Acetophenone	98-86-2	mg/kg																	0.36	U	0.37	U
SVOCs	Aniline	62-53-3	mg/kg																	1.8	U	1.9	U
SVOCs	Anthracene	120-12-7	mg/kg																	0.45		0.19	U
SVOCs	Azobenzene	103-33-3	mg/kg																	0.36	U	0.37	U
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																	0.36		0.19	U
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																	0.23		0.19	U
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																	0.13	J	0.19	U
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																	0.093	J	0.19	U
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																	0.16	J	0.19	U
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																	0.36	U	0.37	U
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																	0.36	U	0.37	U
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																	0.36	U	0.37	U
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																	0.36	U	0.37	U
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																	0.36	U	0.37	U
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																	0.3		0.19	U
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																	0.36	U	0.37	U
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																	0.36	U	0.37	U
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																	0.18	U	0.19	U
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																	0.36	U	0.37	U
SVOCs	Diethyl phthalate	84-66-2	mg/kg																	0.36	U	0.37	U
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																	0.36	U	0.37	U
SVOCs	Fluoranthene	206-44-0	mg/kg																	0.55		0.19	U
SVOCs	Fluorene	86-73-7	mg/kg																	0.52		0.19	U
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																	0.36	U	0.37	U
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																	0.36	U	0.37	U
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																	0.36	U	0.37	U
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																	0.18	U	0.19	U
SVOCs	ISOPHORONE	78-59-1	mg/kg																	0.36	U	0.37	U
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																	1.2		0.19	U
SVOCs	NITROBENZENE	98-95-3	mg/kg																	0.36	U	0.37	U
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																	1.8	U	1.9	U
SVOCs	Phenanthrene	85-01-8	mg/kg																	1.4		0.19	U
SVOCs	PHENOL	108-95-2	mg/kg																	0.36	U	0.37	U
SVOCs	Pyrene	129-00-0	mg/kg																	0.86		0.19	U
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																	3.5	U	3.7	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																	3.5	U	3.7	U
EPH	C9-C18 Aliphatics	NA	mg/kg																	3.5	U	3.7	U
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																	3.5	U	3.7	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-237		B-238		B-24		B-24		B-24		B-25		B-25		B-25		B-26		B-26	
			Field Sample ID	C042407-B237		C042407-B238		C062204-B24-10-12		C062204-B24-4-6		C062204-B24-8-10		C062204-B25-10-11		C062204-B25-12-12.8		C062204-B25-4-6		C062204-B26-2-4		C062204-B26-8-10	
			Sample Start Depth	0		0		10		4		8		10		12		4		2		8	
			Sample End Depth	4		4		12		6		10		11		12.8		6		4		10	
			Sample Date	4/24/2007		4/24/2007		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	13,000		10,000				11,000		9,600		13,000				9,900		13,000		14,000	
Metals	Antimony	7440-36-0	mg/kg	2.2		1.2				2.4	U	2.3	U	4.3				2.4	U	2.5	U	2.2	U
Metals	Arsenic	7440-38-2	mg/kg	19		26				21		45		30				23		64		40	
Metals	Barium	7440-39-3	mg/kg	54		38				57		46		62				75		53		43	
Metals	Beryllium	7440-41-7	mg/kg	0.26	U	0.24	U			0.28		0.23	U	0.31				0.24		0.27		0.22	U
Metals	Cadmium	7440-43-9	mg/kg	0.35		0.26				0.24	U	0.23	U	0.31	U			0.32		0.25	U	0.22	U
Metals	Calcium	7440-70-2	mg/kg	2,700		1,700				1,200		1,600		1,400				2,000		870		1,900	
Metals	Chromium	7440-47-3	mg/kg	110		55				34		53		2000				58		560		680	
Metals	Cobalt	7440-48-4	mg/kg	10		6.5				7.5		9.2		7.6				6.7		9.7		12	
Metals	Copper	7440-50-8	mg/kg	130		41				11		130		340				27		64		330	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	3.3		3.3				0.59		2.7		9.2				2.2	U	55		48	
Metals	Iron	7439-89-6	mg/kg	20,000		15,000				15,000		17,000		23,000				15,000		22,000		22,000	
Metals	Lead	7439-92-1	mg/kg	15		35				4.6		5.6		260				230		12		8.6	
Metals	Magnesium	7439-95-4	mg/kg	8,700		4,600				5,600		7,000		8,500				5,500		9,400		11,000	
Metals	Manganese	7439-96-5	mg/kg	220		250				240		310		180				220		280		410	
Metals	Mercury	7439-97-6	mg/kg	0.034	J	0.099	U			0.097	U	0.083	U	0.22				0.28		0.087	U	0.096	U
Metals	Nickel	7440-02-0	mg/kg	34		22				30		35		32				24		34		47	
Metals	Potassium	7440-09-7	mg/kg	3,600		2,400				1,700		2,300		2,300				1,800		3,300		3,400	
Metals	Selenium	7782-49-2	mg/kg	0.64	U	0.6	U			1.2	U	1.2	U	1.5	U			1.2	U	1.2	U	1.1	U
Metals	Silver	7440-22-4	mg/kg	1.8		0.67				1.2	U	1.2	U	1.9				1.2	U	1.2	U	1.1	U
Metals	Sodium	7440-23-5	mg/kg	100	J	68	J			150		180		210				180		150		220	
Metals	Thallium	7440-28-0	mg/kg	1.3	U	1.2	U			1.2	U	1.2	U	1.5	U			1.2	U	1.2	U	1.1	U
Metals	Vanadium	7440-62-2	mg/kg	32		20				21		22		30				22		49		36	
Metals	Zinc	7440-66-6	mg/kg	41		33				28		35		94				140		41		46	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																	0.008	J		
TIC	1-4-Methanonaphthalene	NA	mg/kg																	0.02	J		
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																	0.007	J		
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																	0.005	J		
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																	0.005	J		
TIC	2-Methylanthracene	613-12-7	mg/kg																	0.006	J		
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-32		B-32		B-33		B-33		B-34		B-35		B-35		B-36A		B-38		B-38	
			Field Sample ID	C062204-B32-4-6		C062204-B32-6-8		C062204-B33-4-6		C062204-B33-6-8		C062304-B34-0.4-2		C062304-B35-0.4-2.4		C062304-B35-2.4-4.4		C062304-B36A-0.4-2.1		C062404-B38-2-4		C062404-B38-4-6	
			Sample Start Depth	4		6		4		6		0.4		0.4		2.4		0.4		2		4	
			Sample End Depth	6		8		6		8		2		2.4		4.4		2.1		4		6	
			Sample Date	6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/23/2004		6/23/2004		6/23/2004		6/23/2004		6/24/2004		6/24/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,4-Dioxane	123-91-1	mg/kg			0.24	U			0.22	U	0.23	U	0.26	U	0.22	U	0.22	U			0.21	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	2-Hexanone	591-78-6	mg/kg			0.019	U			0.018	U	0.019	U	0.021	U	0.018	U	0.018	U			0.017	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg			0.019	U			0.018	U	0.019	U	0.021	U	0.018	U	0.018	U			0.017	U
VOCs	Acetone	67-64-1	mg/kg			0.047	U			0.045	U	0.046	U	0.052	U	0.045	U	0.045	U			0.042	U
VOCs	Benzene	71-43-2	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Bromobenzene	108-86-1	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Bromoform	75-25-2	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Bromomethane	74-83-9	mg/kg			0.0047	U			0.0045	U	0.0046	U	0.0052	U	0.0045	U	0.0045	U			0.0042	U
VOCs	Carbon disulfide	75-15-0	mg/kg			0.047	U			0.012	J	0.046	U	0.052	U	0.045	U	0.045	U			0.042	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Chlorobenzene	108-90-7	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Chlorobromomethane	74-97-5	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Chloroethane	75-00-3	mg/kg			0.0047	U			0.0045	U	0.0046	U	0.0052	U	0.0045	U	0.0045	U			0.0042	U
VOCs	Chloroform	67-66-3	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Chloromethane	74-87-3	mg/kg			0.0047	U			0.0045	U	0.0046	U	0.0052	U	0.0045	U	0.0045	U			0.0042	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Dibromomethane	74-95-3	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Ethylbenzene	100-41-4	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	m&p-Xylenes	NA	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg			0.019	U			0.018	U	0.019	U	0.021	U	0.018	U	0.018	U			0.017	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg			0.0047	U			0.0045	U	0.0046	U	0.0052	U	0.0045	U	0.0045	U			0.0042	U
VOCs	Methylene Chloride	75-09-2	mg/kg			0.0047	U			0.0045	U	0.0046	U	0.0052	U	0.0045	U	0.0045	U			0.0042	U
VOCs	n-Butylbenzene	104-51-8	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	N-Propylbenzene	103-65-1	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Naphthalene	91-20-3	mg/kg			0.024	U			0.022	U	0.023	U	0.026	U	0.022	U	0.022	U			0.021	U
VOCs	o-Xylene	95-47-6	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Styrene	100-42-5	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Tetrachloroethene	127-18-4	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg			0.0047	U			0.0045	U	0.0046	U	0.0052	U	0.0045	U	0.0045	U			0.0042	U
VOCs	Toluene	108-88-3	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Trichloroethene	79-01-6	mg/kg			0.0035				0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Vinyl chloride	75-01-4	mg/kg			0.0047	U			0.0045	U	0.0046	U	0.0052	U	0.0045	U	0.0045	U			0.0042	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-32		B-32		B-33		B-33		B-34		B-35		B-35		B-36A		B-38		B-38	
			Field Sample ID	C062204-B32-4-6		C062204-B32-6-8		C062204-B33-4-6		C062204-B33-6-8		C062304-B34-0.4-2		C062304-B35-0.4-2.4		C062304-B35-2.4-4.4		C062304-B36A-0.4-2.1		C062404-B38-2-4		C062404-B38-4-6	
			Sample Start Depth	4		6		4		6		0.4		0.4		2.4		0.4		2		4	
			Sample End Depth	6		8		6		8		2		2.4		4.4		2.1		4		6	
			Sample Date	6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/23/2004		6/23/2004		6/23/2004		6/23/2004		6/24/2004		6/24/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg									0.71	U	0.73	U	0.74	U	0.73	U			0.74	U
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg									0.71	U	0.73	U	0.74	U	0.73	U			0.74	U
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg									1.8	U	1.8	U	1.8	U	1.8	U			1.8	U
SVOCs	Acenaphthene	83-32-9	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Acenaphthylene	208-96-8	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Acetophenone	98-86-2	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Aniline	62-53-3	mg/kg									1.8	U	1.8	U	1.8	U	1.8	U			1.8	U
SVOCs	Anthracene	120-12-7	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Azobenzene	103-33-3	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	DIBENZOFURAN	132-64-9	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Diethyl phthalate	84-66-2	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Fluoranthene	206-44-0	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Fluorene	86-73-7	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	ISOPHORONE	78-59-1	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	NITROBENZENE	98-95-3	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg									1.8	U	1.8	U	1.8	U	1.8	U			1.8	U
SVOCs	Phenanthrene	85-01-8	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	PHENOL	108-95-2	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Pyrene	129-00-0	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg									3.6	U	3.7	U	3.7	U	3.7	U			3.7	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																			3.7	U
EPH	C19-C36 Aliphatics	NA	mg/kg									3.6	U	3.7	U	3.7	U	3.7	U			9	
EPH	C9-C18 Aliphatics	NA	mg/kg									3.6	U	3.7	U	3.7	U	3.7	U			3.7	U
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg									3.6	U	3.7	U	3.7	U	3.7	U			9	
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-32		B-32		B-33		B-33		B-34		B-35		B-35		B-36A		B-38		B-38	
			Field Sample ID	C062204-B32-4-6		C062204-B32-6-8		C062204-B33-4-6		C062204-B33-6-8		C062304-B34-0.4-2		C062304-B35-0.4-2.4		C062304-B35-2.4-4.4		C062304-B36A-0.4-2.1		C062404-B38-2-4		C062404-B38-4-6	
			Sample Start Depth	4		6		4		6		0.4		0.4		2.4		0.4		2		4	
			Sample End Depth	6		8		6		8		2		2.4		4.4		2.1		4		6	
			Sample Date	6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/23/2004		6/23/2004		6/23/2004		6/23/2004		6/24/2004		6/24/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	11,000		41,000		21,000		14,000		24,000		10,000		10,000		52,000		9,600		12,000	
Metals	Antimony	7440-36-0	mg/kg	3.6		10		2.3	U	3.1		2.3	U	1.3	U	1.3	U	2.5	U	1.4	U	1.4	U
Metals	Arsenic	7440-38-2	mg/kg	41		71		79		59		100		23		27		130		15		31	
Metals	Barium	7440-39-3	mg/kg	56		330		170		140		160		40		42		290		45		58	
Metals	Beryllium	7440-41-7	mg/kg	0.28	U	0.61	U	0.23	U	0.25	U	0.23	U	0.17		0.22		0.32		0.26		0.34	
Metals	Cadmium	7440-43-9	mg/kg	0.28	U	0.61	U	0.23	U	0.65		0.23	U	0.13	U	0.13	U	0.25	U	0.14	U	0.14	U
Metals	Calcium	7440-70-2	mg/kg	1,800		15,000		3,400		1,800		6,100		1,800		2,100		20,000		2,900		2,200	
Metals	Chromium	7440-47-3	mg/kg	980		4600		660		1300		120		34		38		100		150		240	
Metals	Cobalt	7440-48-4	mg/kg	8		21		11		11		20		7.1		8.3		28		6		8.6	
Metals	Copper	7440-50-8	mg/kg	2700		2500		230		1500		62		10		13		13		71		120	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	65		29		15		1.8		3.6		0.25	U	0.19	U	0.21	U	1.7		7.3	
Metals	Iron	7439-89-6	mg/kg	17,000		61,000		34,000		23,000		36,000		15,000		16,000		49,000		12,000		18,000	
Metals	Lead	7439-92-1	mg/kg	370		350		47		280		14		4.5		7.7		7.9		10		36	
Metals	Magnesium	7439-95-4	mg/kg	5,800		22,000		16,000		9,900		17,000		6,100		6,500		26,000		4,400		6,800	
Metals	Manganese	7439-96-5	mg/kg	220		490		250		370		360		230		330		1,100		210		260	
Metals	Mercury	7439-97-6	mg/kg	0.39		0.083	U	0.086	U	0.15		0.092	U	0.11	U	0.089	U	0.094	U	0.1	U	0.1	U
Metals	Nickel	7440-02-0	mg/kg	49		63		58		210		59		25		33		12		19		30	
Metals	Potassium	7440-09-7	mg/kg	2,200		15,000		10,000		6,800		7,400		2,700		2,200		12,000		2,500		3,300	
Metals	Selenium	7782-49-2	mg/kg	1.4	U	3.1	U	1.2	U	1.2	U	1.1	U	0.67	U	0.64	U	1.2	U	0.71	U	0.69	U
Metals	Silver	7440-22-4	mg/kg	12		3.1	U	5.4		40		1.1	U	0.67	U	0.64	U	1.2	U	0.71	U	0.69	U
Metals	Sodium	7440-23-5	mg/kg	250		13000		820		440		570		130	U	150		4100		200		230	
Metals	Thallium	7440-28-0	mg/kg	1.4	U	3.1	U	1.2	U	1.2	U	1.1	U	0.67	U	0.64	U	1.2	U	0.71	U	0.69	U
Metals	Vanadium	7440-62-2	mg/kg	26		220		62		49		83		23		24		180		21		28	
Metals	Zinc	7440-66-6	mg/kg	43		64		61		59		67		31		32		79		27		37	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																			0.005	J
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg							0.02	J												
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-38		B-39		B-40		B-40		B-41		B-45		B-46		B-46		B-46		B-47	
			Field Sample ID	C062404-B38-8-10		C062304-B39-2-2.9		C062404-B40-0-2		C062404-B40-6-7.9		C062404-B41-0.5-1		C062404-B45-9-11		C100404-B46-S2		C100404-B46-S3		C100404-B46-S5		C100404-B47-S2	
			Sample Start Depth	8		2		0		6		0.5		9		2		4		8		2	
			Sample End Depth	10		2.9		2		7.75		1		11		4		6		10		4	
			Sample Date	6/24/2004		6/23/2004		6/24/2004		6/24/2004		6/24/2004		6/24/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.17	U	0.25	U	0.23	U	0.2	U			0.18	U								
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	2-Hexanone	591-78-6	mg/kg	0.014	U	0.02	U	0.019	U	0.016	U			0.014	U								
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.014	U	0.02	U	0.019	U	0.016	U			0.014	U								
VOCs	Acetone	67-64-1	mg/kg	0.035	U	0.049	U	0.047	U	0.039	U			0.035	U								
VOCs	Benzene	71-43-2	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Bromobenzene	108-86-1	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Bromoform	75-25-2	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Bromomethane	74-83-9	mg/kg	0.0035	U	0.0049	U	0.0047	U	0.0039	U			0.0035	U								
VOCs	Carbon disulfide	75-15-0	mg/kg	0.035	U	0.049	U	0.047	U	0.039	U			0.035	U								
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Chloroethane	75-00-3	mg/kg	0.0035	U	0.0049	U	0.0047	U	0.0039	U			0.0035	U								
VOCs	Chloroform	67-66-3	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Chloromethane	74-87-3	mg/kg	0.0035	U	0.0049	U	0.0047	U	0.0039	U			0.0035	U								
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0017	U	0.034		0.0023	U	0.002	U			0.0018	U								
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Dibromomethane	74-95-3	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	m&p-Xylenes	NA	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.014	U	0.02	U	0.019	U	0.016	U			0.014	U								
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0035	U	0.0049	U	0.0047	U	0.0039	U			0.0035	U								
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0035	U	0.0049	U	0.0047	U	0.0039	U			0.0035	U								
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Naphthalene	91-20-3	mg/kg	0.017	U	0.025	U	0.023	U	0.02	U			0.018	U								
VOCs	o-Xylene	95-47-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Styrene	100-42-5	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0017	U	0.026		0.0023	U	0.002	U			0.0018	U								
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.0035	U	0.0049	U	0.0047	U	0.0039	U			0.0035	U								
VOCs	Toluene	108-88-3	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Trichloroethene	79-01-6	mg/kg	0.0025		0.022		0.0023	U	0.002	U			0.0018	U								
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0035	U	0.0049	U	0.0047	U	0.0039	U			0.0035	U								
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg			0.36	U																
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg			0.36	U																
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg			0.36	U																
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg			0.36	U																
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg			0.36	U																
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg			0.36	U																
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg			0.36	U																
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg			0.36	U																
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg			0.36	U																
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg			0.36	U																
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg			0.36	U																
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg			0.36	U																
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg			0.36	U																
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg			0.18	U																
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg			0.36	U																

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-38		B-39		B-40		B-40		B-41		B-45		B-46		B-46		B-46		B-47	
			Field Sample ID	C062404-B38-8-10		C062304-B39-2-2.9		C062404-B40-0-2		C062404-B40-6-7.9		C062404-B41-0.5-1		C062404-B45-9-11		C100404-B46-S2		C100404-B46-S3		C100404-B46-S5		C100404-B47-S2	
			Sample Start Depth	8		2		0		6		0.5		9		2		4		8		2	
			Sample End Depth	10		2.9		2		7.75		1		11		4		6		10		4	
			Sample Date	6/24/2004		6/23/2004		6/24/2004		6/24/2004		6/24/2004		6/24/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg			0.36	U																
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg			0.36	U																
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg			0.72	U																
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg			0.36	U																
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg			0.72	U																
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg			1.8	U																
SVOCs	Acenaphthene	83-32-9	mg/kg			0.18	U																
SVOCs	Acenaphthylene	208-96-8	mg/kg			0.18	U																
SVOCs	Acetophenone	98-86-2	mg/kg			0.36	U																
SVOCs	Aniline	62-53-3	mg/kg			1.8	U																
SVOCs	Anthracene	120-12-7	mg/kg			0.18	U																
SVOCs	Azobenzene	103-33-3	mg/kg			0.36	U																
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg			0.18	U																
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg			0.18	U																
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg			0.18	U																
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg			0.18	U																
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg			0.18	U																
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg			0.36	U																
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg			0.36	U																
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg			0.36	U																
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg			0.36	U																
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg			0.36	U																
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg			0.18	U																
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg			0.36	U																
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg			0.36	U																
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg			0.18	U																
SVOCs	DIBENZOFURAN	132-64-9	mg/kg			0.36	U																
SVOCs	Diethyl phthalate	84-66-2	mg/kg			0.36	U																
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg			0.36	U																
SVOCs	Fluoranthene	206-44-0	mg/kg			0.18	U																
SVOCs	Fluorene	86-73-7	mg/kg			0.18	U																
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg			0.36	U																
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg			0.36	U																
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg			0.36	U																
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg			0.18	U																
SVOCs	ISOPHORONE	78-59-1	mg/kg			0.36	U																
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg			0.18	U																
SVOCs	NITROBENZENE	98-95-3	mg/kg			0.36	U																
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg			1.8	U																
SVOCs	Phenanthrene	85-01-8	mg/kg			0.18	U																
SVOCs	PHENOL	108-95-2	mg/kg			0.36	U																
SVOCs	Pyrene	129-00-0	mg/kg			0.18	U																
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg			3.6	U																
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg			8.4																	
EPH	C9-C18 Aliphatics	NA	mg/kg			3.6	U																
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg			8.4																	
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-38		B-39		B-40		B-40		B-41		B-45		B-46		B-46		B-46		B-47	
			Field Sample ID	C062404-B38-8-10		C062304-B39-2-2.9		C062404-B40-0-2		C062404-B40-6-7.9		C062404-B41-0.5-1		C062404-B45-9-11		C100404-B46-S2		C100404-B46-S3		C100404-B46-S5		C100404-B47-S2	
			Sample Start Depth	8		2		0		6		0.5		9		2		4		8		2	
			Sample End Depth	10		2.9		2		7.75		1		11		4		6		10		4	
			Sample Date	6/24/2004		6/23/2004		6/24/2004		6/24/2004		6/24/2004		6/24/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	14,000		12,000		12,000		9,400		12,000		19,000									
Metals	Antimony	7440-36-0	mg/kg	1.6		1.2	U	1.2	U	1.3	U	1.5	U	1.4	U	0.44	B	0.63	B	0.44	B	0.4	B
Metals	Arsenic	7440-38-2	mg/kg	32		61		27		18		20		23		43		24		25		46	
Metals	Barium	7440-39-3	mg/kg	61		68		61		40		19		94									
Metals	Beryllium	7440-41-7	mg/kg	0.29		0.23		0.25		0.27		0.34		0.67		0.12	U	0.007	B	0.13	U	0.11	U
Metals	Cadmium	7440-43-9	mg/kg	0.13	U	0.12	U	0.12	U	0.13	U	0.15	U	0.14	U								
Metals	Calcium	7440-70-2	mg/kg	2,000		8,100		1,800		4,300		1,000		2,600									
Metals	Chromium	7440-47-3	mg/kg	680		240		76		65		120		42		55		28		36		68	
Metals	Cobalt	7440-48-4	mg/kg	9.7		11		8.7		7.1		6.6		10									
Metals	Copper	7440-50-8	mg/kg	330		130		40		150		55		23		19		12		11		19	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	50		0.85		1.5		0.45		5.7	U	0.21	U	0.45		1.1		1.7		0.23	U
Metals	Iron	7439-89-6	mg/kg	20,000		20,000		17,000		14,000		15,000		20,000									
Metals	Lead	7439-92-1	mg/kg	7.6		13		7.8		6.2		150		11		8.4		5		4.5		6.3	
Metals	Magnesium	7439-95-4	mg/kg	8,400		7,200		7,700		5,600		5,100		8,700									
Metals	Manganese	7439-96-5	mg/kg	300		350		270		250		190		450									
Metals	Mercury	7439-97-6	mg/kg	0.093	U	0.11	U	0.099	U	0.079	U	0.11	U	0.096	U								
Metals	Nickel	7440-02-0	mg/kg	37		39		33		26		22		34									
Metals	Potassium	7440-09-7	mg/kg	3,600		3,500		3,600		1,800		1,200		4,400									
Metals	Selenium	7782-49-2	mg/kg	0.64	U	0.59	U	0.58	U	0.67	U	0.75	U	0.69	U								
Metals	Silver	7440-22-4	mg/kg	0.64	U	0.59	U	0.58	U	0.67	U	0.75	U	0.69	U								
Metals	Sodium	7440-23-5	mg/kg	230		210		160		140		400		240									
Metals	Thallium	7440-28-0	mg/kg	0.64	U	0.59	U	0.58	U	0.67	U	0.75	U	0.69	U								
Metals	Vanadium	7440-62-2	mg/kg	32		32		30		20		25		30									
Metals	Zinc	7440-66-6	mg/kg	41		36		37		30		53		43									
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg			0.04	J																
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg					0.03	J														
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg			0.005	J																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-47		B-47		B-48		B-48		B-48		B-49		B-49		B-49		B-50		B-50	
			Field Sample ID	C100404-B47-S3		C100404-B47-S5		C100404-B48-S3		C100404-B48-S4		C100404-B48-S6		C100404-B49-S3		C100404-B49-S5		C100404-B49-S6		C100404-B50-S3		C100404-B50-S4	
			Sample Start Depth	4		8		4		6		8		4		8		10		4		6	
			Sample End Depth	6		10		6		8		10		6		10		11.83		6		8	
			Sample Date	10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,1-Dichloroethane	75-34-3	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,1-Dichloroethene	75-35-4	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,1-Dichloropropene	563-58-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2-Dichloroethane	107-06-2	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2-Dichloropropane	78-87-5	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,3-Dichloropropane	142-28-9	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,4-Dioxane	123-91-1	mg/kg					0.21	U	0.21	U	0.22	U										
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	2-Chlorotoluene	95-49-8	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	2-Hexanone	591-78-6	mg/kg					0.017	U	0.017	U	0.018	U										
VOCs	4-Chlorotoluene	106-43-4	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	4-Isopropyltoluene	99-87-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg					0.017	U	0.017	U	0.018	U										
VOCs	Acetone	67-64-1	mg/kg					0.21	U	0.21	U	0.22	U										
VOCs	Benzene	71-43-2	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Bromobenzene	108-86-1	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Bromoform	75-25-2	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Bromomethane	74-83-9	mg/kg					0.0043	U	0.0042	U	0.0044	U										
VOCs	Carbon disulfide	75-15-0	mg/kg					0.043	U	0.042	U	0.044	U										
VOCs	Carbon tetrachloride	56-23-5	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Chlorobenzene	108-90-7	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Chlorobromomethane	74-97-5	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Chlorodibromomethane	124-48-1	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Chloroethane	75-00-3	mg/kg					0.0043	U	0.0042	U	0.0044	U										
VOCs	Chloroform	67-66-3	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Chloromethane	74-87-3	mg/kg					0.0043	U	0.0042	U	0.0044	U										
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Dibromomethane	74-95-3	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Dichlorobromomethane	75-27-4	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	DIETHYL ETHER	60-29-7	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Ethylbenzene	100-41-4	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Hexachlorobutadiene	87-68-3	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	m&p-Xylenes	NA	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg					0.017	U	0.017	U	0.018	U										
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg					0.0043	U	0.0042	U	0.0044	U										
VOCs	Methylene Chloride	75-09-2	mg/kg					0.0043	U	0.0042	U	0.0044	U										
VOCs	n-Butylbenzene	104-51-8	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	N-Propylbenzene	103-65-1	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Naphthalene	91-20-3	mg/kg					0.021	U	0.021	U	0.022	U										
VOCs	o-Xylene	95-47-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	sec-Butylbenzene	135-98-8	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Styrene	100-42-5	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	tert-Butylbenzene	98-06-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Tetrachloroethene	127-18-4	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Tetrahydrofuran	109-99-9	mg/kg					0.015	U	0.015	U	0.015	U										
VOCs	Toluene	108-88-3	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Trichloroethene	79-01-6	mg/kg					0.0021	U	0.0021	U	0.0024											
VOCs	Trichlorofluoromethane	75-69-4	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Vinyl chloride	75-01-4	mg/kg					0.0043	U	0.0042	U	0.0044	U										
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-47		B-47		B-48		B-48		B-48		B-49		B-49		B-49		B-50		B-50	
			Field Sample ID	C100404-B47-S3		C100404-B47-S5		C100404-B48-S3		C100404-B48-S4		C100404-B48-S6		C100404-B49-S3		C100404-B49-S5		C100404-B49-S6		C100404-B50-S3		C100404-B50-S4	
			Sample Start Depth	4		8		4		6		8		4		8		10		4		6	
			Sample End Depth	6		10		6		8		10		6		10		11.83		6		8	
			Sample Date	10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-47		B-47		B-48		B-48		B-48		B-49		B-49		B-49		B-50		B-50	
			Field Sample ID	C100404-B47-S3		C100404-B47-S5		C100404-B48-S3		C100404-B48-S4		C100404-B48-S6		C100404-B49-S3		C100404-B49-S5		C100404-B49-S6		C100404-B50-S3		C100404-B50-S4	
			Sample Start Depth	4		8		4		6		8		4		8		10		4		6	
			Sample End Depth	6		10		6		8		10		6		10		11.83		6		8	
			Sample Date	10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg	0.52	B	3	U	2.5	U	2.4	U	2.2	U	2.2	U	2.4	U	2.2	U	2.4	U	2.4	U
Metals	Arsenic	7440-38-2	mg/kg	43		71		32		110		65		22		33		28		20		54	
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg	0.13	U	0.3	U	0.25	U	0.24	U	0.22	U	0.22	U	0.24	U	0.22	U	0.24	U	0.24	U
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	80		2000		760		670		1000		36		51		80		110		120	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg	30		2200		220		380		230		14		91		70		21		30	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.94		28		83		33		72		0.73		0.7		2		5.5		12	
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg	18		7		8.7		7.3		14		6.8		12		25		25		20	
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-50		B-51		B-51		B-51		B-52		B-52		B-52		B-53		B-53		B-53	
			Field Sample ID	C100404-B50-S6		C100804-B51-S3		C100804-B51-S4		C100804-B51-S5		C100804-B52-S3		C100804-B52-S4		C100804-B52-S6		C100804-B53-S2		C100804-B53-S4		C100804-B53-S5	
			Sample Start Depth	10		4		6		8		4		6		10		2		6		8	
			Sample End Depth	12		6		8		10		6		8		11.92		4		8		10	
			Sample Date	10/4/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,4-Dioxane	123-91-1	mg/kg															0.24	U	0.24	U	15	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	2-Hexanone	591-78-6	mg/kg															0.019	U	0.019	U	1.2	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg															0.019	U	0.019	U	1.2	U
VOCs	Acetone	67-64-1	mg/kg															0.24	U	0.24	U	15	U
VOCs	Benzene	71-43-2	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Bromobenzene	108-86-1	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Bromoform	75-25-2	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Bromomethane	74-83-9	mg/kg															0.0047	U	0.0048	U	0.3	U
VOCs	Carbon disulfide	75-15-0	mg/kg															0.047	U	0.048	U	3	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Chlorobenzene	108-90-7	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Chlorobromomethane	74-97-5	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Chloroethane	75-00-3	mg/kg															0.0047	U	0.0048	U	0.3	U
VOCs	Chloroform	67-66-3	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Chloromethane	74-87-3	mg/kg															0.0047	U	0.0048	U	0.3	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg															0.0024	U	0.0024	U	0.41	
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Dibromomethane	74-95-3	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Ethylbenzene	100-41-4	mg/kg															0.0024	U	0.03		1.1	
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	m&p-Xylenes	NA	mg/kg															0.0031		0.11		5.5	
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg															0.019	U	0.019	U	1.2	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg															0.0047	U	0.0048	U	0.3	U
VOCs	Methylene Chloride	75-09-2	mg/kg															0.0047	U	0.0048	U	0.3	U
VOCs	n-Butylbenzene	104-51-8	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	N-Propylbenzene	103-65-1	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Naphthalene	91-20-3	mg/kg															0.024	U	0.024	U	1.5	U
VOCs	o-Xylene	95-47-6	mg/kg															0.0024	U	0.0024	U	1.1	
VOCs	sec-Butylbenzene	135-98-8	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Styrene	100-42-5	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Tetrachloroethene	127-18-4	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg															0.016	U	0.017	U	1	U
VOCs	Toluene	108-88-3	mg/kg															0.0024	U	0.0024	U	0.31	
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Trichloroethene	79-01-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Vinyl chloride	75-01-4	mg/kg															0.0047	U	0.0048	U	0.3	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-50		B-51		B-51		B-51		B-52		B-52		B-52		B-53		B-53		B-53	
			Field Sample ID	C100404-B50-S6		C100804-B51-S3		C100804-B51-S4		C100804-B51-S5		C100804-B52-S3		C100804-B52-S4		C100804-B52-S6		C100804-B53-S2		C100804-B53-S4		C100804-B53-S5	
			Sample Start Depth	10		4		6		8		4		6		10		2		6		8	
			Sample End Depth	12		6		8		10		6		8		11.92		4		8		10	
			Sample Date	10/4/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Acenaphthylene	208-96-8	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Fluorene	86-73-7	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-50		B-51		B-51		B-51		B-52		B-52		B-52		B-53		B-53		B-53	
			Field Sample ID	C100404-B50-S6		C100804-B51-S3		C100804-B51-S4		C100804-B51-S5		C100804-B52-S3		C100804-B52-S4		C100804-B52-S6		C100804-B53-S2		C100804-B53-S4		C100804-B53-S5	
			Sample Start Depth	10		4		6		8		4		6		10		2		6		8	
			Sample End Depth	12		6		8		10		6		8		11.92		4		8		10	
			Sample Date	10/4/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg	2.3	U	1.2	U	2.4	U	1.3	U	1.2	U	1.2	U	1.2	U	2.2	U	1.1	U	1.2	U
Metals	Arsenic	7440-38-2	mg/kg	30		54		19		15		42		100		43		41		25		20	
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg	0.23	U	0.12	U	0.24	U	0.13	U	0.12	U	0.12	U	0.12	U	0.11	U	0.11	U	0.12	U
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	49		120		49		21		41		32		34		130		54		34	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg	78		18		42		66		15		92		190		130		20		10	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	3.9		14		16		3.6		2.4		3.1		3.3		19		0.24	U	0.56	
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg	27		7.8		4.9		3.3		5		4.8		3.9		8.9		5.6		5.4	
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-54		B-54		B-54		B-55		B-56		B-56		B-56		B-57		B-57		B-57	
			Field Sample ID	C100504-B54-S3		C100504-B54-S5		C100504-B54-S9		C100504-B55-S8		C100504-B56-S2		C100504-B56-S4		C100504-B56-S8		C100504-B57-S2		C100504-B57-S4		C100504-B57-S8	
			Sample Start Depth	4		8		15		14		2		6		14		2		6		14	
			Sample End Depth	6		10		15.92		14.67		4		8		14.67		4		8		14.33	
			Sample Date	10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.22	U	0.17	U	0.18	U	0.27	U	0.17	U	0.19	U	0.25	U	0.24	U	0.22	U	0.22	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.017	U	0.014	U	0.014	U	0.022	U	0.014	U	0.015	U	0.02	U	0.019	U	0.018	U	0.017	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.017	U	0.014	U	0.014	U	0.022	U	0.014	U	0.015	U	0.02	U	0.019	U	0.018	U	0.017	U
VOCs	Acetone	67-64-1	mg/kg	0.22	U	0.17	U	0.18	U	0.27	U	0.17	U	0.19	U	0.25	U	0.24	U	0.22	U	0.22	U
VOCs	Benzene	71-43-2	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Bromoform	75-25-2	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Bromomethane	74-83-9	mg/kg	0.0043	U	0.0034	U	0.0035	U	0.0054	U	0.0035	U	0.0038	U	0.0051	U	0.0048	U	0.0044	U	0.0044	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.043	U	0.034	U	0.035	U	0.054	U	0.035	U	0.038	U	0.051	U	0.048	U	0.044	U	0.044	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Chloroethane	75-00-3	mg/kg	0.0043	U	0.0034	U	0.0035	U	0.0054	U	0.0035	U	0.0038	U	0.0051	U	0.0048	U	0.0044	U	0.0044	U
VOCs	Chloroform	67-66-3	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Chloromethane	74-87-3	mg/kg	0.0043	U	0.0034	U	0.0035	U	0.0054	U	0.0035	U	0.0038	U	0.0051	U	0.0048	U	0.0044	U	0.0044	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0022		0.0027		0.0021		0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0037	
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	m&p-Xylenes	NA	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0042		0.0017	U	0.0019	U	0.0025	U	0.009		0.0022	U	0.0022	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.017	U	0.014	U	0.014	U	0.022	U	0.014	U	0.015	U	0.02	U	0.019	U	0.018	U	0.017	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0043	U	0.0034	U	0.0035	U	0.0054	U	0.0035	U	0.0038	U	0.0051	U	0.0048	U	0.0044	U	0.0044	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0043	U	0.0034	U	0.0035	U	0.0054	U	0.0035	U	0.0038	U	0.0051	U	0.0048	U	0.0044	U	0.0044	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Naphthalene	91-20-3	mg/kg	0.022	U	0.017	U	0.018	U	0.027	U	0.017	U	0.019	U	0.025	U	0.024	U	0.022	U	0.022	U
VOCs	o-Xylene	95-47-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0036		0.0022	U	0.0022	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Styrene	100-42-5	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.015	U	0.012	U	0.012	U	0.019	U	0.012	U	0.013	U	0.017	U	0.016	U	0.015	U	0.015	U
VOCs	Toluene	108-88-3	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.0022	U	0.0093		0.0036		0.006		0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0093	
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0043	U	0.0034	U	0.0035	U	0.0054	U	0.0035	U	0.0038	U	0.0051	U	0.0048	U	0.0044	U	0.0044	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-54		B-54		B-54		B-55		B-56		B-56		B-56		B-57		B-57		B-57	
			Field Sample ID	C100504-B54-S3		C100504-B54-S5		C100504-B54-S9		C100504-B55-S8		C100504-B56-S2		C100504-B56-S4		C100504-B56-S8		C100504-B57-S2		C100504-B57-S4		C100504-B57-S8	
			Sample Start Depth	4		8		15		14		2		6		14		2		6		14	
			Sample End Depth	6		10		15.92		14.67		4		8		14.67		4		8		14.33	
			Sample Date	10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-54		B-54		B-54		B-55		B-56		B-56		B-56		B-57		B-57		B-57	
			Field Sample ID	C100504-B54-S3		C100504-B54-S5		C100504-B54-S9		C100504-B55-S8		C100504-B56-S2		C100504-B56-S4		C100504-B56-S8		C100504-B57-S2		C100504-B57-S4		C100504-B57-S8	
			Sample Start Depth	4		8		15		14		2		6		14		2		6		14	
			Sample End Depth	6		10		15.92		14.67		4		8		14.67		4		8		14.33	
			Sample Date	10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg	2.3	U	2.2	U	2.4	U	2.5	U	2.5	U	2.3	U	2.3	U	2.3	U	2.2	U	2.3	U
Metals	Arsenic	7440-38-2	mg/kg	23		14		19		22		47		23		21		29		9.2		31	
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg	0.23	U	0.22	U	0.24	U	0.25	U	0.25	U	0.23	U	0.23	U	0.23	U	0.22	U	0.23	U
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	51		460		83		72		640		270		120		930		17		240	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg	13		110		27		39		61		17		21		21		10		11	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	2.5		14		9.5		4.4		27		6.6		8		0.66		0.28		8.7	
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg	11		7.3		7.3		4.9		9.1		5.8		8		7.2		4.4		4	
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

				Location ID	B-58		B-59		B-59		B-61		B-61		B-62		B-62		B-63		B-65		B-65	
				Field Sample ID	C100604-B58-S8		C100604-B59-S4		C100604-B59-S5		C100604-B61-S1		C100604-B61-S2		C100604-B62-S2		C100604-B62-S3		C100604-B63-S4		C100604-B65-S3		C100604-B65-S4	
				Sample Start Depth	14		5		6		0		2		2		4		6		4		6	
				Sample End Depth	14.83		6		6.83		2		3.25		4		5.92		6.42		6		8	
				Sample Date	10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg		0.002	U	0.2	U																
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg		0.002	U	0.2	U																
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		0.002	U	0.2	U																
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg		0.002	U	0.2	U																
VOCs	1,1-Dichloroethane	75-34-3	mg/kg		0.002	U	0.2	U																
VOCs	1,1-Dichloroethene	75-35-4	mg/kg		0.002	U	0.2	U																
VOCs	1,1-Dichloropropene	563-58-6	mg/kg		0.002	U	0.2	U																
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg		0.002	U	0.2	U																
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg		0.002	U	0.2	U																
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg		0.002	U	0.2	U																
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg		0.002	U	0.2	U																
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg		0.002	U	0.2	U																
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg		0.002	U	0.2	U																
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg		0.002	U	0.2	U																
VOCs	1,2-Dichloroethane	107-06-2	mg/kg		0.002	U	0.2	U																
VOCs	1,2-Dichloropropane	78-87-5	mg/kg		0.002	U	0.2	U																
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg		0.002	U	0.2	U																
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg		0.002	U	0.2	U																
VOCs	1,3-Dichloropropane	142-28-9	mg/kg		0.002	U	0.2	U																
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg		0.002	U	0.2	U																
VOCs	1,4-Dioxane	123-91-1	mg/kg		0.2	U	20	U																
VOCs	1-Chlorohexane	544-10-5	mg/kg																					
VOCs	2,2-Dichloropropane	594-20-7	mg/kg		0.002	U	0.2	U																
VOCs	2-Chlorotoluene	95-49-8	mg/kg		0.002	U	0.2	U																
VOCs	2-Hexanone	591-78-6	mg/kg		0.016	U	1.6	U																
VOCs	4-Chlorotoluene	106-43-4	mg/kg		0.002	U	0.2	U																
VOCs	4-Isopropyltoluene	99-87-6	mg/kg		0.002	U	0.2	U																
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg		0.016	U	1.6	U																
VOCs	Acetone	67-64-1	mg/kg		0.2	U	20	U																
VOCs	Benzene	71-43-2	mg/kg		0.002	U	0.2	U																
VOCs	Bromobenzene	108-86-1	mg/kg		0.002	U	0.2	U																
VOCs	Bromoform	75-25-2	mg/kg		0.002	U	0.2	U																
VOCs	Bromomethane	74-83-9	mg/kg		0.0039	U	0.41	U																
VOCs	Carbon disulfide	75-15-0	mg/kg		0.039	U	4.1	U																
VOCs	Carbon tetrachloride	56-23-5	mg/kg		0.002	U	0.2	U																
VOCs	Chlorobenzene	108-90-7	mg/kg		0.002	U	0.2	U																
VOCs	Chlorobromomethane	74-97-5	mg/kg		0.002	U	0.2	U																
VOCs	Chlorodibromomethane	124-48-1	mg/kg		0.002	U	0.2	U																
VOCs	Chloroethane	75-00-3	mg/kg		0.0039	U	0.41	U																
VOCs	Chloroform	67-66-3	mg/kg		0.002	U	0.2	U																
VOCs	Chloromethane	74-87-3	mg/kg		0.0039	U	0.41	U																
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg		0.002	U	0.2	U																
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg		0.002	U	0.2	U																
VOCs	Dibromomethane	74-95-3	mg/kg		0.002	U	0.2	U																
VOCs	Dichlorobromomethane	75-27-4	mg/kg		0.002	U	0.2	U																
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg		0.002	U	0.2	U																
VOCs	DIETHYL ETHER	60-29-7	mg/kg		0.002	U	0.2	U																
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg		0.002	U	0.2	U																
VOCs	Ethylbenzene	100-41-4	mg/kg		0.015		0.2	U																
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg		0.002	U	0.2	U																
VOCs	Hexachlorobutadiene	87-68-3	mg/kg		0.002	U	0.2	U																
VOCs	Hexanal	0066-25-1	mg/kg																					
VOCs	Isopropylbenzene	98-82-8	mg/kg		0.002	U	0.2	U																
VOCs	m&p-Xylenes	NA	mg/kg		0.073		0.2	U																
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg		0.016	U	1.6	U																
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg		0.0039	U	0.41	U																
VOCs	Methylene Chloride	75-09-2	mg/kg		0.0039	U	0.41	U																
VOCs	n-Butylbenzene	104-51-8	mg/kg		0.002	U	0.2	U																
VOCs	N-Propylbenzene	103-65-1	mg/kg		0.002	U	0.2	U																
VOCs	Naphthalene	91-20-3	mg/kg		0.02	U	2	U																
VOCs	o-Xylene	95-47-6	mg/kg		0.002	U	0.2	U																
VOCs	sec-Butylbenzene	135-98-8	mg/kg		0.002	U	0.2	U																
VOCs	Styrene	100-42-5	mg/kg		0.002	U	0.2	U																
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg		0.002	U	0.2	U																
VOCs	tert-Butylbenzene	98-06-6	mg/kg		0.002	U	0.2	U																
VOCs	Tetrachloroethene	127-18-4	mg/kg		0.002	U	0.2	U																
VOCs	Tetrahydrofuran	109-99-9	mg/kg		0.013	U	1.4	U																
VOCs	Toluene	108-88-3	mg/kg		0.002	U	0.2	U																
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg		0.002	U	0.2	U																
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg		0.002	U	0.2	U																
VOCs	Trichloroethene	79-01-6	mg/kg		0.002	U	0.2	U																
VOCs	Trichlorofluoromethane	75-69-4	mg/kg		0.002	U	0.2	U																
VOCs	Vinyl chloride	75-01-4	mg/kg		0.0039	U	0.41	U																
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																					
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																					
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																					
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																					
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																					
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																					
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																					
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																					
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																					
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																					
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																					
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																					
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																					
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																					
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																					
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																					

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-58		B-59		B-59		B-61		B-61		B-62		B-62		B-63		B-65		B-65	
			Field Sample ID	C100604-B58-S8		C100604-B59-S4		C100604-B59-S5		C100604-B61-S1		C100604-B61-S2		C100604-B62-S2		C100604-B62-S3		C100604-B63-S4		C100604-B65-S3		C100604-B65-S4	
			Sample Start Depth	14		5		6		0		2		2		4		6		4		6	
			Sample End Depth	14.83		6		6.83		2		3.25		4		5.92		6.42		6		8	
			Sample Date	10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-58		B-59		B-59		B-61		B-61		B-62		B-62		B-63		B-65		B-65	
			Field Sample ID	C100604-B58-S8		C100604-B59-S4		C100604-B59-S5		C100604-B61-S1		C100604-B61-S2		C100604-B62-S2		C100604-B62-S3		C100604-B63-S4		C100604-B65-S3		C100604-B65-S4	
			Sample Start Depth	14		5		6		0		2		2		4		6		4		6	
			Sample End Depth	14.83		6		6.83		2		3.25		4		5.92		6.42		6		8	
			Sample Date	10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg	1.1	U			3.9		1.2	U	1.2	U	2.4	U	2.2	U	2.4	U	2.3	U	2.6	U
Metals	Arsenic	7440-38-2	mg/kg	14				47		44		35		30		190		17		30		97	
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg	0.11	U			0.1	U	0.12	U	0.12	U	0.24	U	0.22	U	0.24	U	0.23	U	0.26	U
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	80				210		61		290		200		420		130		190		82	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg	14				200		32		110		550		1100		190		350		74	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	1.9				0.34	U	1.2		54		7.4		4.5		3.8		11		5.8	
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg	4.4				1,500		11		100		20		31		10		35		12	
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-66		B-66		B-67		B-67		B-68		B-68		B-68		B-69		B-69		B-69		B-70	
			Field Sample ID	C100704-B66-S2		C100704-B66-S3		C100704-B67-S1		C100704-B67-S2		C100704-B68-S3		C100704-B68-S4		C100704-B68-S6		C100704-B69-S3		C100704-B69-S5		C100704-B69-S6		C100704-B70-S3	
			Sample Start Depth	2		4		0.25		2		4		6		10		4		8		10		4	
			Sample End Depth	4		5.83		2		3.92		6		8		10.92		6		10		11.92		6	
			Sample Date	10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,4-Dioxane	123-91-1	mg/kg															0.24	U	0.23	U	0.24	U	0.23	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	2-Hexanone	591-78-6	mg/kg															0.019	U	0.018	U	0.019	U	0.018	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg															0.019	U	0.018	U	0.019	U	0.018	U
VOCs	Acetone	67-64-1	mg/kg															0.24	U	0.23	U	0.24	U	0.23	U
VOCs	Benzene	71-43-2	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Bromobenzene	108-86-1	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Bromoform	75-25-2	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Bromomethane	74-83-9	mg/kg															0.0048	U	0.0045	U	0.0047	U	0.0045	U
VOCs	Carbon disulfide	75-15-0	mg/kg															0.048	U	0.045	U	0.047	U	0.045	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Chlorobenzene	108-90-7	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Chlorobromomethane	74-97-5	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Chloroethane	75-00-3	mg/kg															0.0048	U	0.0045	U	0.0047	U	0.0045	U
VOCs	Chloroform	67-66-3	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Chloromethane	74-87-3	mg/kg															0.0048	U	0.0045	U	0.0047	U	0.0045	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Dibromomethane	74-95-3	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Ethylbenzene	100-41-4	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	m&p-Xylenes	NA	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg															0.019	U	0.018	U	0.019	U	0.018	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg															0.0048	U	0.0045	U	0.0047	U	0.0045	U
VOCs	Methylene Chloride	75-09-2	mg/kg															0.0048	U	0.0045	U	0.0047	U	0.0045	U
VOCs	n-Butylbenzene	104-51-8	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	N-Propylbenzene	103-65-1	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Naphthalene	91-20-3	mg/kg															0.024	U	0.023	U	0.024	U	0.023	U
VOCs	o-Xylene	95-47-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Styrene	100-42-5	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Tetrachloroethene	127-18-4	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg															0.017	U	0.016	U	0.016	U	0.016	U
VOCs	Toluene	108-88-3	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Trichloroethene	79-01-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Vinyl chloride	75-01-4	mg/kg															0.0048	U	0.0045	U	0.0047	U	0.0045	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-66		B-66		B-67		B-67		B-68		B-68		B-68		B-69		B-69		B-69		B-70	
			Field Sample ID	C100704-B66-S2		C100704-B66-S3		C100704-B67-S1		C100704-B67-S2		C100704-B68-S3		C100704-B68-S4		C100704-B68-S6		C100704-B69-S3		C100704-B69-S5		C100704-B69-S6		C100704-B70-S3	
			Sample Start Depth	2		4		0.25		2		4		6		10		4		8		10		4	
			Sample End Depth	4		5.83		2		3.92		6		8		10.92		6		10		11.92		6	
			Sample Date	10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

				Location ID	B-66		B-66		B-67		B-67		B-68		B-68		B-68		B-69		B-69		B-69		B-70	
				Field Sample ID	C100704-B66-S2		C100704-B66-S3		C100704-B67-S1		C100704-B67-S2		C100704-B68-S3		C100704-B68-S4		C100704-B68-S6		C100704-B69-S3		C100704-B69-S5		C100704-B69-S6		C100704-B70-S3	
				Sample Start Depth	2		4		0.25		2		4		6		10		4		8		10		4	
				Sample End Depth	4		5.83		2		3.92		6		8		10.92		6		10		11.92		6	
				Sample Date	10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																							
VPH	Ethylbenzene	100-41-4	mg/kg																							
VPH	m&p-Xylenes	NA	mg/kg																							
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																							
VPH	Naphthalene	91-20-3	mg/kg																							
VPH	o-Xylene	95-47-6	mg/kg																							
VPH	Toluene	108-88-3	mg/kg																							
VPH	Total VPH	NA	mg/kg																							
Metals	Aluminum	7429-90-5	mg/kg																							
Metals	Antimony	7440-36-0	mg/kg		2.5	U	2.4	U	2.4	U	2.4	U	2.3	U	2.2	U	2.4	U	2.2	U	2.2	U	2.5	U	2.3	U
Metals	Arsenic	7440-38-2	mg/kg		78		170		48		75		39		82		37		39		40		72		22	
Metals	Barium	7440-39-3	mg/kg																							
Metals	Beryllium	7440-41-7	mg/kg		0.25	U	0.24	U	0.24	U	0.24	U	0.23	U	0.22	U	0.24	U	0.22	U	0.22	U	0.25	U	0.23	U
Metals	Cadmium	7440-43-9	mg/kg																							
Metals	Calcium	7440-70-2	mg/kg																							
Metals	Chromium	7440-47-3	mg/kg		70		460		72		690		42		53		680		690		340		1000		26	
Metals	Cobalt	7440-48-4	mg/kg																							
Metals	Copper	7440-50-8	mg/kg		26		310		31		350		14		20		410		140		140		280		26	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg		1.3		6.1		6		1.5		6.2		0.48		120		50		27		70		0.92	
Metals	Iron	7439-89-6	mg/kg																							
Metals	Lead	7439-92-1	mg/kg		9.4		8.1		11		8		5.6		7.9		15		15		9.6		17		8.1	
Metals	Magnesium	7439-95-4	mg/kg																							
Metals	Manganese	7439-96-5	mg/kg																							
Metals	Mercury	7439-97-6	mg/kg																							
Metals	Nickel	7440-02-0	mg/kg																							
Metals	Potassium	7440-09-7	mg/kg																							
Metals	Selenium	7782-49-2	mg/kg																							
Metals	Silver	7440-22-4	mg/kg																							
Metals	Sodium	7440-23-5	mg/kg																							
Metals	Thallium	7440-28-0	mg/kg																							
Metals	Vanadium	7440-62-2	mg/kg																							
Metals	Zinc	7440-66-6	mg/kg																							
Cyanide	Cyanide, Reactive	NA	mg/kg																							
Other	Sulfide, Reactive	NA	mg/kg																							
Other	TOTAL ORGANIC CARBON	NA	mg/kg																							
TIC	.alpha.-Pinene	NA	mg/kg																							
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																							
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																							
TIC	1-4-Methanonaphthalene	NA	mg/kg																							
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																							
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																							
TIC	1-Methyl-Pyrene	NA	mg/kg																							
TIC	1S-.alpha.-Pinene	NA	mg/kg																							
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																							
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																							
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																							
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																							
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																							
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																							
TIC	2-Methylanthracene	613-12-7	mg/kg																							
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																							
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																							
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																							
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																							
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																							
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																							
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																							
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																							
TIC	Cyclic octaatomic sulfur	NA	mg/kg																							
TIC	Cyclopentane, methyl-	NA	mg/kg																							
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																							
TIC	Hexanal	0066-25-1	mg/kg																							
TIC	Pentane, 2-methyl-	NA	mg/kg																							
TIC	Pentane, 3-methyl-	NA	mg/kg																							
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																							

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-70		B-70		B-71		B-71		B-71		B-72		B-73		B-74		B-74		B-74		B-75	
			Field Sample ID	C100704-B70-S4		C100704-B70-S7		C100804-B71-S2		C100804-B71-S4		C100804-B71-S8		C101104-B72-S2A		C101104-B73-S2A		C101104-B74-S2		C101104-B74-S4		C101104-B74-S6		C101104-B75-S3	
			Sample Start Depth	6		12		2		6		14		5		5		2		6		10		4	
			Sample End Depth	8		13.42		4		8		15.08		6.5		6		4		8		12		6	
			Sample Date	10/7/2004		10/7/2004		10/8/2004		10/8/2004		10/8/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.22	U	0.22	U	0.24	U	0.21	U	0.23	U												
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	2-Hexanone	591-78-6	mg/kg	0.018	U	0.018	U	0.02	U	0.016	U	0.018	U												
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.018	U	0.018	U	0.02	U	0.016	U	0.018	U												
VOCs	Acetone	67-64-1	mg/kg	0.22	U	0.22	U	0.24	U	0.21	U	0.23	U												
VOCs	Benzene	71-43-2	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Bromobenzene	108-86-1	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Bromoform	75-25-2	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Bromomethane	74-83-9	mg/kg	0.0044	U	0.0044	U	0.0049	U	0.0041	U	0.0045	U												
VOCs	Carbon disulfide	75-15-0	mg/kg	0.044	U	0.044	U	0.049	U	0.041	U	0.045	U												
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Chloroethane	75-00-3	mg/kg	0.0044	U	0.0044	U	0.0049	U	0.0041	U	0.0045	U												
VOCs	Chloroform	67-66-3	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Chloromethane	74-87-3	mg/kg	0.0044	U	0.0044	U	0.0049	U	0.0041	U	0.0045	U												
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0041													
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Dibromomethane	74-95-3	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	m&p-Xylenes	NA	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.018	U	0.018	U	0.02	U	0.016	U	0.018	U												
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0044	U	0.0044	U	0.0049	U	0.0041	U	0.0045	U												
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0044	U	0.0044	U	0.0049	U	0.0041	U	0.0045	U												
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Naphthalene	91-20-3	mg/kg	0.022	U	0.022	U	0.024	U	0.021	U	0.023	U												
VOCs	o-Xylene	95-47-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Styrene	100-42-5	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.015	U	0.015	U	0.017	U	0.014	U	0.016	U												
VOCs	Toluene	108-88-3	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Trichloroethene	79-01-6	mg/kg	0.0022	U	0.0022	U	0.033		0.0032		0.008													
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0044	U	0.0044	U	0.0049	U	0.0041	U	0.0045	U												
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-70		B-70		B-71		B-71		B-71		B-72		B-73		B-74		B-74		B-74		B-75	
			Field Sample ID	C100704-B70-S4		C100704-B70-S7		C100804-B71-S2		C100804-B71-S4		C100804-B71-S8		C101104-B72-S2A		C101104-B73-S2A		C101104-B74-S2		C101104-B74-S4		C101104-B74-S6		C101104-B75-S3	
			Sample Start Depth	6		12		2		6		14		5		5		2		6		10		4	
			Sample End Depth	8		13.42		4		8		15.08		6.5		6		4		8		12		6	
			Sample Date	10/7/2004		10/7/2004		10/8/2004		10/8/2004		10/8/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-70		B-70		B-71		B-71		B-71		B-72		B-73		B-74		B-74		B-74		B-75	
			Field Sample ID	C100704-B70-S4		C100704-B70-S7		C100804-B71-S2		C100804-B71-S4		C100804-B71-S8		C101104-B72-S2A		C101104-B73-S2A		C101104-B74-S2		C101104-B74-S4		C101104-B74-S6		C101104-B75-S3	
			Sample Start Depth	6		12		2		6		14		5		5		2		6		10		4	
			Sample End Depth	8		13.42		4		8		15.08		6.5		6		4		8		12		6	
			Sample Date	10/7/2004		10/7/2004		10/8/2004		10/8/2004		10/8/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																						
VPH	Ethylbenzene	100-41-4	mg/kg																						
VPH	m&p-Xylenes	NA	mg/kg																						
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VPH	Naphthalene	91-20-3	mg/kg																						
VPH	o-Xylene	95-47-6	mg/kg																						
VPH	Toluene	108-88-3	mg/kg																						
VPH	Total VPH	NA	mg/kg																						
Metals	Aluminum	7429-90-5	mg/kg																						
Metals	Antimony	7440-36-0	mg/kg	3		2.2	U	2.3	U	2.3	U	1.2	U	4.1		4		0.57	B	0.3	B	1.4	B	0.78	B
Metals	Arsenic	7440-38-2	mg/kg	50		59		76		19		23		37		36		17		23		75		56	
Metals	Barium	7440-39-3	mg/kg																						
Metals	Beryllium	7440-41-7	mg/kg	0.23	U	0.22	U	0.23	U	0.23	U	0.12	U	0.22	U	0.049	B	0.24	U	0.04	B	0.24	U	0.27	U
Metals	Cadmium	7440-43-9	mg/kg																						
Metals	Calcium	7440-70-2	mg/kg																						
Metals	Chromium	7440-47-3	mg/kg	710		260		160		120		45		1100		1100		22		39		910		560	
Metals	Cobalt	7440-48-4	mg/kg																						
Metals	Copper	7440-50-8	mg/kg	190		160		170		260		120		290		140		12		18		390		95	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	22		30		9.7		5.5		4.6		330		220		2.9	U	0.28		130		11	
Metals	Iron	7439-89-6	mg/kg																						
Metals	Lead	7439-92-1	mg/kg	4.1		9.2		6.6		4		5.2		110		31		5.8		6.2		9.7		5.2	
Metals	Magnesium	7439-95-4	mg/kg																						
Metals	Manganese	7439-96-5	mg/kg																						
Metals	Mercury	7439-97-6	mg/kg																						
Metals	Nickel	7440-02-0	mg/kg																						
Metals	Potassium	7440-09-7	mg/kg																						
Metals	Selenium	7782-49-2	mg/kg																						
Metals	Silver	7440-22-4	mg/kg																						
Metals	Sodium	7440-23-5	mg/kg																						
Metals	Thallium	7440-28-0	mg/kg																						
Metals	Vanadium	7440-62-2	mg/kg																						
Metals	Zinc	7440-66-6	mg/kg																						
Cyanide	Cyanide, Reactive	NA	mg/kg																						
Other	Sulfide, Reactive	NA	mg/kg																						
Other	TOTAL ORGANIC CARBON	NA	mg/kg																						
TIC	.alpha.-Pinene	NA	mg/kg																						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																						
TIC	1-4-Methanonaphthalene	NA	mg/kg																						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																						
TIC	1-Methyl-Pyrene	NA	mg/kg																						
TIC	1S-.alpha.-Pinene	NA	mg/kg																						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																						
TIC	2-Methylanthracene	613-12-7	mg/kg																						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																						
TIC	Cyclic octaatomic sulfur	NA	mg/kg																						
TIC	Cyclopentane, methyl-	NA	mg/kg																						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																						
TIC	Hexanal	0066-25-1	mg/kg																						
TIC	Pentane, 2-methyl-	NA	mg/kg																						
TIC	Pentane, 3-methyl-	NA	mg/kg																						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-75		B-75		B-76		B-76		B-76		B-77		B-77		B-77		B-78		B-78		B-78	
			Field Sample ID	C101104-B75-S4		C101104-B75-S5		C101204-B76-S3		C101204-B76-S5		C101204-B76-S7		C101204-B77-S3		C101204-B77-S5		C101204-B77-S6		C101204-B78-S3		C101204-B78-S5		C101204-B78-S6	
			Sample Start Depth	6		8		4		8		12		4		8		10		4		8		10	
			Sample End Depth	8		10		6		10		12.92		6		10		12		6		10		11.42	
			Sample Date	10/11/2004		10/11/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																	0.004	U				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																	0.004	U				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																	0.004	U				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																	0.004	U				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																	0.004	U				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																	0.004	U				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																	0.004	U				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																	0.004	U				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																	0.004	U				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																	0.004	U				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																	0.004	U				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																	0.004	U				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																	0.004	U				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																	0.004	U				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																	0.004	U				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																	0.004	U				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																	0.004	U				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																	0.004	U				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																	0.004	U				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																	0.004	U				
VOCs	1,4-Dioxane	123-91-1	mg/kg																	0.4	U				
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																	0.004	U				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																	0.004	U				
VOCs	2-Hexanone	591-78-6	mg/kg																	0.032	U				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																	0.004	U				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																	0.004	U				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																	0.032	U				
VOCs	Acetone	67-64-1	mg/kg																	0.4	U				
VOCs	Benzene	71-43-2	mg/kg																	0.004	U				
VOCs	Bromobenzene	108-86-1	mg/kg																	0.004	U				
VOCs	Bromoform	75-25-2	mg/kg																	0.004	U				
VOCs	Bromomethane	74-83-9	mg/kg																	0.008	U				
VOCs	Carbon disulfide	75-15-0	mg/kg																	0.08	U				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																	0.004	U				
VOCs	Chlorobenzene	108-90-7	mg/kg																	0.004	U				
VOCs	Chlorobromomethane	74-97-5	mg/kg																	0.004	U				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																	0.004	U				
VOCs	Chloroethane	75-00-3	mg/kg																	0.008	U				
VOCs	Chloroform	67-66-3	mg/kg																	0.004	U				
VOCs	Chloromethane	74-87-3	mg/kg																	0.008	U				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																	0.004	U				
VOCs	Chloroethane	75-00-3	mg/kg																	0.008	U				
VOCs	Chloroform	67-66-3	mg/kg																	0.004	U				
VOCs	Chloromethane	74-87-3	mg/kg																	0.008	U				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																	0.004	U				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																	0.004	U				
VOCs	Dibromomethane	74-95-3	mg/kg																	0.004	U				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																	0.004	U				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																	0.004	U				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																	0.004	U				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																	0.004	U				
VOCs	Ethylbenzene	100-41-4	mg/kg																	0.004	U				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																	0.004	U				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																	0.004	U				
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg																	0.004	U				
VOCs	m&p-Xylenes	NA	mg/kg																	0.004	U				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																	0.032	U				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																	0.008	U				
VOCs	Methylene Chloride	75-09-2	mg/kg																	0.008	U				
VOCs	n-Butylbenzene	104-51-8	mg/kg																	0.004	U				
VOCs	N-Propylbenzene	103-65-1	mg/kg																	0.004	U				
VOCs	Naphthalene	91-20-3	mg/kg																	0.04	U				
VOCs	o-Xylene	95-47-6	mg/kg																	0.004	U				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																	0.004	U				
VOCs	Styrene	100-42-5	mg/kg																	0.004	U				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																	0.004	U				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																	0.004	U				
VOCs	Tetrachloroethene	127-18-4	mg/kg																	0.004	U				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																	0.027	U				
VOCs	Toluene	108-88-3	mg/kg																	0.004	U				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																	0.004	U				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																	0.004	U				
VOCs	Trichloroethene	79-01-6	mg/kg																	0.004	U				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																	0.004	U				
VOCs	Vinyl chloride	75-01-4	mg/kg																	0.008	U				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-75		B-75		B-76		B-76		B-76		B-77		B-77		B-77		B-78		B-78		B-78	
			Field Sample ID	C101104-B75-S4		C101104-B75-S5		C101204-B76-S3		C101204-B76-S5		C101204-B76-S7		C101204-B77-S3		C101204-B77-S5		C101204-B77-S6		C101204-B78-S3		C101204-B78-S5		C101204-B78-S6	
			Sample Start Depth	6		8		4		8		12		4		8		10		4		8		10	
			Sample End Depth	8		10		6		10		12.92		6		10		12		6		10		11.42	
			Sample Date	10/11/2004		10/11/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-75		B-75		B-76		B-76		B-76		B-77		B-77		B-77		B-78		B-78		B-78	
			Field Sample ID	C101104-B75-S4		C101104-B75-S5		C101204-B76-S3		C101204-B76-S5		C101204-B76-S7		C101204-B77-S3		C101204-B77-S5		C101204-B77-S6		C101204-B78-S3		C101204-B78-S5		C101204-B78-S6	
			Sample Start Depth	6		8		4		8		12		4		8		10		4		8		10	
			Sample End Depth	8		10		6		10		12.92		6		10		12		6		10		11.42	
			Sample Date	10/11/2004		10/11/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																						
VPH	Ethylbenzene	100-41-4	mg/kg																						
VPH	m&p-Xylenes	NA	mg/kg																						
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VPH	Naphthalene	91-20-3	mg/kg																						
VPH	o-Xylene	95-47-6	mg/kg																						
VPH	Toluene	108-88-3	mg/kg																						
VPH	Total VPH	NA	mg/kg																						
Metals	Aluminum	7429-90-5	mg/kg																						
Metals	Antimony	7440-36-0	mg/kg	0.95	B	0.54	B	1.3	B	0.93	B	0.92	B	1.3	B	1.5	B	1.3	B	1.2	B	1.1	B	0.8	B
Metals	Arsenic	7440-38-2	mg/kg	37		27		42		16		23		44		63		40		23		23		15	
Metals	Barium	7440-39-3	mg/kg																						
Metals	Beryllium	7440-41-7	mg/kg	0.27	U	0.12	B	0.23	U	0.091	B	0.043	B	0.26	U	0.29		0.27	U	0.29	U	0.26	U	0.23	U
Metals	Cadmium	7440-43-9	mg/kg																						
Metals	Calcium	7440-70-2	mg/kg																						
Metals	Chromium	7440-47-3	mg/kg	100		100		690		73		78		1200		710		890		1500		800		370	
Metals	Cobalt	7440-48-4	mg/kg																						
Metals	Copper	7440-50-8	mg/kg	200		170		45		44		25		71		160		550		130		95		85	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	4.4		11		72		4.5		13		90		22		40		0.19	U	25		47	
Metals	Iron	7439-89-6	mg/kg																						
Metals	Lead	7439-92-1	mg/kg	8.5		8.1		19		5.6		11		11		10		15		180		8		13	
Metals	Magnesium	7439-95-4	mg/kg																						
Metals	Manganese	7439-96-5	mg/kg																						
Metals	Mercury	7439-97-6	mg/kg																						
Metals	Nickel	7440-02-0	mg/kg																						
Metals	Potassium	7440-09-7	mg/kg																						
Metals	Selenium	7782-49-2	mg/kg																						
Metals	Silver	7440-22-4	mg/kg																						
Metals	Sodium	7440-23-5	mg/kg																						
Metals	Thallium	7440-28-0	mg/kg																						
Metals	Vanadium	7440-62-2	mg/kg																						
Metals	Zinc	7440-66-6	mg/kg																						
Cyanide	Cyanide, Reactive	NA	mg/kg																						
Other	Sulfide, Reactive	NA	mg/kg																						
Other	TOTAL ORGANIC CARBON	NA	mg/kg																						
TIC	.alpha.-Pinene	NA	mg/kg																						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																						
TIC	1-4-Methanonaphthalene	NA	mg/kg																						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																						
TIC	1-Methyl-Pyrene	NA	mg/kg																						
TIC	1S-.alpha.-Pinene	NA	mg/kg																						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																						
TIC	2-Methylanthracene	613-12-7	mg/kg																						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																						
TIC	Cyclic octaatomic sulfur	NA	mg/kg																						
TIC	Cyclopentane, methyl-	NA	mg/kg																						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																						
TIC	Hexanal	0066-25-1	mg/kg																						
TIC	Pentane, 2-methyl-	NA	mg/kg																						
TIC	Pentane, 3-methyl-	NA	mg/kg																						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-80		B-80		B-80		B-81		B-82		B-82		B-82		B-83		B-83		B-83		B-84	
			Field Sample ID	C101304-B80-S3		C101304-B80-S4		C101304-B80-S5		C101304-B81-S5		C101304-B82-S3		C101304-B82-S4		C101304-B82-S6		C101304-B83-S3		C101304-B83-S5		C101304-B83-S6		C101404-B84-S2	
			Sample Start Depth	4		6		8		10		4		6		10		4		8		10		2	
			Sample End Depth	6		8		10		12		6		8		10.67		6		10		12		4	
			Sample Date	10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/14/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.3	U			0.2	U															0.21	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.024	U			0.016	U															0.017	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.024	U			0.016	U															0.017	U
VOCs	Acetone	67-64-1	mg/kg	0.3	U			0.2	U															0.21	U
VOCs	Benzene	71-43-2	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Bromoform	75-25-2	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Bromomethane	74-83-9	mg/kg	0.0059	U			0.004	U															0.0041	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.059	U			0.04	U															0.041	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Chloroethane	75-00-3	mg/kg	0.0059	U			0.004	U															0.0041	U
VOCs	Chloroform	67-66-3	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Chloromethane	74-87-3	mg/kg	0.0059	U			0.004	U															0.0041	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.003	U			0.002	U															0.0074	
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.003	U			0.002	U															0.0037	
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	m&p-Xylenes	NA	mg/kg	0.003	U			0.002	U															0.013	
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.024	U			0.016	U															0.017	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0059	U			0.004	U															0.0041	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0059	U			0.004	U															0.0041	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Naphthalene	91-20-3	mg/kg	0.03	U			0.02	U															0.021	U
VOCs	o-Xylene	95-47-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Styrene	100-42-5	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.02	U			0.014	U															0.014	U
VOCs	Toluene	108-88-3	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0059	U			0.004	U															0.0041	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-80		B-80		B-80		B-81		B-82		B-82		B-82		B-83		B-83		B-83		B-84	
			Field Sample ID	C101304-B80-S3		C101304-B80-S4		C101304-B80-S5		C101304-B81-S5		C101304-B82-S3		C101304-B82-S4		C101304-B82-S6		C101304-B83-S3		C101304-B83-S5		C101304-B83-S6		C101404-B84-S2	
			Sample Start Depth	4		6		8		10		4		6		10		4		8		10		2	
			Sample End Depth	6		8		10		12		6		8		10.67		6		10		12		4	
			Sample Date	10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/14/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-80		B-80		B-80		B-81		B-82		B-82		B-82		B-83		B-83		B-83		B-84	
			Field Sample ID	C101304-B80-S3		C101304-B80-S4		C101304-B80-S5		C101304-B81-S5		C101304-B82-S3		C101304-B82-S4		C101304-B82-S6		C101304-B83-S3		C101304-B83-S5		C101304-B83-S6		C101404-B84-S2	
			Sample Start Depth	4		6		8		10		4		6		10		4		8		10		2	
			Sample End Depth	6		8		10		12		6		8		10.67		6		10		12		4	
			Sample Date	10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/14/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																						
VPH	Ethylbenzene	100-41-4	mg/kg																						
VPH	m&p-Xylenes	NA	mg/kg																						
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VPH	Naphthalene	91-20-3	mg/kg																						
VPH	o-Xylene	95-47-6	mg/kg																						
VPH	Toluene	108-88-3	mg/kg																						
VPH	Total VPH	NA	mg/kg																						
Metals	Aluminum	7429-90-5	mg/kg																						
Metals	Antimony	7440-36-0	mg/kg	1.8	B	1	B	0.81	B	1.3	B	0.92	B	0.45	B	1.3	B	0.54	B	0.75	B	0.66	B	0.47	B
Metals	Arsenic	7440-38-2	mg/kg	41		30		26		30		30		28		13		23		17		16		14	
Metals	Barium	7440-39-3	mg/kg																						
Metals	Beryllium	7440-41-7	mg/kg	0.28	U	0.25	U	0.072	B	0.24	U	0.23	U	0.26	U	0.26	U	0.086	B	0.065	B	0.26	U	0.03	B
Metals	Cadmium	7440-43-9	mg/kg																						
Metals	Calcium	7440-70-2	mg/kg																						
Metals	Chromium	7440-47-3	mg/kg	1700		680		470		1200		56		36		70		26		36		100		160	
Metals	Cobalt	7440-48-4	mg/kg																						
Metals	Copper	7440-50-8	mg/kg	93		93		360		1100		18		11		170		12		85		75		130	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	17		16		20		110		2.3		0.23		19		0.36		2.6		3.4		12	
Metals	Iron	7439-89-6	mg/kg																						
Metals	Lead	7439-92-1	mg/kg	7.6		7.5		4.4		11		7.2		4.9		5.4		5.2		4.5		9.5		21	
Metals	Magnesium	7439-95-4	mg/kg																						
Metals	Manganese	7439-96-5	mg/kg																						
Metals	Mercury	7439-97-6	mg/kg																						
Metals	Nickel	7440-02-0	mg/kg																						
Metals	Potassium	7440-09-7	mg/kg																						
Metals	Selenium	7782-49-2	mg/kg																						
Metals	Silver	7440-22-4	mg/kg																						
Metals	Sodium	7440-23-5	mg/kg																						
Metals	Thallium	7440-28-0	mg/kg																						
Metals	Vanadium	7440-62-2	mg/kg																						
Metals	Zinc	7440-66-6	mg/kg																						
Cyanide	Cyanide, Reactive	NA	mg/kg																						
Other	Sulfide, Reactive	NA	mg/kg																						
Other	TOTAL ORGANIC CARBON	NA	mg/kg																						
TIC	.alpha.-Pinene	NA	mg/kg																						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																						
TIC	1-4-Methanonaphthalene	NA	mg/kg																						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																						
TIC	1-Methyl-Pyrene	NA	mg/kg																						
TIC	1S-.alpha.-Pinene	NA	mg/kg																						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																						
TIC	2-Methylanthracene	613-12-7	mg/kg																						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																						
TIC	Cyclic octaatomic sulfur	NA	mg/kg																						
TIC	Cyclopentane, methyl-	NA	mg/kg																						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																						
TIC	Hexanal	0066-25-1	mg/kg																						
TIC	Pentane, 2-methyl-	NA	mg/kg																						
TIC	Pentane, 3-methyl-	NA	mg/kg																						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-84		B-84		B-85		B-85		B-85		B-88		B-88		B-88		B-89		B-89		B-89	
			Field Sample ID	C101404-B84-S4		C101404-B84-S6		C101404-B85-S2		C101404-B85-S3		C101404-B85-S5		C101504-B88-S1		C101504-B88-S2		C101504-B88-S3		C101504-B89-S1		C101504-B89-S2		C101504-B89-S3	
			Sample Start Depth	6		10		2		4		8		0		2		4		0		2		4	
			Sample End Depth	8		12		4		6		10		2		4		6		2		4		6	
			Sample Date	10/14/2004		10/14/2004		10/14/2004		10/14/2004		10/14/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0023	U	0.002	U																		
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0023	U	0.002	U																		
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0023	U	0.002	U																		
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0023	U	0.002	U																		
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0023	U	0.002	U																		
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0023	U	0.002	U																		
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0023	U	0.002	U																		
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0023	U	0.002	U																		
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0023	U	0.002	U																		
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0023	U	0.002	U																		
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0023	U	0.002	U																		
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.23	U	0.2	U																		
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0023	U	0.002	U																		
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0023	U	0.002	U																		
VOCs	2-Hexanone	591-78-6	mg/kg	0.018	U	0.016	U																		
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0023	U	0.002	U																		
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0023	U	0.002	U																		
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.018	U	0.016	U																		
VOCs	Acetone	67-64-1	mg/kg	0.23	U	0.2	U																		
VOCs	Benzene	71-43-2	mg/kg	0.0023	U	0.002	U																		
VOCs	Bromobenzene	108-86-1	mg/kg	0.0023	U	0.002	U																		
VOCs	Bromoform	75-25-2	mg/kg	0.0023	U	0.002	U																		
VOCs	Bromomethane	74-83-9	mg/kg	0.0045	U	0.004	U																		
VOCs	Carbon disulfide	75-15-0	mg/kg	0.045	U	0.04	U																		
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0023	U	0.002	U																		
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0023	U	0.002	U																		
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0023	U	0.002	U																		
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0023	U	0.002	U																		
VOCs	Chloroethane	75-00-3	mg/kg	0.0045	U	0.004	U																		
VOCs	Chloroform	67-66-3	mg/kg	0.0023	U	0.002	U																		
VOCs	Chloromethane	74-87-3	mg/kg	0.0045	U	0.004	U																		
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0023	U	0.0031																			
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0023	U	0.002	U																		
VOCs	Dibromomethane	74-95-3	mg/kg	0.0023	U	0.002	U																		
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0023	U	0.002	U																		
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0023	U	0.002	U																		
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0023	U	0.002	U																		
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0023	U	0.002	U																		
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0023	U	0.002	U																		
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0023	U	0.002	U																		
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0023	U	0.002	U																		
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0023	U	0.002	U																		
VOCs	m&p-Xylenes	NA	mg/kg	0.0023	U	0.002	U																		
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.018	U	0.016	U																		
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0045	U	0.004	U																		
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0045	U	0.004	U																		
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0023	U	0.002	U																		
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0023	U	0.002	U																		
VOCs	Naphthalene	91-20-3	mg/kg	0.023	U	0.02	U																		
VOCs	o-Xylene	95-47-6	mg/kg	0.0023	U	0.002	U																		
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0023	U	0.002	U																		
VOCs	Styrene	100-42-5	mg/kg	0.0023	U	0.002	U																		
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0023	U	0.002	U																		
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0023	U	0.002	U																		
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0023	U	0.002	U																		
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.015	U	0.014	U																		
VOCs	Toluene	108-88-3	mg/kg	0.0023	U	0.002	U																		
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0023	U	0.002	U																		
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0023	U	0.002	U																		
VOCs	Trichloroethene	79-01-6	mg/kg	0.0023	U	0.0085																			
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0023	U	0.002	U																		
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0045	U	0.004	U																		
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-84		B-84		B-85		B-85		B-85		B-88		B-88		B-88		B-89		B-89		B-89	
			Field Sample ID	C101404-B84-S4		C101404-B84-S6		C101404-B85-S2		C101404-B85-S3		C101404-B85-S5		C101504-B88-S1		C101504-B88-S2		C101504-B88-S3		C101504-B89-S1		C101504-B89-S2		C101504-B89-S3	
			Sample Start Depth	6		10		2		4		8		0		2		4		0		2		4	
			Sample End Depth	8		12		4		6		10		2		4		6		2		4		6	
			Sample Date	10/14/2004		10/14/2004		10/14/2004		10/14/2004		10/14/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-84		B-84		B-85		B-85		B-85		B-88		B-88		B-88		B-89		B-89		B-89	
			Field Sample ID	C101404-B84-S4		C101404-B84-S6		C101404-B85-S2		C101404-B85-S3		C101404-B85-S5		C101504-B88-S1		C101504-B88-S2		C101504-B88-S3		C101504-B89-S1		C101504-B89-S2		C101504-B89-S3	
			Sample Start Depth	6		10		2		4		8		0		2		4		0		2		4	
			Sample End Depth	8		12		4		6		10		2		4		6		2		4		6	
			Sample Date	10/14/2004		10/14/2004		10/14/2004		10/14/2004		10/14/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																						
VPH	Ethylbenzene	100-41-4	mg/kg																						
VPH	m&p-Xylenes	NA	mg/kg																						
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VPH	Naphthalene	91-20-3	mg/kg																						
VPH	o-Xylene	95-47-6	mg/kg																						
VPH	Toluene	108-88-3	mg/kg																						
VPH	Total VPH	NA	mg/kg																						
Metals	Aluminum	7429-90-5	mg/kg																						
Metals	Antimony	7440-36-0	mg/kg	0.28	B	0.63	B	0.26	B	0.26	B	0.66	B	0.26	B	2.7	U	0.46	B	0.33	B	0.23	B	0.62	B
Metals	Arsenic	7440-38-2	mg/kg	43		61		19		22		94		34		34		52		17		18		19	
Metals	Barium	7440-39-3	mg/kg																						
Metals	Beryllium	7440-41-7	mg/kg	0.11	B	0.026	B	0.087	B	0.043	B	0.15	U	0.13	B	0.044	B	0.24	U	0.22	U	0.26	U	0.25	U
Metals	Cadmium	7440-43-9	mg/kg																						
Metals	Calcium	7440-70-2	mg/kg																						
Metals	Chromium	7440-47-3	mg/kg	85		49		110		42		200		29		130		230		57		62		230	
Metals	Cobalt	7440-48-4	mg/kg																						
Metals	Copper	7440-50-8	mg/kg	17		130		100		12		630		15		160		430		15		91		310	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	3.4		10		19		7.8		16		0.25		17		37		0.22	U	2.4		13	
Metals	Iron	7439-89-6	mg/kg																						
Metals	Lead	7439-92-1	mg/kg	7		6.5		4.7		6.1		6.2		9.3		4.8		2.6		8.8		6		7	
Metals	Magnesium	7439-95-4	mg/kg																						
Metals	Manganese	7439-96-5	mg/kg																						
Metals	Mercury	7439-97-6	mg/kg																						
Metals	Nickel	7440-02-0	mg/kg																						
Metals	Potassium	7440-09-7	mg/kg																						
Metals	Selenium	7782-49-2	mg/kg																						
Metals	Silver	7440-22-4	mg/kg																						
Metals	Sodium	7440-23-5	mg/kg																						
Metals	Thallium	7440-28-0	mg/kg																						
Metals	Vanadium	7440-62-2	mg/kg																						
Metals	Zinc	7440-66-6	mg/kg																						
Cyanide	Cyanide, Reactive	NA	mg/kg																						
Other	Sulfide, Reactive	NA	mg/kg																						
Other	TOTAL ORGANIC CARBON	NA	mg/kg																						
TIC	.alpha.-Pinene	NA	mg/kg																						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																						
TIC	1-4-Methanonaphthalene	NA	mg/kg																						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																						
TIC	1-Methyl-Pyrene	NA	mg/kg																						
TIC	1S-.alpha.-Pinene	NA	mg/kg																						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																						
TIC	2-Methylanthracene	613-12-7	mg/kg																						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																						
TIC	Cyclic octaatomic sulfur	NA	mg/kg																						
TIC	Cyclopentane, methyl-	NA	mg/kg																						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																						
TIC	Hexanal	0066-25-1	mg/kg																						
TIC	Pentane, 2-methyl-	NA	mg/kg																						
TIC	Pentane, 3-methyl-	NA	mg/kg																						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-89		B-90		B-90		B-91		B-91		B-92		B-93		B-93A		B-94		B-95		B-96	
			Field Sample ID	C101504-B89-S5		C101504-B90-S1		C101504-B90-S2		C052405-B91S2		C052405-B91S2A		C052405-B92S2		C052405-B93S2A		C052405-B93AS2		C052405-B94S2		C052405-B95S2		C052405-B96S2	
			Sample Start Depth	8		0.25		2		4		6.6		5		5		4		4		4		4	
			Sample End Depth	10		2		2.75		6.6		7.5		7		7		5.4		6.2		5.5		6	
			Sample Date	10/15/2004		10/15/2004		10/15/2004		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																						
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																						
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																						
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																						
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																						
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																						
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																						
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																						
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																						
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																						
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																						
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																						
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																						
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																						
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																						
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																						
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
VOCs	1,4-Dioxane	123-91-1	mg/kg																						
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																						
VOCs	2-Chlorotoluene	95-49-8	mg/kg																						
VOCs	2-Hexanone	591-78-6	mg/kg																						
VOCs	4-Chlorotoluene	106-43-4	mg/kg																						
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																						
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																						
VOCs	Acetone	67-64-1	mg/kg																						
VOCs	Benzene	71-43-2	mg/kg																						
VOCs	Bromobenzene	108-86-1	mg/kg																						
VOCs	Bromoform	75-25-2	mg/kg																						
VOCs	Bromomethane	74-83-9	mg/kg																						
VOCs	Carbon disulfide	75-15-0	mg/kg																						
VOCs	Carbon tetrachloride	56-23-5	mg/kg																						
VOCs	Chlorobenzene	108-90-7	mg/kg																						
VOCs	Chlorobromomethane	74-97-5	mg/kg																						
VOCs	Chlorodibromomethane	124-48-1	mg/kg																						
VOCs	Chloroethane	75-00-3	mg/kg																						
VOCs	Chloroform	67-66-3	mg/kg																						
VOCs	Chloromethane	74-87-3	mg/kg																						
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																						
VOCs	Chloroethane	75-00-3	mg/kg																						
VOCs	Chloroform	67-66-3	mg/kg																						
VOCs	Chloromethane	74-87-3	mg/kg																						
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																						
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																						
VOCs	Dibromomethane	74-95-3	mg/kg																						
VOCs	Dichlorobromomethane	75-27-4	mg/kg																						
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																						
VOCs	DIETHYL ETHER	60-29-7	mg/kg																						
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																						
VOCs	Ethylbenzene	100-41-4	mg/kg																						
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																						
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg																						
VOCs	m&p-Xylenes	NA	mg/kg																						
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																						
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VOCs	Methylene Chloride	75-09-2	mg/kg																						
VOCs	n-Butylbenzene	104-51-8	mg/kg																						
VOCs	N-Propylbenzene	103-65-1	mg/kg																						
VOCs	Naphthalene	91-20-3	mg/kg																						
VOCs	o-Xylene	95-47-6	mg/kg																						
VOCs	sec-Butylbenzene	135-98-8	mg/kg																						
VOCs	Styrene	100-42-5	mg/kg																						
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																						
VOCs	tert-Butylbenzene	98-06-6	mg/kg																						
VOCs	Tetrachloroethene	127-18-4	mg/kg																						
VOCs	Tetrahydrofuran	109-99-9	mg/kg																						
VOCs	Toluene	108-88-3	mg/kg																						
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																						
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																						
VOCs	Trichloroethene	79-01-6	mg/kg																						
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																						
VOCs	Vinyl chloride	75-01-4	mg/kg																						
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-89		B-90		B-90		B-91		B-91		B-92		B-93		B-93A		B-94		B-95		B-96	
			Field Sample ID	C101504-B89-S5		C101504-B90-S1		C101504-B90-S2		C052405-B91S2		C052405-B91S2A		C052405-B92S2		C052405-B93S2A		C052405-B93AS2		C052405-B94S2		C052405-B95S2		C052405-B96S2	
			Sample Start Depth	8		0.25		2		4		6.6		5		5		4		4		4		4	
			Sample End Depth	10		2		2.75		6.6		7.5		7		7		5.4		6.2		5.5		6	
			Sample Date	10/15/2004		10/15/2004		10/15/2004		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-89		B-90		B-90		B-91		B-91		B-92		B-93		B-93A		B-94		B-95		B-96	
			Field Sample ID	C101504-B89-S5		C101504-B90-S1		C101504-B90-S2		C052405-B91S2		C052405-B91S2A		C052405-B92S2		C052405-B93S2A		C052405-B93AS2		C052405-B94S2		C052405-B95S2		C052405-B96S2	
			Sample Start Depth	8		0.25		2		4		6.6		5		5		4		4		4		4	
			Sample End Depth	10		2		2.75		6.6		7.5		7		7		5.4		6.2		5.5		6	
			Sample Date	10/15/2004		10/15/2004		10/15/2004		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																						
VPH	Ethylbenzene	100-41-4	mg/kg																						
VPH	m&p-Xylenes	NA	mg/kg																						
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VPH	Naphthalene	91-20-3	mg/kg																						
VPH	o-Xylene	95-47-6	mg/kg																						
VPH	Toluene	108-88-3	mg/kg																						
VPH	Total VPH	NA	mg/kg																						
Metals	Aluminum	7429-90-5	mg/kg																						
Metals	Antimony	7440-36-0	mg/kg	1.6	B	1.2	B	0.96	B	2.6	U	2.5	U	0.71	B	2.8	U	0.85	B	1.8	B	0.94	B	1.6	B
Metals	Arsenic	7440-38-2	mg/kg	70		86		130		7.1		14		18		19		27		26		19		18	
Metals	Barium	7440-39-3	mg/kg																						
Metals	Beryllium	7440-41-7	mg/kg	0.26	B	0.32	U	0.28	U	0.78	U	0.75	U	0.76	U	0.16	B	0.17	B	2	U	0.78	U	2	U
Metals	Cadmium	7440-43-9	mg/kg																						
Metals	Calcium	7440-70-2	mg/kg																						
Metals	Chromium	7440-47-3	mg/kg	860		100		140		460		460		1500		130		210		110		200		740	
Metals	Cobalt	7440-48-4	mg/kg																						
Metals	Copper	7440-50-8	mg/kg	200		200		260		60		160		200		480		640		1000		280		420	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.24		24		4.2		300		110		590		29		24		6.7		10		2.6	
Metals	Iron	7439-89-6	mg/kg																						
Metals	Lead	7439-92-1	mg/kg	15		4.4		5.9		49		100		170		12		5.9		7		8.9		8.8	
Metals	Magnesium	7439-95-4	mg/kg																						
Metals	Manganese	7439-96-5	mg/kg																						
Metals	Mercury	7439-97-6	mg/kg																						
Metals	Nickel	7440-02-0	mg/kg																						
Metals	Potassium	7440-09-7	mg/kg																						
Metals	Selenium	7782-49-2	mg/kg																						
Metals	Silver	7440-22-4	mg/kg																						
Metals	Sodium	7440-23-5	mg/kg																						
Metals	Thallium	7440-28-0	mg/kg																						
Metals	Vanadium	7440-62-2	mg/kg																						
Metals	Zinc	7440-66-6	mg/kg																						
Cyanide	Cyanide, Reactive	NA	mg/kg																						
Other	Sulfide, Reactive	NA	mg/kg																						
Other	TOTAL ORGANIC CARBON	NA	mg/kg																						
TIC	.alpha.-Pinene	NA	mg/kg																						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																						
TIC	1-4-Methanonaphthalene	NA	mg/kg																						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																						
TIC	1-Methyl-Pyrene	NA	mg/kg																						
TIC	1S-.alpha.-Pinene	NA	mg/kg																						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																						
TIC	2-Methylanthracene	613-12-7	mg/kg																						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																						
TIC	Cyclic octaatomic sulfur	NA	mg/kg																						
TIC	Cyclopentane, methyl-	NA	mg/kg																						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																						
TIC	Hexanal	0066-25-1	mg/kg																						
TIC	Pentane, 2-methyl-	NA	mg/kg																						
TIC	Pentane, 3-methyl-	NA	mg/kg																						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-97		B-B1		B-B2		B-B3		B-S1		B-S2		BGS-1		BGS-1		C-B1		C-B2	
			Field Sample ID	C052405-B97S2		C022607-BB1		C022607-BB2		C022707-BB3		C022607-BS1		C022607-BS2		C062404-BGS1-0.5-1		C062404-BGS1-1-1.5		C022707-CB1		C022707-CB2	
			Sample Start Depth	4		4		4		2		3		3		0.5		1		4		4	
			Sample End Depth	6		5		5		5		5		5		1		1.5		4		4	
			Sample Date	5/24/2005		2/26/2007		2/26/2007		2/27/2007		2/26/2007		2/26/2007		6/24/2004		6/24/2004		2/27/2007		2/27/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,4-Dioxane	123-91-1	mg/kg			0.31	U	0.36	U	0.33	U	0.28	U	0.35	U					0.27	U	0.27	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	2-Hexanone	591-78-6	mg/kg			0.025	U	0.029	U	0.026	U	0.022	U	0.028	U					0.021	U	0.021	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg			0.025	U	0.029	U	0.026	U	0.022	U	0.028	U					0.021	U	0.021	U
VOCs	Acetone	67-64-1	mg/kg			0.31	UJ	0.36	UJ	0.33	UJ	0.17	J	0.35	UJ					0.27	UJ	0.27	UJ
VOCs	Benzene	71-43-2	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Bromobenzene	108-86-1	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Bromoform	75-25-2	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Bromomethane	74-83-9	mg/kg			0.0062	U	0.0072	U	0.0066	U	0.0056	U	0.0071	U					0.0053	U	0.0054	U
VOCs	Carbon disulfide	75-15-0	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Chlorobenzene	108-90-7	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Chlorobromomethane	74-97-5	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Chloroethane	75-00-3	mg/kg			0.0062	U	0.0072	U	0.0066	U	0.0056	U	0.0071	U					0.0053	U	0.0054	U
VOCs	Chloroform	67-66-3	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Chloromethane	74-87-3	mg/kg			0.0062	U	0.0072	U	0.0066	U	0.0056	U	0.0071	U					0.0053	U	0.0054	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Dibromomethane	74-95-3	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg			0.0062	U	0.0072	U	0.0066	U	0.0056	U	0.0071	U					0.0053	U	0.0054	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Ethylbenzene	100-41-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	m&p-Xylenes	NA	mg/kg			0.0031	U	0.0079	J	0.0033	U	0.0018	J	0.0035	U					0.0027	U	0.0027	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg			0.025	U	0.029	U	0.026	U	0.022	U	0.028	U					0.021	U	0.021	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Methylene Chloride	75-09-2	mg/kg			0.0062	U	0.0072	U	0.0066	U	0.0056	U	0.0071	U					0.0053	U	0.0054	U
VOCs	n-Butylbenzene	104-51-8	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	N-Propylbenzene	103-65-1	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Naphthalene	91-20-3	mg/kg			0.031	U	0.036	U	0.033	U	0.028	U	0.035	U					0.027	U	0.027	U
VOCs	o-Xylene	95-47-6	mg/kg			0.0031	U	0.0033	J	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Styrene	100-42-5	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Tetrachloroethene	127-18-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg			0.025	U	0.029	U	0.026	U	0.022	U	0.028	U					0.021	U	0.021	U
VOCs	Toluene	108-88-3	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Trichloroethene	79-01-6	mg/kg			0.0022	J	0.0036	U	0.0033	U	0.0028	U	0.0016	J					0.0027		0.0027	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Vinyl chloride	75-01-4	mg/kg			0.0062	U	0.0072	U	0.0066	U	0.0056	U	0.0071	U					0.0053	U	0.0054	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-97		B-B1		B-B2		B-B3		B-S1		B-S2		BGS-1		BGS-1		C-B1		C-B2	
			Field Sample ID	C052405-B97S2		C022607-BB1		C022607-BB2		C022607-BB3		C022607-BS1		C022607-BS2		C062404-BGS1-0.5-1		C062404-BGS1-1-1.5		C022707-CB1		C022707-CB2	
			Sample Start Depth	4		4		4		2		3		3		0.5		1		4		4	
			Sample End Depth	6		5		5		5		5		5		1		1.5		4		4	
			Sample Date	5/24/2005		2/26/2007		2/26/2007		2/27/2007		2/26/2007		2/26/2007		6/24/2004		6/24/2004		2/27/2007		2/27/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U
EPH	Acenaphthene	83-32-9	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U
EPH	Acenaphthylene	208-96-8	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U
EPH	Anthracene	120-12-7	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U
EPH	C11-C22 Aromatics	NA	mg/kg			4.8		5.6		3.7	U	6		4.4						3.7	U	3.7	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg			4.8		5.6		3.7	U	6		4.4						3.7	U	3.7	U
EPH	C19-C36 Aliphatics	NA	mg/kg			5.7		7.4		8.5		9.3		7						3.7	U	3.7	U
EPH	C9-C18 Aliphatics	NA	mg/kg			3.7	U	3.9	U	3.7	U	3.7	U	3.6	U					3.7	U	3.7	U
EPH	Chrysene	218-01-9	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U
EPH	Fluoranthene	206-44-0	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U
EPH	Fluorene	86-73-7	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U
EPH	Naphthalene	91-20-3	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U
EPH	Phenanthrene	85-01-8	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U
EPH	Pyrene	129-00-0	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U
EPH	Total EPH	NA	mg/kg			11		13		8.5		15		11						3.7	U	3.7	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	B-97		B-B1		B-B2		B-B3		B-S1		B-S2		BGS-1		BGS-1		C-B1		C-B2	
			Field Sample ID	C052405-B97S2		C022607-BB1		C022607-BB2		C022707-BB3		C022607-BS1		C022607-BS2		C062404-BGS1-0.5-1		C062404-BGS1-1-1.5		C022707-CB1		C022707-CB2	
			Sample Start Depth	4		4		4		2		3		3		0.5		1		4		4	
			Sample End Depth	6		5		5		5		5		5		1		1.5		4		4	
			Sample Date	5/24/2005		2/26/2007		2/26/2007		2/27/2007		2/26/2007		2/26/2007		6/24/2004		6/24/2004		2/27/2007		2/27/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg			12,000		28,000		33,000		19,000		26,000		13,000		11,000		23,000		13,000	
Metals	Antimony	7440-36-0	mg/kg	6.7	U	19	J	6.2	J	7.7	J	39	J	4.1	J	1.7	U	1.5	U	3.4	J	1.6	J
Metals	Arsenic	7440-38-2	mg/kg	150		26		24		58		38		45		29		19		56		34	
Metals	Barium	7440-39-3	mg/kg			68		190		130		82		120		28		26		67		35	
Metals	Beryllium	7440-41-7	mg/kg	2	U	1.4	U	1.3	U	1.3	U	1.3	U	1.4	U	0.5		0.41		1.2	U	0.27	U
Metals	Cadmium	7440-43-9	mg/kg			0.27	J	0.82	J	0.85	J	0.37	J	0.58	J	0.17	U	0.15	U	0.53	J	0.25	J
Metals	Calcium	7440-70-2	mg/kg			1,600	B	3,700	B	7,600	B	1,600	B	8,700	B	830		700		3,800	B	1,500	B
Metals	Chromium	7440-47-3	mg/kg	240		1500	B	470	B	520	B	3300	B	250	B	27		23		140	B	90	B
Metals	Cobalt	7440-48-4	mg/kg			8.4		18		22		12		17		4.9		4.8		17		8.1	
Metals	Copper	7440-50-8	mg/kg	370		900	B	370	B	570	B	220	B	270	B	17		10		210	B	150	B
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	4.9		65		65		0.6		410		94		8	U	4.2	U	5.1		0.37	
Metals	Iron	7439-89-6	mg/kg			19,000	B	42,000	B	49,000	B	29,000	B	37,000	B	13,000		11,000		35,000	B	18,000	B
Metals	Lead	7439-92-1	mg/kg	6.7		87	J	110	J	110	J	46	J	730	J	18		25		44	J	10	J
Metals	Magnesium	7439-95-4	mg/kg			5,700		16,000		18,000		9,100		13,000		3,600		2,900		12,000		5,800	
Metals	Manganese	7439-96-5	mg/kg			370		410		650		320		490		130		150		330		210	
Metals	Mercury	7439-97-6	mg/kg			0.13		0.096	U	0.037	J	0.063	J	0.048	J	0.11	U	0.13	U	0.09	U	0.1	U
Metals	Nickel	7440-02-0	mg/kg			28	B	74	B	93	B	42	B	58	B	18		14		59	B	32	B
Metals	Potassium	7440-09-7	mg/kg			2,400	J	11,000	J	9,300	J	4,500	J	7,300	J	720		450		5,300	J	2,100	J
Metals	Selenium	7782-49-2	mg/kg			3.4	U	3.3	U	3.2	U	3.3	U	3.4	U	0.84	U	0.76	U	2.9	U	0.67	U
Metals	Silver	7440-22-4	mg/kg			33		8.8		9.6		72		5.3		0.84	U	0.76	U	2.4	J	1.3	
Metals	Sodium	7440-23-5	mg/kg			680	U	180	J	300	J	87	U	210	J	170	U	150	U	120	U	50	J
Metals	Thallium	7440-28-0	mg/kg			6.8	U	6.5	U	6.5	U	6.5	U	6.8	U	0.84	U	0.76	U	5.9	U	0.15	J
Metals	Vanadium	7440-62-2	mg/kg			24		69		68		38		58		23		20		45		21	
Metals	Zinc	7440-66-6	mg/kg			54		75		100		47		87		38		38		63		27	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg					0.015	NJ														
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	C-S1		C-S2		C-S3		CLSoil10		CLSoil6		CLSoil7		CLSoil8		CLSoil9		CXRF-01		CXRF-01		CXRF-01	
			Field Sample ID	C022707-CS1		C022707-CS2		C022707-CS3		C052893-CLSoil10		C052893-CLSoil6		C052893-CLSoil7		C052893-CLSoil8		C052893-CLSoil9		CXRF-01(0-5)		CXRF-01(10-13)		CXRF-01(5-8)	
			Sample Start Depth	2		2		2		0		0		0		0		0		0		10		5	
			Sample End Depth	4		4		4		0.5		0.5		0.5		0.5		0.5		5		13		8	
			Sample Date	2/27/2007		2/27/2007		2/27/2007		5/28/1993		5/28/1993		5/28/1993		5/28/1993		5/28/1993		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.2	U	0.22	U	0.32	U																
VOCs	1-Chlorohexane	544-10-5	mg/kg							0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	2-Hexanone	591-78-6	mg/kg	0.016	U	0.018	U	0.025	U																
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.016	U	0.018	U	0.025	U																
VOCs	Acetone	67-64-1	mg/kg	0.16	J	0.22	UJ	0.32	UJ																
VOCs	Benzene	71-43-2	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Bromobenzene	108-86-1	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Bromoform	75-25-2	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Bromomethane	74-83-9	mg/kg	0.004	U	0.0044	U	0.0063	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Carbon disulfide	75-15-0	mg/kg	0.002	U	0.0022	U	0.0032	U																
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Chlorobenzene	108-90-7	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Chloroethane	75-00-3	mg/kg	0.004	U	0.0044	U	0.0063	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Chloroform	67-66-3	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Chloromethane	74-87-3	mg/kg	0.004	U	0.0044	U	0.0063	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.002	U	0.0022	U	0.0032	U																
VOCs	Dibromomethane	74-95-3	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.004	U	0.0044	U	0.0063	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.002	U	0.0022	U	0.0032	U																
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.002	U	0.0022	U	0.0032	U																
VOCs	Ethylbenzene	100-41-4	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.002	U	0.0022	U	0.0032	U																
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Hexanal	0066-25-1	mg/kg	0.065	NJ			0.033	NJ																
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	m&p-Xylenes	NA	mg/kg	0.0029	J	0.0022	U	0.0032	U																
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.016	U	0.018	U	0.025	U																
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.002	U	0.0022	U	0.0032	U																
VOCs	Methylene Chloride	75-09-2	mg/kg	0.004	U	0.0044	U	0.0063	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Naphthalene	91-20-3	mg/kg	0.02	U	0.022	U	0.032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	o-Xylene	95-47-6	mg/kg	0.0015	J	0.0022	U	0.0032	U																
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Styrene	100-42-5	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.002	U	0.0022	U	0.0032	U																
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.016	U	0.018	U	0.025	U																
VOCs	Toluene	108-88-3	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.002	U	0.0022	U	0.0032	U																
VOCs	Trichloroethene	79-01-6	mg/kg	0.0014	J	0.0022	U	0.0013	J	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Vinyl chloride	75-01-4	mg/kg	0.004	U	0.0044	U	0.0063	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg							0.03	U	0.03	U	0.03	U	0.03	U	0.03	U						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	C-S1		C-S2		C-S3		CLSoil10		CLSoil6		CLSoil7		CLSoil8		CLSoil9		CXRF-01		CXRF-01		CXRF-01	
			Field Sample ID	C022707-CS1		C022707-CS2		C022707-CS3		C052893-CLSoil10		C052893-CLSoil6		C052893-CLSoil7		C052893-CLSoil8		C052893-CLSoil9		CXRF-01(0-5)		CXRF-01(10-13)		CXRF-01(5-8)	
			Sample Start Depth	2		2		2		0		0		0		0		0		0		10		5	
			Sample End Depth	4		4		4		0.5		0.5		0.5		0.5		0.5		5		13		8	
			Sample Date	2/27/2007		2/27/2007		2/27/2007		5/28/1993		5/28/1993		5/28/1993		5/28/1993		5/28/1993		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Acenaphthene	83-32-9	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Acenaphthylene	208-96-8	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Anthracene	120-12-7	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	C11-C22 Aromatics	NA	mg/kg	6.3		3.8	U	5.9																	
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	6.3		3.8	U	5.9																	
EPH	C19-C36 Aliphatics	NA	mg/kg	9.9		3.8	U	4.1																	
EPH	C9-C18 Aliphatics	NA	mg/kg	3.7	U	3.8	U	3.8	U																
EPH	Chrysene	218-01-9	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Fluoranthene	206-44-0	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Fluorene	86-73-7	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Naphthalene	91-20-3	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Phenanthrene	85-01-8	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Pyrene	129-00-0	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Total EPH	NA	mg/kg	16		3.8	U	10																	
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	C-S1		C-S2		C-S3		CLSoil10		CLSoil6		CLSoil7		CLSoil8		CLSoil9		CXRF-01		CXRF-01		CXRF-01	
			Field Sample ID	C022707-CS1		C022707-CS2		C022707-CS3		C052893-CLSoil10		C052893-CLSoil6		C052893-CLSoil7		C052893-CLSoil8		C052893-CLSoil9		CXRF-01(0-5)		CXRF-01(10-13)		CXRF-01(5-8)	
			Sample Start Depth	2		2		2		0		0		0		0		0		0		10		5	
			Sample End Depth	4		4		4		0.5		0.5		0.5		0.5		0.5		5		13		8	
			Sample Date	2/27/2007		2/27/2007		2/27/2007		5/28/1993		5/28/1993		5/28/1993		5/28/1993		5/28/1993		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																						
VPH	Ethylbenzene	100-41-4	mg/kg																						
VPH	m&p-Xylenes	NA	mg/kg																						
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VPH	Naphthalene	91-20-3	mg/kg																						
VPH	o-Xylene	95-47-6	mg/kg																						
VPH	Toluene	108-88-3	mg/kg																						
VPH	Total VPH	NA	mg/kg																						
Metals	Aluminum	7429-90-5	mg/kg	25,000		18,000		14,000																	
Metals	Antimony	7440-36-0	mg/kg	2.8	J	1.8	J	2.2	J																
Metals	Arsenic	7440-38-2	mg/kg	110		53		33		5.1		3.8		4		4.1		2.8							
Metals	Barium	7440-39-3	mg/kg	100		67		48		22		12		15		14		14							
Metals	Beryllium	7440-41-7	mg/kg	1.3	U	1.2	U	0.27	U																
Metals	Cadmium	7440-43-9	mg/kg	0.85	J	0.36	J	0.37		0.67		0.68		0.83		1.1		0.72							
Metals	Calcium	7440-70-2	mg/kg	5,500	B	2,700	B	1,800	B																
Metals	Chromium	7440-47-3	mg/kg	130	B	67	B	120	B	26		25		27		37		26		210		147		1300	B
Metals	Cobalt	7440-48-4	mg/kg	20		12		8.4																	
Metals	Copper	7440-50-8	mg/kg	350	B	29	B	120	B	7.4		10		10		14		11							
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	3.6		0.36		4.6																8.8	
Metals	Iron	7439-89-6	mg/kg	41,000	B	24,000	B	19,000	B																
Metals	Lead	7439-92-1	mg/kg	28	J	9.1	J	58	J	31		44		54		72		16							
Metals	Magnesium	7439-95-4	mg/kg	15,000		8,500		6,400																	
Metals	Manganese	7439-96-5	mg/kg	500		490		240																	
Metals	Mercury	7439-97-6	mg/kg	0.038	J	0.036	J	0.086																	
Metals	Nickel	7440-02-0	mg/kg	64	B	45	B	35	B	18		19		23		30		21							
Metals	Potassium	7440-09-7	mg/kg	6,800	J	4,100	J	2,300	J																
Metals	Selenium	7782-49-2	mg/kg	3.2	U	2.9	U	0.67	U																
Metals	Silver	7440-22-4	mg/kg	2.1	J	1.4	J	2		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U						
Metals	Sodium	7440-23-5	mg/kg	130	U	76	U	58	J																
Metals	Thallium	7440-28-0	mg/kg	6.4	U	5.9	U	1.3	U																
Metals	Vanadium	7440-62-2	mg/kg	64		34		26																	
Metals	Zinc	7440-66-6	mg/kg	91		38		35																	
Cyanide	Cyanide, Reactive	NA	mg/kg																						
Other	Sulfide, Reactive	NA	mg/kg																						
Other	TOTAL ORGANIC CARBON	NA	mg/kg																						
TIC	.alpha.-Pinene	NA	mg/kg																						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																						
TIC	1-4-Methanonaphthalene	NA	mg/kg																						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																						
TIC	1-Methyl-Pyrene	NA	mg/kg																						
TIC	15-.alpha.-Pinene	NA	mg/kg																						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																						
TIC	2-Methylanthracene	613-12-7	mg/kg																						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																						
TIC	Cyclic octaatomic sulfur	NA	mg/kg																						
TIC	Cyclopentane, methyl-	NA	mg/kg																						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																						
TIC	Hexanal	0066-25-1	mg/kg																						
TIC	Pentane, 2-methyl-	NA	mg/kg																						
TIC	Pentane, 3-methyl-	NA	mg/kg																						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-01		CXRF-02		CXRF-02		CXRF-02		CXRF-03		CXRF-03		CXRF-03		CXRF-03		CXRF-04		CXRF-04		CXRF-04	
			Field Sample ID	CXRF-01(8-10)		CXRF-02(0-5)		CXRF-02(10-15)		CXRF-02(5-10)		CXRF-03(0-5)		CXRF-03(10-14)		CXRF-03(5-8)		CXRF-03(8-10)		CXRF-04(0-5)		CXRF-04(10-13)		CXRF-04(5-10)	
			Sample Start Depth	8		0		10		5		0		10		5		8		0		10		5	
			Sample End Depth	10		5		15		10		5		14		8		10		5		13		10	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																						
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																						
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																						
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																						
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																						
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																						
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																						
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																						
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																						
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																						
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																						
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																						
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																						
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																						
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																						
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																						
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
VOCs	1,4-Dioxane	123-91-1	mg/kg																						
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																						
VOCs	2-Chlorotoluene	95-49-8	mg/kg																						
VOCs	2-Hexanone	591-78-6	mg/kg																						
VOCs	4-Chlorotoluene	106-43-4	mg/kg																						
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																						
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																						
VOCs	Acetone	67-64-1	mg/kg																						
VOCs	Benzene	71-43-2	mg/kg																						
VOCs	Bromobenzene	108-86-1	mg/kg																						
VOCs	Bromoform	75-25-2	mg/kg																						
VOCs	Bromomethane	74-83-9	mg/kg																						
VOCs	Carbon disulfide	75-15-0	mg/kg																						
VOCs	Carbon tetrachloride	56-23-5	mg/kg																						
VOCs	Chlorobenzene	108-90-7	mg/kg																						
VOCs	Chlorobromomethane	74-97-5	mg/kg																						
VOCs	Chlorodibromomethane	124-48-1	mg/kg																						
VOCs	Chloroethane	75-00-3	mg/kg																						
VOCs	Chloroform	67-66-3	mg/kg																						
VOCs	Chlorobromomethane	74-97-5	mg/kg																						
VOCs	Chlorodibromomethane	124-48-1	mg/kg																						
VOCs	Chloroethane	75-00-3	mg/kg																						
VOCs	Chloroform	67-66-3	mg/kg																						
VOCs	Chloromethane	74-87-3	mg/kg																						
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																						
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																						
VOCs	Dibromomethane	74-95-3	mg/kg																						
VOCs	Dichlorobromomethane	75-27-4	mg/kg																						
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																						
VOCs	DIETHYL ETHER	60-29-7	mg/kg																						
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																						
VOCs	Ethylbenzene	100-41-4	mg/kg																						
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																						
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg																						
VOCs	m&p-Xylenes	NA	mg/kg																						
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																						
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VOCs	Methylene Chloride	75-09-2	mg/kg																						
VOCs	n-Butylbenzene	104-51-8	mg/kg																						
VOCs	N-Propylbenzene	103-65-1	mg/kg																						
VOCs	Naphthalene	91-20-3	mg/kg																						
VOCs	o-Xylene	95-47-6	mg/kg																						
VOCs	sec-Butylbenzene	135-98-8	mg/kg																						
VOCs	Styrene	100-42-5	mg/kg																						
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																						
VOCs	tert-Butylbenzene	98-06-6	mg/kg																						
VOCs	Tetrachloroethene	127-18-4	mg/kg																						
VOCs	Tetrahydrofuran	109-99-9	mg/kg																						
VOCs	Toluene	108-88-3	mg/kg																						
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																						
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																						
VOCs	Trichloroethene	79-01-6	mg/kg																						
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																						
VOCs	Vinyl chloride	75-01-4	mg/kg																						
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-01		CXRF-02		CXRF-02		CXRF-02		CXRF-03		CXRF-03		CXRF-03		CXRF-03		CXRF-04		CXRF-04		CXRF-04	
			Field Sample ID	CXRF-01(8-10)		CXRF-02(0-5)		CXRF-02(10-15)		CXRF-02(5-10)		CXRF-03(0-5)		CXRF-03(10-14)		CXRF-03(5-8)		CXRF-03(8-10)		CXRF-04(0-5)		CXRF-04(10-13)		CXRF-04(5-10)	
			Sample Start Depth	8		0		10		5		0		10		5		8		0		10		5	
			Sample End Depth	10		5		15		10		5		14		8		10		5		13		10	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-01		CXRF-02		CXRF-02		CXRF-02		CXRF-03		CXRF-03		CXRF-03		CXRF-03		CXRF-04		CXRF-04		CXRF-04	
			Field Sample ID	CXRF-01(8-10)		CXRF-02(0-5)		CXRF-02(10-15)		CXRF-02(5-10)		CXRF-03(0-5)		CXRF-03(10-14)		CXRF-03(5-8)		CXRF-03(8-10)		CXRF-04(0-5)		CXRF-04(10-13)		CXRF-04(5-10)	
			Sample Start Depth	8		0		10		5		0		10		5		8		0		10		5	
			Sample End Depth	10		5		15		10		5		14		8		10		5		13		10	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																						
VPH	Ethylbenzene	100-41-4	mg/kg																						
VPH	m&p-Xylenes	NA	mg/kg																						
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VPH	Naphthalene	91-20-3	mg/kg																						
VPH	o-Xylene	95-47-6	mg/kg																						
VPH	Toluene	108-88-3	mg/kg																						
VPH	Total VPH	NA	mg/kg																						
Metals	Aluminum	7429-90-5	mg/kg																						
Metals	Antimony	7440-36-0	mg/kg																						
Metals	Arsenic	7440-38-2	mg/kg																						
Metals	Barium	7440-39-3	mg/kg																						
Metals	Beryllium	7440-41-7	mg/kg																						
Metals	Cadmium	7440-43-9	mg/kg																						
Metals	Calcium	7440-70-2	mg/kg																						
Metals	Chromium	7440-47-3	mg/kg	501		195		352		612		94		542		189		624		180		856		680	
Metals	Cobalt	7440-48-4	mg/kg																						
Metals	Copper	7440-50-8	mg/kg																						
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg																						
Metals	Iron	7439-89-6	mg/kg																						
Metals	Lead	7439-92-1	mg/kg																						
Metals	Magnesium	7439-95-4	mg/kg																						
Metals	Manganese	7439-96-5	mg/kg																						
Metals	Mercury	7439-97-6	mg/kg																						
Metals	Nickel	7440-02-0	mg/kg																						
Metals	Potassium	7440-09-7	mg/kg																						
Metals	Selenium	7782-49-2	mg/kg																						
Metals	Silver	7440-22-4	mg/kg																						
Metals	Sodium	7440-23-5	mg/kg																						
Metals	Thallium	7440-28-0	mg/kg																						
Metals	Vanadium	7440-62-2	mg/kg																						
Metals	Zinc	7440-66-6	mg/kg																						
Cyanide	Cyanide, Reactive	NA	mg/kg																						
Other	Sulfide, Reactive	NA	mg/kg																						
Other	TOTAL ORGANIC CARBON	NA	mg/kg																						
TIC	.alpha.-Pinene	NA	mg/kg																						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																						
TIC	1-4-Methanonaphthalene	NA	mg/kg																						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																						
TIC	1-Methyl-Pyrene	NA	mg/kg																						
TIC	1S-.alpha.-Pinene	NA	mg/kg																						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																						
TIC	2-Methylanthracene	613-12-7	mg/kg																						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																						
TIC	Cyclic octaatomic sulfur	NA	mg/kg																						
TIC	Cyclopentane, methyl-	NA	mg/kg																						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																						
TIC	Hexanal	0066-25-1	mg/kg																						
TIC	Pentane, 2-methyl-	NA	mg/kg																						
TIC	Pentane, 3-methyl-	NA	mg/kg																						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-05		CXRF-05		CXRF-05		CXRF-05		CXRF-06		CXRF-06		CXRF-06		CXRF-07		CXRF-07		CXRF-07		CXRF-07	
			Field Sample ID	CXRF-05(0-5)		CXRF-05(10-12)		CXRF-05(5-8)		CXRF-05(8-10)		CXRF-06(0-5)		CXRF-06(5-8)		CXRF-06(8-10)		CXRF-07(0-5)		CXRF-07(10-14)		CXRF-07(5-8)		CXRF-07(8-10)	
			Sample Start Depth	0		10		5		8		0		5		8		0		10		5		8	
			Sample End Depth	5		12		8		10		5		8		10		5		14		8		10	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																						
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																						
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																						
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																						
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																						
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																						
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																						
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																						
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																						
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																						
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																						
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																						
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																						
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																						
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																						
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																						
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
VOCs	1,4-Dioxane	123-91-1	mg/kg																						
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																						
VOCs	2-Chlorotoluene	95-49-8	mg/kg																						
VOCs	2-Hexanone	591-78-6	mg/kg																						
VOCs	4-Chlorotoluene	106-43-4	mg/kg																						
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																						
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																						
VOCs	Acetone	67-64-1	mg/kg																						
VOCs	Benzene	71-43-2	mg/kg																						
VOCs	Bromobenzene	108-86-1	mg/kg																						
VOCs	Bromoform	75-25-2	mg/kg																						
VOCs	Bromomethane	74-83-9	mg/kg																						
VOCs	Carbon disulfide	75-15-0	mg/kg																						
VOCs	Carbon tetrachloride	56-23-5	mg/kg																						
VOCs	Chlorobenzene	108-90-7	mg/kg																						
VOCs	Chlorobromomethane	74-97-5	mg/kg																						
VOCs	Chlorodibromomethane	124-48-1	mg/kg																						
VOCs	Chloroethane	75-00-3	mg/kg																						
VOCs	Chloroform	67-66-3	mg/kg																						
VOCs	Chlorobromomethane	74-97-5	mg/kg																						
VOCs	Chlorodibromomethane	124-48-1	mg/kg																						
VOCs	Chloroethane	75-00-3	mg/kg																						
VOCs	Chloroform	67-66-3	mg/kg																						
VOCs	Chloromethane	74-87-3	mg/kg																						
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																						
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																						
VOCs	Dibromomethane	74-95-3	mg/kg																						
VOCs	Dichlorobromomethane	75-27-4	mg/kg																						
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																						
VOCs	DIETHYL ETHER	60-29-7	mg/kg																						
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																						
VOCs	Ethylbenzene	100-41-4	mg/kg																						
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																						
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg																						
VOCs	m&p-Xylenes	NA	mg/kg																						
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																						
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VOCs	Methylene Chloride	75-09-2	mg/kg																						
VOCs	n-Butylbenzene	104-51-8	mg/kg																						
VOCs	N-Propylbenzene	103-65-1	mg/kg																						
VOCs	Naphthalene	91-20-3	mg/kg																						
VOCs	o-Xylene	95-47-6	mg/kg																						
VOCs	sec-Butylbenzene	135-98-8	mg/kg																						
VOCs	Styrene	100-42-5	mg/kg																						
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																						
VOCs	tert-Butylbenzene	98-06-6	mg/kg																						
VOCs	Tetrachloroethene	127-18-4	mg/kg																						
VOCs	Tetrahydrofuran	109-99-9	mg/kg																						
VOCs	Toluene	108-88-3	mg/kg																						
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																						
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																						
VOCs	Trichloroethene	79-01-6	mg/kg																						
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																						
VOCs	Vinyl chloride	75-01-4	mg/kg																						
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-05		CXRF-05		CXRF-05		CXRF-05		CXRF-06		CXRF-06		CXRF-06		CXRF-07		CXRF-07		CXRF-07		CXRF-07	
			Field Sample ID	CXRF-05(0-5)		CXRF-05(10-12)		CXRF-05(5-8)		CXRF-05(8-10)		CXRF-06(0-5)		CXRF-06(5-8)		CXRF-06(8-10)		CXRF-07(0-5)		CXRF-07(10-14)		CXRF-07(5-8)		CXRF-07(8-10)	
			Sample Start Depth	0		10		5		8		0		5		8		0		10		5		8	
			Sample End Depth	5		12		8		10		5		8		10		5		14		8		10	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-05		CXRF-05		CXRF-05		CXRF-05		CXRF-06		CXRF-06		CXRF-06		CXRF-07		CXRF-07		CXRF-07		CXRF-07	
			Field Sample ID	CXRF-05(0-5)		CXRF-05(10-12)		CXRF-05(5-8)		CXRF-05(8-10)		CXRF-06(0-5)		CXRF-06(5-8)		CXRF-06(8-10)		CXRF-07(0-5)		CXRF-07(10-14)		CXRF-07(5-8)		CXRF-07(8-10)	
			Sample Start Depth	0		10		5		8		0		5		8		0		10		5		8	
			Sample End Depth	5		12		8		10		5		8		10		5		14		8		10	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																						
VPH	Ethylbenzene	100-41-4	mg/kg																						
VPH	m&p-Xylenes	NA	mg/kg																						
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VPH	Naphthalene	91-20-3	mg/kg																						
VPH	o-Xylene	95-47-6	mg/kg																						
VPH	Toluene	108-88-3	mg/kg																						
VPH	Total VPH	NA	mg/kg																						
Metals	Aluminum	7429-90-5	mg/kg																						
Metals	Antimony	7440-36-0	mg/kg																						
Metals	Arsenic	7440-38-2	mg/kg																						
Metals	Barium	7440-39-3	mg/kg																						
Metals	Beryllium	7440-41-7	mg/kg																						
Metals	Cadmium	7440-43-9	mg/kg																						
Metals	Calcium	7440-70-2	mg/kg																						
Metals	Chromium	7440-47-3	mg/kg	123	U	1190		314		1100	B	281		2900	B	586		82		238		923		305	
Metals	Cobalt	7440-48-4	mg/kg																						
Metals	Copper	7440-50-8	mg/kg																						
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg							46				0.2	U										
Metals	Iron	7439-89-6	mg/kg																						
Metals	Lead	7439-92-1	mg/kg																						
Metals	Magnesium	7439-95-4	mg/kg																						
Metals	Manganese	7439-96-5	mg/kg																						
Metals	Mercury	7439-97-6	mg/kg																						
Metals	Nickel	7440-02-0	mg/kg																						
Metals	Potassium	7440-09-7	mg/kg																						
Metals	Selenium	7782-49-2	mg/kg																						
Metals	Silver	7440-22-4	mg/kg																						
Metals	Sodium	7440-23-5	mg/kg																						
Metals	Thallium	7440-28-0	mg/kg																						
Metals	Vanadium	7440-62-2	mg/kg																						
Metals	Zinc	7440-66-6	mg/kg																						
Cyanide	Cyanide, Reactive	NA	mg/kg																						
Other	Sulfide, Reactive	NA	mg/kg																						
Other	TOTAL ORGANIC CARBON	NA	mg/kg																						
TIC	.alpha.-Pinene	NA	mg/kg																						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																						
TIC	1-4-Methanonaphthalene	NA	mg/kg																						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																						
TIC	1-Methyl-Pyrene	NA	mg/kg																						
TIC	1S-.alpha.-Pinene	NA	mg/kg																						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																						
TIC	2-Methylanthracene	613-12-7	mg/kg																						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																						
TIC	Cyclic octaatomic sulfur	NA	mg/kg																						
TIC	Cyclopentane, methyl-	NA	mg/kg																						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																						
TIC	Hexanal	0066-25-1	mg/kg																						
TIC	Pentane, 2-methyl-	NA	mg/kg																						
TIC	Pentane, 3-methyl-	NA	mg/kg																						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-08		CXRF-08		CXRF-08		CXRF-08		CXRF-09		CXRF-09		CXRF-09		CXRF-09		CXRF-10		CXRF-10		CXRF-10	
			Field Sample ID	CXRF-08(0-5)		CXRF-08(10-14)		CXRF-08(5-8)		CXRF-08(8-10)		CXRF-09(0-5)		CXRF-09(10-15)		CXRF-09(5-8)		CXRF-09(8-10)		CXRF-10(0-5)		CXRF-10(10-15)		CXRF-10(5-8)	
			Sample Start Depth	0		10		5		8		0		10		5		8		0		10		5	
			Sample End Depth	5		14		8		10		5		15		8		10		5		15		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																						
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																						
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																						
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																						
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																						
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																						
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																						
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																						
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																						
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																						
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																						
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																						
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																						
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																						
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																						
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																						
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
VOCs	1,4-Dioxane	123-91-1	mg/kg																						
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																						
VOCs	2-Chlorotoluene	95-49-8	mg/kg																						
VOCs	2-Hexanone	591-78-6	mg/kg																						
VOCs	4-Chlorotoluene	106-43-4	mg/kg																						
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																						
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																						
VOCs	Acetone	67-64-1	mg/kg																						
VOCs	Benzene	71-43-2	mg/kg																						
VOCs	Bromobenzene	108-86-1	mg/kg																						
VOCs	Bromoform	75-25-2	mg/kg																						
VOCs	Bromomethane	74-83-9	mg/kg																						
VOCs	Carbon disulfide	75-15-0	mg/kg																						
VOCs	Carbon tetrachloride	56-23-5	mg/kg																						
VOCs	Chlorobenzene	108-90-7	mg/kg																						
VOCs	Chlorobromomethane	74-97-5	mg/kg																						
VOCs	Chlorodibromomethane	124-48-1	mg/kg																						
VOCs	Chloroethane	75-00-3	mg/kg																						
VOCs	Chloroform	67-66-3	mg/kg																						
VOCs	Chloromethane	74-87-3	mg/kg																						
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																						
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																						
VOCs	Dibromomethane	74-95-3	mg/kg																						
VOCs	Dichlorobromomethane	75-27-4	mg/kg																						
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																						
VOCs	DIETHYL ETHER	60-29-7	mg/kg																						
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																						
VOCs	Ethylbenzene	100-41-4	mg/kg																						
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																						
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg																						
VOCs	m&p-Xylenes	NA	mg/kg																						
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																						
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VOCs	Methylene Chloride	75-09-2	mg/kg																						
VOCs	n-Butylbenzene	104-51-8	mg/kg																						
VOCs	N-Propylbenzene	103-65-1	mg/kg																						
VOCs	Naphthalene	91-20-3	mg/kg																						
VOCs	o-Xylene	95-47-6	mg/kg																						
VOCs	sec-Butylbenzene	135-98-8	mg/kg																						
VOCs	Styrene	100-42-5	mg/kg																						
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																						
VOCs	tert-Butylbenzene	98-06-6	mg/kg																						
VOCs	Tetrachloroethene	127-18-4	mg/kg																						
VOCs	Tetrahydrofuran	109-99-9	mg/kg																						
VOCs	Toluene	108-88-3	mg/kg																						
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																						
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																						
VOCs	Trichloroethene	79-01-6	mg/kg																						
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																						
VOCs	Vinyl chloride	75-01-4	mg/kg																						
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-08		CXRF-08		CXRF-08		CXRF-08		CXRF-09		CXRF-09		CXRF-09		CXRF-09		CXRF-10		CXRF-10		CXRF-10	
			Field Sample ID	CXRF-08(0-5)		CXRF-08(10-14)		CXRF-08(5-8)		CXRF-08(8-10)		CXRF-09(0-5)		CXRF-09(10-15)		CXRF-09(5-8)		CXRF-09(8-10)		CXRF-10(0-5)		CXRF-10(10-15)		CXRF-10(5-8)	
			Sample Start Depth	0		10		5		8		0		10		5		8		0		10		5	
			Sample End Depth	5		14		8		10		5		15		8		10		5		15		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-08		CXRF-08		CXRF-08		CXRF-08		CXRF-09		CXRF-09		CXRF-09		CXRF-09		CXRF-10		CXRF-10		CXRF-10	
			Field Sample ID	CXRF-08(0-5)		CXRF-08(10-14)		CXRF-08(5-8)		CXRF-08(8-10)		CXRF-09(0-5)		CXRF-09(10-15)		CXRF-09(5-8)		CXRF-09(8-10)		CXRF-10(0-5)		CXRF-10(10-15)		CXRF-10(5-8)	
			Sample Start Depth	0		10		5		8		0		10		5		8		0		10		5	
			Sample End Depth	5		14		8		10		5		15		8		10		5		15		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																						
VPH	Ethylbenzene	100-41-4	mg/kg																						
VPH	m&p-Xylenes	NA	mg/kg																						
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VPH	Naphthalene	91-20-3	mg/kg																						
VPH	o-Xylene	95-47-6	mg/kg																						
VPH	Toluene	108-88-3	mg/kg																						
VPH	Total VPH	NA	mg/kg																						
Metals	Aluminum	7429-90-5	mg/kg																						
Metals	Antimony	7440-36-0	mg/kg																						
Metals	Arsenic	7440-38-2	mg/kg																						
Metals	Barium	7440-39-3	mg/kg																						
Metals	Beryllium	7440-41-7	mg/kg																						
Metals	Cadmium	7440-43-9	mg/kg																						
Metals	Calcium	7440-70-2	mg/kg																						
Metals	Chromium	7440-47-3	mg/kg	120		166		849		232		114		123	U	57	B	130	U	93		133		110	U
Metals	Cobalt	7440-48-4	mg/kg																						
Metals	Copper	7440-50-8	mg/kg																						
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg													0.2	J								
Metals	Iron	7439-89-6	mg/kg																						
Metals	Lead	7439-92-1	mg/kg																						
Metals	Magnesium	7439-95-4	mg/kg																						
Metals	Manganese	7439-96-5	mg/kg																						
Metals	Mercury	7439-97-6	mg/kg																						
Metals	Nickel	7440-02-0	mg/kg																						
Metals	Potassium	7440-09-7	mg/kg																						
Metals	Selenium	7782-49-2	mg/kg																						
Metals	Silver	7440-22-4	mg/kg																						
Metals	Sodium	7440-23-5	mg/kg																						
Metals	Thallium	7440-28-0	mg/kg																						
Metals	Vanadium	7440-62-2	mg/kg																						
Metals	Zinc	7440-66-6	mg/kg																						
Cyanide	Cyanide, Reactive	NA	mg/kg																						
Other	Sulfide, Reactive	NA	mg/kg																						
Other	TOTAL ORGANIC CARBON	NA	mg/kg																						
TIC	.alpha.-Pinene	NA	mg/kg																						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																						
TIC	1-4-Methanonaphthalene	NA	mg/kg																						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																						
TIC	1-Methyl-Pyrene	NA	mg/kg																						
TIC	1S-.alpha.-Pinene	NA	mg/kg																						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																						
TIC	2-Methylanthracene	613-12-7	mg/kg																						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																						
TIC	Cyclic octaatomic sulfur	NA	mg/kg																						
TIC	Cyclopentane, methyl-	NA	mg/kg																						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																						
TIC	Hexanal	0066-25-1	mg/kg																						
TIC	Pentane, 2-methyl-	NA	mg/kg																						
TIC	Pentane, 3-methyl-	NA	mg/kg																						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-10		CXRF-11		CXRF-11		CXRF-11		CXRF-12		CXRF-12		CXRF-12		CXRF-13		CXRF-13		CXRF-13		CXRF-14	
			Field Sample ID	CXRF-10(8-10)		CXRF-11(0-5)		CXRF-11(5-8)		CXRF-11(8-10)		CXRF-12(0-5)		CXRF-12(5-8)		CXRF-12(8-10)		CXRF-13(0-5)		CXRF-13(5-8)		CXRF-13(8-10)		CXRF-14(0-5)	
			Sample Start Depth	8		0		5		8		0		5		8		0		5		8		0	
			Sample End Depth	10		5		8		10		5		8		10		5		8		10		5	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																						
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																						
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																						
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																						
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																						
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																						
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																						
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																						
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																						
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																						
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																						
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																						
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																						
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																						
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																						
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																						
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
VOCs	1,4-Dioxane	123-91-1	mg/kg																						
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																						
VOCs	2-Chlorotoluene	95-49-8	mg/kg																						
VOCs	2-Hexanone	591-78-6	mg/kg																						
VOCs	4-Chlorotoluene	106-43-4	mg/kg																						
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																						
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																						
VOCs	Acetone	67-64-1	mg/kg																						
VOCs	Benzene	71-43-2	mg/kg																						
VOCs	Bromobenzene	108-86-1	mg/kg																						
VOCs	Bromoform	75-25-2	mg/kg																						
VOCs	Bromomethane	74-83-9	mg/kg																						
VOCs	Carbon disulfide	75-15-0	mg/kg																						
VOCs	Carbon tetrachloride	56-23-5	mg/kg																						
VOCs	Chlorobenzene	108-90-7	mg/kg																						
VOCs	Chlorobromomethane	74-97-5	mg/kg																						
VOCs	Chlorodibromomethane	124-48-1	mg/kg																						
VOCs	Chloroethane	75-00-3	mg/kg																						
VOCs	Chloroform	67-66-3	mg/kg																						
VOCs	Chloromethane	74-87-3	mg/kg																						
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																						
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																						
VOCs	Dibromomethane	74-95-3	mg/kg																						
VOCs	Dichlorobromomethane	75-27-4	mg/kg																						
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																						
VOCs	DIETHYL ETHER	60-29-7	mg/kg																						
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																						
VOCs	Ethylbenzene	100-41-4	mg/kg																						
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																						
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg																						
VOCs	m&p-Xylenes	NA	mg/kg																						
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																						
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VOCs	Methylene Chloride	75-09-2	mg/kg																						
VOCs	n-Butylbenzene	104-51-8	mg/kg																						
VOCs	N-Propylbenzene	103-65-1	mg/kg																						
VOCs	Naphthalene	91-20-3	mg/kg																						
VOCs	o-Xylene	95-47-6	mg/kg																						
VOCs	sec-Butylbenzene	135-98-8	mg/kg																						
VOCs	Styrene	100-42-5	mg/kg																						
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																						
VOCs	tert-Butylbenzene	98-06-6	mg/kg																						
VOCs	Tetrachloroethene	127-18-4	mg/kg																						
VOCs	Tetrahydrofuran	109-99-9	mg/kg																						
VOCs	Toluene	108-88-3	mg/kg																						
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																						
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																						
VOCs	Trichloroethene	79-01-6	mg/kg																						
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																						
VOCs	Vinyl chloride	75-01-4	mg/kg																						
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-10		CXRF-11		CXRF-11		CXRF-11		CXRF-12		CXRF-12		CXRF-12		CXRF-13		CXRF-13		CXRF-13		CXRF-14	
			Field Sample ID	CXRF-10(8-10)		CXRF-11(0-5)		CXRF-11(5-8)		CXRF-11(8-10)		CXRF-12(0-5)		CXRF-12(5-8)		CXRF-12(8-10)		CXRF-13(0-5)		CXRF-13(5-8)		CXRF-13(8-10)		CXRF-14(0-5)	
			Sample Start Depth	8		0		5		8		0		5		8		0		5		8		0	
			Sample End Depth	10		5		8		10		5		8		10		5		8		10		5	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-10		CXRF-11		CXRF-11		CXRF-11		CXRF-12		CXRF-12		CXRF-12		CXRF-13		CXRF-13		CXRF-13		CXRF-14	
			Field Sample ID	CXRF-10(8-10)		CXRF-11(0-5)		CXRF-11(5-8)		CXRF-11(8-10)		CXRF-12(0-5)		CXRF-12(5-8)		CXRF-12(8-10)		CXRF-13(0-5)		CXRF-13(5-8)		CXRF-13(8-10)		CXRF-14(0-5)	
			Sample Start Depth	8		0		5		8		0		5		8		0		5		8		0	
			Sample End Depth	10		5		8		10		5		8		10		5		8		10		5	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																						
VPH	Ethylbenzene	100-41-4	mg/kg																						
VPH	m&p-Xylenes	NA	mg/kg																						
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VPH	Naphthalene	91-20-3	mg/kg																						
VPH	o-Xylene	95-47-6	mg/kg																						
VPH	Toluene	108-88-3	mg/kg																						
VPH	Total VPH	NA	mg/kg																						
Metals	Aluminum	7429-90-5	mg/kg																						
Metals	Antimony	7440-36-0	mg/kg																						
Metals	Arsenic	7440-38-2	mg/kg																						
Metals	Barium	7440-39-3	mg/kg																						
Metals	Beryllium	7440-41-7	mg/kg																						
Metals	Cadmium	7440-43-9	mg/kg																						
Metals	Calcium	7440-70-2	mg/kg																						
Metals	Chromium	7440-47-3	mg/kg	110	U	93		240	B	68	U	75	U	723		423		719		980	B	810		125	
Metals	Cobalt	7440-48-4	mg/kg																						
Metals	Copper	7440-50-8	mg/kg																						
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg					25												25					
Metals	Iron	7439-89-6	mg/kg																						
Metals	Lead	7439-92-1	mg/kg																						
Metals	Magnesium	7439-95-4	mg/kg																						
Metals	Manganese	7439-96-5	mg/kg																						
Metals	Mercury	7439-97-6	mg/kg																						
Metals	Nickel	7440-02-0	mg/kg																						
Metals	Potassium	7440-09-7	mg/kg																						
Metals	Selenium	7782-49-2	mg/kg																						
Metals	Silver	7440-22-4	mg/kg																						
Metals	Sodium	7440-23-5	mg/kg																						
Metals	Thallium	7440-28-0	mg/kg																						
Metals	Vanadium	7440-62-2	mg/kg																						
Metals	Zinc	7440-66-6	mg/kg																						
Cyanide	Cyanide, Reactive	NA	mg/kg																						
Other	Sulfide, Reactive	NA	mg/kg																						
Other	TOTAL ORGANIC CARBON	NA	mg/kg																						
TIC	.alpha.-Pinene	NA	mg/kg																						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																						
TIC	1-4-Methanonaphthalene	NA	mg/kg																						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																						
TIC	1-Methyl-Pyrene	NA	mg/kg																						
TIC	1S-.alpha.-Pinene	NA	mg/kg																						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																						
TIC	2-Methylanthracene	613-12-7	mg/kg																						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																						
TIC	Cyclic octaatomic sulfur	NA	mg/kg																						
TIC	Cyclopentane, methyl-	NA	mg/kg																						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																						
TIC	Hexanal	0066-25-1	mg/kg																						
TIC	Pentane, 2-methyl-	NA	mg/kg																						
TIC	Pentane, 3-methyl-	NA	mg/kg																						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-14		CXRF-14		CXRF-15		CXRF-15		CXRF-15		CXRF-16		CXRF-16		CXRF-16		CXRF-17		CXRF-17	
			Field Sample ID	CXRF-14(5-8)		CXRF-14(8-10)		CXRF-15(0-5)		CXRF-15(5-8)		CXRF-15(8-10)		CXRF-16(0-5)		CXRF-16(5-8)		CXRF-16(8-10)		CXRF-17(0-5)		CXRF-17(5-8)	
			Sample Start Depth	5		8		0		5		8		0		5		8		0		5	
			Sample End Depth	8		10		5		8		10		5		8		10		5		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-14		CXRF-14		CXRF-15		CXRF-15		CXRF-15		CXRF-16		CXRF-16		CXRF-16		CXRF-17		CXRF-17	
			Field Sample ID	CXRF-14(5-8)		CXRF-14(8-10)		CXRF-15(0-5)		CXRF-15(5-8)		CXRF-15(8-10)		CXRF-16(0-5)		CXRF-16(5-8)		CXRF-16(8-10)		CXRF-17(0-5)		CXRF-17(5-8)	
			Sample Start Depth	5		8		0		5		8		0		5		8		0		5	
			Sample End Depth	8		10		5		8		10		5		8		10		5		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-14		CXRF-14		CXRF-15		CXRF-15		CXRF-15		CXRF-16		CXRF-16		CXRF-16		CXRF-17		CXRF-17	
			Field Sample ID	CXRF-14(5-8)		CXRF-14(8-10)		CXRF-15(0-5)		CXRF-15(5-8)		CXRF-15(8-10)		CXRF-16(0-5)		CXRF-16(5-8)		CXRF-16(8-10)		CXRF-17(0-5)		CXRF-17(5-8)	
			Sample Start Depth	5		8		0		5		8		0		5		8		0		5	
			Sample End Depth	8		10		5		8		10		5		8		10		5		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg																				
Metals	Arsenic	7440-38-2	mg/kg																				
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg																				
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	110	U	90	U	139		164		186		235		110	B	134		92		83	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg																				
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg													1							
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg																				
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-17		CXRF-18		CXRF-18		CXRF-18		CXRF-19		CXRF-19		CXRF-19		CXRF-20		CXRF-20	
			Field Sample ID	CXRF-17(8-10)		CXRF-18(0-5)		CXRF-18(5-8)		CXRF-18(8-10)		CXRF-19(0-5)		CXRF-19(10-14)		CXRF-19(5-8)		CXRF-19(8-10)		CXRF-20(0-5)		CXRF-20(10-12)	
			Sample Start Depth	8		0		5		8		0		10		5		8		0		10	
			Sample End Depth	10		5		8		10		5		14		8		10		5		12	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-17		CXRF-18		CXRF-18		CXRF-18		CXRF-19		CXRF-19		CXRF-19		CXRF-19		CXRF-20		CXRF-20	
			Field Sample ID	CXRF-17(8-10)		CXRF-18(0-5)		CXRF-18(5-8)		CXRF-18(8-10)		CXRF-19(0-5)		CXRF-19(10-14)		CXRF-19(5-8)		CXRF-19(8-10)		CXRF-20(0-5)		CXRF-20(10-12)	
			Sample Start Depth	8		0		5		8		0		10		5		8		0		10	
			Sample End Depth	10		5		8		10		5		14		8		10		5		12	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-17		CXRF-18		CXRF-18		CXRF-18		CXRF-19		CXRF-19		CXRF-19		CXRF-19		CXRF-20		CXRF-20	
			Field Sample ID	CXRF-17(8-10)		CXRF-18(0-5)		CXRF-18(5-8)		CXRF-18(8-10)		CXRF-19(0-5)		CXRF-19(10-14)		CXRF-19(5-8)		CXRF-19(8-10)		CXRF-20(0-5)		CXRF-20(10-12)	
			Sample Start Depth	8		0		5		8		0		10		5		8		0		10	
			Sample End Depth	10		5		8		10		5		14		8		10		5		12	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg																				
Metals	Arsenic	7440-38-2	mg/kg																				
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg																				
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	50	U	85	U	34	B	45	U	136		140	U	120		97		120	U	143	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg																				
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg					0.8															
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg																				
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-20		CXRF-20		CXRF-21		CXRF-21		CXRF-21		CXRF-22		CXRF-22		CXRF-22		CXRF-22		CXRF-23	
			Field Sample ID	CXRF-20(5-8)		CXRF-20(8-10)		CXRF-21(0-5)		CXRF-21(5-8)		CXRF-21(8-11)		CXRF-22(0-5)		CXRF-22(10-12)		CXRF-22(5-8)		CXRF-22(8-10)		CXRF-23(0-5)	
			Sample Start Depth	5		8		0		5		8		0		10		5		8		0	
			Sample End Depth	8		10		5		8		11		5		12		8		10		5	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-20		CXRF-20		CXRF-21		CXRF-21		CXRF-21		CXRF-22		CXRF-22		CXRF-22		CXRF-22		CXRF-23	
			Field Sample ID	CXRF-20(5-8)		CXRF-20(8-10)		CXRF-21(0-5)		CXRF-21(5-8)		CXRF-21(8-11)		CXRF-22(0-5)		CXRF-22(10-12)		CXRF-22(5-8)		CXRF-22(8-10)		CXRF-23(0-5)	
			Sample Start Depth	5		8		0		5		8		0		10		5		8		0	
			Sample End Depth	8		10		5		8		11		5		12		8		10		5	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

		Location ID	CXRF-20		CXRF-20		CXRF-21		CXRF-21		CXRF-21		CXRF-22		CXRF-22		CXRF-22		CXRF-22		CXRF-23	
		Field Sample ID	CXRF-20(5-8)		CXRF-20(8-10)		CXRF-21(0-5)		CXRF-21(5-8)		CXRF-21(8-11)		CXRF-22(0-5)		CXRF-22(10-12)		CXRF-22(5-8)		CXRF-22(8-10)		CXRF-23(0-5)	
		Sample Start Depth	5		8		0		5		8		0		10		5		8		0	
		Sample End Depth	8		10		5		8		11		5		12		8		10		5	
		Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
		Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg																				
Metals	Arsenic	7440-38-2	mg/kg																				
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg																				
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	161		140	U	597		727		232		358		793		399		560	B	1554	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg																				
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg																	41			
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg																				
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-23		CXRF-23		CXRF-23		CXRF-23		CXRF-24		CXRF-25		CXRF-25		CXRF-25		CXRF-25		CXRF-26	
			Field Sample ID	CXRF-23(10-12)		CXRF-23(10-12)		CXRF-23(5-8)		CXRF-23(8-10)		CXRF-24(0-5)		CXRF-25(0-5)		CXRF-25(10-12)		CXRF-25(5-8)		CXRF-25(8-10)		CXRF-26(0-5)	
			Sample Start Depth	10		10		5		8		0		0		10		5		8		0	
			Sample End Depth	11		12		8		10		5		5		12		8		10		5	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-23		CXRF-23		CXRF-23		CXRF-23		CXRF-24		CXRF-25		CXRF-25		CXRF-25		CXRF-25		CXRF-26	
			Field Sample ID	CXRF-23(10-12)		CXRF-23(10-12)		CXRF-23(5-8)		CXRF-23(8-10)		CXRF-24(0-5)		CXRF-25(0-5)		CXRF-25(10-12)		CXRF-25(5-8)		CXRF-25(8-10)		CXRF-26(0-5)	
			Sample Start Depth	10		10		5		8		0		0		10		5		8		0	
			Sample End Depth	11		12		8		10		5		5		12		8		10		5	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-23		CXRF-23		CXRF-23		CXRF-23		CXRF-24		CXRF-25		CXRF-25		CXRF-25		CXRF-25		CXRF-26	
			Field Sample ID	CXRF-23(10-12)		CXRF-23(10-12)		CXRF-23(5-8)		CXRF-23(8-10)		CXRF-24(0-5)		CXRF-25(0-5)		CXRF-25(10-12)		CXRF-25(5-8)		CXRF-25(8-10)		CXRF-26(0-5)	
			Sample Start Depth	10		10		5		8		0		0		10		5		8		0	
			Sample End Depth	11		12		8		10		5		5		12		8		10		5	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg																				
Metals	Arsenic	7440-38-2	mg/kg																				
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg																				
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	1600	B	1870		1135		1262		99		212		116	U	132	U	128	U	129	U
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg																				
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	67																			
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg																				
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-26		CXRF-26		CXRF-26		CXRF-27		CXRF-27		CXRF-27		CXRF-27		CXRF-28		CXRF-28		CXRF-28	
			Field Sample ID	CXRF-26(10-14)		CXRF-26(5-8)		CXRF-26(8-10)		CXRF-27(0-5)		CXRF-27(10-14)		CXRF-27(5-8)		CXRF-27(8-10)		CXRF-28(0-5)		CXRF-28(10-14)		CXRF-28(5-8)	
			Sample Start Depth	10		5		8		0		10		5		8		0		10		5	
			Sample End Depth	14		8		10		5		14		8		10		5		14		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-26		CXRF-26		CXRF-26		CXRF-27		CXRF-27		CXRF-27		CXRF-27		CXRF-28		CXRF-28		CXRF-28	
			Field Sample ID	CXRF-26(10-14)		CXRF-26(5-8)		CXRF-26(8-10)		CXRF-27(0-5)		CXRF-27(10-14)		CXRF-27(5-8)		CXRF-27(8-10)		CXRF-28(0-5)		CXRF-28(10-14)		CXRF-28(5-8)	
			Sample Start Depth	10		5		8		0		10		5		8		0		10		5	
			Sample End Depth	14		8		10		5		14		8		10		5		14		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-26		CXRF-26		CXRF-26		CXRF-27		CXRF-27		CXRF-27		CXRF-27		CXRF-28		CXRF-28		CXRF-28	
			Field Sample ID	CXRF-26(10-14)		CXRF-26(5-8)		CXRF-26(8-10)		CXRF-27(0-5)		CXRF-27(10-14)		CXRF-27(5-8)		CXRF-27(8-10)		CXRF-28(0-5)		CXRF-28(10-14)		CXRF-28(5-8)	
			Sample Start Depth	10		5		8		0		10		5		8		0		10		5	
			Sample End Depth	14		8		10		5		14		8		10		5		14		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg																				
Metals	Arsenic	7440-38-2	mg/kg																				
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg																				
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	66	B	154	U	99	U	190		152	U	400	B	145		145	U	285		130	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg																				
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.5										12									
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg																				
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-28		CXRF-29		CXRF-29		CXRF-29		CXRF-29		CXRF-30		CXRF-30		CXRF-30		CXRF-31		CXRF-31	
			Field Sample ID	CXRF-28(8-10)		CXRF-29(0-5)		CXRF-29(10-15)		CXRF-29(5-8)		CXRF-29(8-10)		CXRF-30(0-5)/TW1		CXRF-30(10-11)/TW1		CXRF-30(5-8)/TW1		CXRF-31(0-5)/TW2		CXRF-31(5-8)/TW2	
			Sample Start Depth	8		0		10		5		8		0		10		5		0		5	
			Sample End Depth	10		5		15		8		10		5		11		8		5		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-28		CXRF-29		CXRF-29		CXRF-29		CXRF-29		CXRF-30		CXRF-30		CXRF-30		CXRF-31		CXRF-31	
			Field Sample ID	CXRF-28(8-10)		CXRF-29(0-5)		CXRF-29(10-15)		CXRF-29(5-8)		CXRF-29(8-10)		CXRF-30(0-5)/TW1		CXRF-30(10-11)/TW1		CXRF-30(5-8)/TW1		CXRF-31(0-5)/TW2		CXRF-31(5-8)/TW2	
			Sample Start Depth	8		0		10		5		8		0		10		5		0		5	
			Sample End Depth	10		5		15		8		10		5		11		8		5		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-28		CXRF-29		CXRF-29		CXRF-29		CXRF-29		CXRF-30		CXRF-30		CXRF-30		CXRF-31		CXRF-31	
			Field Sample ID	CXRF-28(8-10)		CXRF-29(0-5)		CXRF-29(10-15)		CXRF-29(5-8)		CXRF-29(8-10)		CXRF-30(0-5)/TW1		CXRF-30(10-11)/TW1		CXRF-30(5-8)/TW1		CXRF-31(0-5)/TW2		CXRF-31(5-8)/TW2	
			Sample Start Depth	8		0		10		5		8		0		10		5		0		5	
			Sample End Depth	10		5		15		8		10		5		11		8		5		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg																				
Metals	Arsenic	7440-38-2	mg/kg																				
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg																				
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	128		135	U	155	U	100		132	U	43		291		670		42		300	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg																				
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg											0.2	J			0.3	J	0.5	U	1.9	
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg																				
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-32		CXRF-32		CXRF-32		CXRF-33		CXRF-33		CXRF-33		CXRF-34		CXRF-34		CXRF-34		CXRF-35	
			Field Sample ID	CXRF-32(0-5)/TW3		CXRF-32(10-13)/TW3		CXRF-32(5-8)/TW3		CXRF-33(0-5)/TW4		CXRF-33(10-12)/TW4		CXRF-33(5-8)/TW4		CXRF-34(0-5)		CXRF-34(5-8)		CXRF-34(8-10)		CXRF-35(0-5)	
			Sample Start Depth	0		10		5		0		10		5		0		5		8		0	
			Sample End Depth	5		13		8		5		12		8		5		8		10		5	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-32		CXRF-32		CXRF-32		CXRF-33		CXRF-33		CXRF-33		CXRF-34		CXRF-34		CXRF-34		CXRF-35	
			Field Sample ID	CXRF-32(0-5)/TW3		CXRF-32(10-13)/TW3		CXRF-32(5-8)/TW3		CXRF-33(0-5)/TW4		CXRF-33(10-12)/TW4		CXRF-33(5-8)/TW4		CXRF-34(0-5)		CXRF-34(5-8)		CXRF-34(8-10)		CXRF-35(0-5)	
			Sample Start Depth	0		10		5		0		10		5		0		5		8		0	
			Sample End Depth	5		13		8		5		12		8		5		8		10		5	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-32		CXRF-32		CXRF-32		CXRF-33		CXRF-33		CXRF-33		CXRF-34		CXRF-34		CXRF-34		CXRF-35	
			Field Sample ID	CXRF-32(0-5)/TW3		CXRF-32(10-13)/TW3		CXRF-32(5-8)/TW3		CXRF-33(0-5)/TW4		CXRF-33(10-12)/TW4		CXRF-33(5-8)/TW4		CXRF-34(0-5)		CXRF-34(5-8)		CXRF-34(8-10)		CXRF-35(0-5)	
			Sample Start Depth	0		10		5		0		10		5		0		5		8		0	
			Sample End Depth	5		13		8		5		12		8		5		8		10		5	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg																				
Metals	Arsenic	7440-38-2	mg/kg																				
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg																				
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	41		730		1442		54		759		840		62		340		389		85	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg																				
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.5	U	6.8				0.2	J			2.1		0.2	J	0.6	U			0.2	J
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg																				
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-35		CXRF-35		CXRF-35		CXRF-36		CXRF-36		CXRF-36		CXRF-36		CXRF-37		CXRF-37		CXRF-37	
			Field Sample ID	CXRF-35(10-14)		CXRF-35(5-8)		CXRF-35(8-10)		CXRF-36(0-5)		CXRF-36(10-13)		CXRF-36(5-7)		CXRF-36(7-10)		CXRF-37(0-5)		CXRF-37(10-14)		CXRF-37(5-7)	
			Sample Start Depth	10		5		8		0		10		5		7		0		10		5	
			Sample End Depth	14		8				5		13		7		10		5		14		7	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-35		CXRF-35		CXRF-35		CXRF-36		CXRF-36		CXRF-36		CXRF-36		CXRF-37		CXRF-37		CXRF-37	
			Field Sample ID	CXRF-35(10-14)		CXRF-35(5-8)		CXRF-35(8-10)		CXRF-36(0-5)		CXRF-36(10-13)		CXRF-36(5-7)		CXRF-36(7-10)		CXRF-37(0-5)		CXRF-37(10-14)		CXRF-37(5-7)	
			Sample Start Depth	10		5		8		0		10		5		7		0		10		5	
			Sample End Depth	14			8			5		13		7		10		5		14		7	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-35		CXRF-35		CXRF-35		CXRF-36		CXRF-36		CXRF-36		CXRF-36		CXRF-37		CXRF-37		CXRF-37	
			Field Sample ID	CXRF-35(10-14)		CXRF-35(5-8)		CXRF-35(8-10)		CXRF-36(0-5)		CXRF-36(10-13)		CXRF-36(5-7)		CXRF-36(7-10)		CXRF-37(0-5)		CXRF-37(10-14)		CXRF-37(5-7)	
			Sample Start Depth	10		5		8		0		10		5		7		0		10		5	
			Sample End Depth	14		8				5		13		7		10		5		14		7	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg																				
Metals	Arsenic	7440-38-2	mg/kg																				
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg																				
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	396		157		1100		130		230		102		120	J	54	F1	150		99	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg																				
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg					0.2	J	0.7		2.4						0.2	J				
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg																				
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-37		CXRF-38		CXRF-38		CXRF-38		CXRF-38		CXRF-39		CXRF-39		CXRF-39		CXRF-39		D-B1	
			Field Sample ID	CXRF-37(7-10)		CXRF-38(0-5)		CXRF-38(10-12)		CXRF-38(5-7)		CXRF-38(7-10)		CXRF-39(0-5)		CXRF-39(10-12)		CXRF-39(5-7)		CXRF-39(7-10)		C022007-DB1	
			Sample Start Depth	7		0		10		5		7		0		10		5		7		8	
			Sample End Depth	10		5		12		7		10		5		12		7		10		9	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		2/20/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																			0.0024	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																			0.0024	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																			0.0024	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																			0.0024	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																			0.0024	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																			0.0024	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																			0.0024	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																			0.0024	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																			0.0024	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																			0.0024	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																			0.0024	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																			0.0024	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																			0.0024	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																			0.0024	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																			0.0024	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																			0.0024	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																			0.0024	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																			0.0024	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																			0.0024	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																			0.0024	U
VOCs	1,4-Dioxane	123-91-1	mg/kg																			0.24	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																			0.0024	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg																			0.0024	U
VOCs	2-Hexanone	591-78-6	mg/kg																			0.019	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg																			0.0024	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																			0.0024	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																			0.019	U
VOCs	Acetone	67-64-1	mg/kg																			0.24	UJ
VOCs	Benzene	71-43-2	mg/kg																			0.0024	U
VOCs	Bromobenzene	108-86-1	mg/kg																			0.0024	U
VOCs	Bromoform	75-25-2	mg/kg																			0.0024	U
VOCs	Bromomethane	74-83-9	mg/kg																			0.0049	U
VOCs	Carbon disulfide	75-15-0	mg/kg																			0.0024	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg																			0.0024	U
VOCs	Chlorobenzene	108-90-7	mg/kg																			0.0024	U
VOCs	Chlorobromomethane	74-97-5	mg/kg																			0.0024	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg																			0.0024	U
VOCs	Chloroethane	75-00-3	mg/kg																			0.0049	U
VOCs	Chloroform	67-66-3	mg/kg																			0.0024	U
VOCs	Chloromethane	74-87-3	mg/kg																			0.0049	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																			0.0024	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																			0.0024	U
VOCs	Dibromomethane	74-95-3	mg/kg																			0.0024	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg																			0.0024	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																			0.0049	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg																			0.0024	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																			0.0024	U
VOCs	Ethylbenzene	100-41-4	mg/kg																			0.0024	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																			0.0024	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																			0.0024	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																			0.0024	U
VOCs	m&p-Xylenes	NA	mg/kg																			0.0024	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																			0.019	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																			0.0024	U
VOCs	Methylene Chloride	75-09-2	mg/kg																			0.0049	U
VOCs	n-Butylbenzene	104-51-8	mg/kg																			0.0024	U
VOCs	N-Propylbenzene	103-65-1	mg/kg																			0.0024	U
VOCs	Naphthalene	91-20-3	mg/kg																			0.024	U
VOCs	o-Xylene	95-47-6	mg/kg																			0.0024	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg																			0.0024	U
VOCs	Styrene	100-42-5	mg/kg																			0.0024	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																			0.0024	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg																			0.0024	U
VOCs	Tetrachloroethene	127-18-4	mg/kg																			0.0024	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg																			0.019	U
VOCs	Toluene	108-88-3	mg/kg																			0.0024	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																			0.0024	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																			0.0024	U
VOCs	Trichloroethene	79-01-6	mg/kg																			0.0024	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																			0.0024	U
VOCs	Vinyl chloride	75-01-4	mg/kg																			0.0049	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-37		CXRF-38		CXRF-38		CXRF-38		CXRF-38		CXRF-39		CXRF-39		CXRF-39		CXRF-39		D-B1	
			Field Sample ID	CXRF-37(7-10)		CXRF-38(0-5)		CXRF-38(10-12)		CXRF-38(5-7)		CXRF-38(7-10)		CXRF-39(0-5)		CXRF-39(10-12)		CXRF-39(5-7)		CXRF-39(7-10)		C022007-DB1	
			Sample Start Depth	7		0		10		5		7		0		10		5		7		8	
			Sample End Depth	10		5		12		7		10		5		12		7		10		9	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		2/20/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																			0.37	U
EPH	Acenaphthene	83-32-9	mg/kg																			0.37	U
EPH	Acenaphthylene	208-96-8	mg/kg																			0.37	U
EPH	Anthracene	120-12-7	mg/kg																			0.37	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg																			0.37	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg																			0.37	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																			0.37	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																			0.37	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																			0.37	U
EPH	C11-C22 Aromatics	NA	mg/kg																			3.7	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																			3.7	U
EPH	C19-C36 Aliphatics	NA	mg/kg																			3.7	U
EPH	C9-C18 Aliphatics	NA	mg/kg																			3.7	U
EPH	Chrysene	218-01-9	mg/kg																			0.37	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																			0.37	U
EPH	Fluoranthene	206-44-0	mg/kg																			0.37	U
EPH	Fluorene	86-73-7	mg/kg																			0.37	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																			0.37	U
EPH	Naphthalene	91-20-3	mg/kg																			0.37	U
EPH	Phenanthrene	85-01-8	mg/kg																			0.37	U
EPH	Pyrene	129-00-0	mg/kg																			0.37	U
EPH	Total EPH	NA	mg/kg																			3.7	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	CXRF-37		CXRF-38		CXRF-38		CXRF-38		CXRF-38		CXRF-39		CXRF-39		CXRF-39		CXRF-39		D-B1	
			Field Sample ID	CXRF-37(7-10)		CXRF-38(0-5)		CXRF-38(10-12)		CXRF-38(5-7)		CXRF-38(7-10)		CXRF-39(0-5)		CXRF-39(10-12)		CXRF-39(5-7)		CXRF-39(7-10)		C022007-DB1	
			Sample Start Depth	7		0		10		5		7		0		10		5		7		8	
			Sample End Depth	10		5		12		7		10		5		12		7		10		9	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		2/20/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																			23,000	
Metals	Antimony	7440-36-0	mg/kg																			8.2	J
Metals	Arsenic	7440-38-2	mg/kg																			52	
Metals	Barium	7440-39-3	mg/kg																			100	B
Metals	Beryllium	7440-41-7	mg/kg																			1.2	U
Metals	Cadmium	7440-43-9	mg/kg																			0.54	J
Metals	Calcium	7440-70-2	mg/kg																			2,900	B
Metals	Chromium	7440-47-3	mg/kg	300		110		444		424		620		38		249		394		930		610	
Metals	Cobalt	7440-48-4	mg/kg																			19	
Metals	Copper	7440-50-8	mg/kg																			440	B
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.3	J	0.6						2.3		0.5	U					0.2	J	21	J
Metals	Iron	7439-89-6	mg/kg																			34,000	
Metals	Lead	7439-92-1	mg/kg																			7.7	
Metals	Magnesium	7439-95-4	mg/kg																			15,000	
Metals	Manganese	7439-96-5	mg/kg																			410	
Metals	Mercury	7439-97-6	mg/kg																			0.081	U
Metals	Nickel	7440-02-0	mg/kg																			74	
Metals	Potassium	7440-09-7	mg/kg																			7,200	J
Metals	Selenium	7782-49-2	mg/kg																			3	U
Metals	Silver	7440-22-4	mg/kg																			11	
Metals	Sodium	7440-23-5	mg/kg																			600	U
Metals	Thallium	7440-28-0	mg/kg																			6	U
Metals	Vanadium	7440-62-2	mg/kg																			59	
Metals	Zinc	7440-66-6	mg/kg																			69	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	D-S1		D-S2		D-S3		D-S4		E-B1		E-S1		E-S2		E-S3		E-S4		F-B1	
			Field Sample ID	C022007-DS1		C022007-DS2		C022007-DS3		C022007-DS4		C022207-EB1		C022207-ES1		C022207-ES2		C022207-ES3		C022207-ES4		C022207-FB1	
			Sample Start Depth	2		2		2		2		10		3		4		1		3		11	
			Sample End Depth	9		9		9		9		11		10		9		9		3		12	
			Sample Date	2/20/2007		2/20/2007		2/20/2007		2/20/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	J	0.0027	U	0.0027	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.24	U	0.23	U	0.27	U	0.3	U	0.27	U	0.29	U	0.26	U	12	U	0.27	U	0.27	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.019	U	0.019	U	0.021	U	0.024	U	0.021	U	0.023	U	0.021	U	1	U	0.021	U	0.021	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.019	U	0.019	U	0.021	U	0.024	U	0.021	U	0.023	U	0.021	U	1	U	0.021	U	0.021	U
VOCs	Acetone	67-64-1	mg/kg	0.24	UJ	0.23	U	0.27	U	0.3	UJ	0.27	UJ	0.29	UJ	0.26	UJ	12	U	0.27	UJ	0.27	UJ
VOCs	Benzene	71-43-2	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Bromoform	75-25-2	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Bromomethane	74-83-9	mg/kg	0.0048	U	0.0047	U	0.0053	U	0.0061	U	0.0053	U	0.0058	U	0.0051	U	0.25	U	0.0053	U	0.0053	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Chloroethane	75-00-3	mg/kg	0.0048	U	0.0047	U	0.0053	U	0.0061	U	0.0053	U	0.0058	U	0.0051	U	0.25	U	0.0053	U	0.0053	U
VOCs	Chloroform	67-66-3	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Chloromethane	74-87-3	mg/kg	0.0048	U	0.0047	U	0.0053	U	0.0061	U	0.0053	U	0.0058	U	0.0051	U	0.25	U	0.0053	U	0.0053	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026		0.12	U	0.0027	U	0.0027	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0048	U	0.0047	U	0.0053	U	0.0061	U	0.0053	U	0.0058	U	0.0051	U	0.25	U	0.0053	UJ	0.0053	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	UJ	0.0029	UJ	0.0026	UJ	0.12	U	0.0027	UJ	0.0027	UJ
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	m&p-Xylenes	NA	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0022	J	0.0027	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.019	U	0.019	U	0.021	U	0.024	U	0.021	U	0.023	U	0.021	U	1	U	0.021	U	0.021	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0048	U	0.0047	U	0.0053	U	0.0061	U	0.0053	U	0.0058	U	0.0051	U	0.25	U	0.0053	U	0.0053	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Naphthalene	91-20-3	mg/kg	0.024	U	0.023	U	0.027	U	0.03	U	0.027	U	0.029	U	0.026	U	1.2	U	0.027	U	0.027	U
VOCs	o-Xylene	95-47-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Styrene	100-42-5	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0024	J	0.12	U	0.0027	U	0.0027	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.019	U	0.019	U	0.021	U	0.024	U	0.021	U	0.023	U	0.021	U	1	U	0.021	U	0.021	U
VOCs	Toluene	108-88-3	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0075		0.031		0.088	J	0.0017	J	0.0027	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0048	U	0.0047	U	0.0053	U	0.0061	U	0.0053	U	0.0058	U	0.0051	U	0.25	U	0.0053	U	0.0053	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	D-S1		D-S2		D-S3		D-S4		E-B1		E-S1		E-S2		E-S3		E-S4		F-B1	
			Field Sample ID	C022007-DS1		C022007-DS2		C022007-DS3		C022007-DS4		C022207-EB1		C022207-ES1		C022207-ES2		C022207-ES3		C022207-ES4		C022207-FB1	
			Sample Start Depth	2		2		2		2		10		3		4		1		3		11	
			Sample End Depth	9		9		9		9		11		10		9		9		3		12	
			Sample Date	2/20/2007		2/20/2007		2/20/2007		2/20/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.37	U	0.35	U	0.38	U
EPH	Acenaphthene	83-32-9	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.37	U	0.35	U	0.38	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.37	U	0.35	U	0.38	U
EPH	Anthracene	120-12-7	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.53		0.35	U	0.38	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	1.3		0.45		0.38	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.84		0.35	U	0.38	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.83		0.35	U	0.38	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.37	U	0.35	U	0.38	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.83		0.35	U	0.38	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.6	U	3.6	U	3.7	U	3.7	U	6		5.1		3.7	U	21		19		5.1	J
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	3.6	U	3.6	U	3.7	U	3.7	U	6		5.1		3.7	U	33		22		5.1	J
EPH	C19-C36 Aliphatics	NA	mg/kg	3.6	U	3.6	U	3.7	U	3.7	U	4.3		3.6	U	3.7	U	3.7	U	8		3.8	U
EPH	C9-C18 Aliphatics	NA	mg/kg	3.6	U	3.6	U	3.7	U	3.7	U	3.7	U	3.6	U	3.7	U	3.7	U	25		3.8	U
EPH	Chrysene	218-01-9	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.96		0.46		0.38	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.37	U	0.35	U	0.38	U
EPH	Fluoranthene	206-44-0	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	2.4		0.83		0.38	U
EPH	Fluorene	86-73-7	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.37	U	0.35	U	0.38	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.39		0.35	U	0.38	U
EPH	Naphthalene	91-20-3	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.37	U	0.35	U	0.38	U
EPH	Phenanthrene	85-01-8	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	1.4		0.59		0.38	U
EPH	Pyrene	129-00-0	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	2.2		0.73		0.38	U
EPH	Total EPH	NA	mg/kg	3.6	U	3.6	U	3.7	U	3.7	U	10		5.1		3.7	U	21		51		5.1	J
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	D-S1		D-S2		D-S3		D-S4		E-B1		E-S1		E-S2		E-S3		E-S4		F-B1	
			Field Sample ID	C022007-DS1		C022007-DS2		C022007-DS3		C022007-DS4		C022207-EB1		C022207-ES1		C022207-ES2		C022207-ES3		C022207-ES4		C022207-FB1	
			Sample Start Depth	2		2		2		2		10		3		4		1		3		11	
			Sample End Depth	9		9		9		9		11		10		9		9		3		12	
			Sample Date	2/20/2007		2/20/2007		2/20/2007		2/20/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	13,000		18,000		18,000		17,000		14,000		8,200		14,000		13,000		9,800		9,900	
Metals	Antimony	7440-36-0	mg/kg	5.3	J	9.3	J	5.9	J	3.5	J	20	J	14	J	3.4	UJ	2.9	J	5.5	J	2.1	J
Metals	Arsenic	7440-38-2	mg/kg	46		47		45		31		54		32		28		40		56		21	
Metals	Barium	7440-39-3	mg/kg	56	B	79	B	70	B	77	B	70		36		47		44		30		33	
Metals	Beryllium	7440-41-7	mg/kg	1.3	U	1.2	U	1.4	U	1.1	U	1.3	U	1.3	U	1.4	U	1.2	U	1.4	U	1.3	U
Metals	Cadmium	7440-43-9	mg/kg	0.36	J	0.43	J	0.43	J	0.38	J	0.61	J	0.25	J	0.6	J	0.3	J	0.2	J	0.28	J
Metals	Calcium	7440-70-2	mg/kg	1,800	B	2,000	B	1,900	B	1,800	B	2,700	B	1,300	B	1,700	B	1,500	B	1,300	B	1,700	B
Metals	Chromium	7440-47-3	mg/kg	430		740		430		250		1600	J	990	J	33	J	200	J	390	J	85	J
Metals	Cobalt	7440-48-4	mg/kg	11		13		13		11		14		5.6		8.3		9.4		7.5		7.3	
Metals	Copper	7440-50-8	mg/kg	180	B	260	B	190	B	370	B	790	J	84	J	26	J	28	J	110	J	180	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	32	J	58	J	0.57	J	32	J	180		43	J	2.1	UJ	60	J	2.4	J	0.24	J
Metals	Iron	7439-89-6	mg/kg	22,000		26,000		28,000		25,000		28,000		17,000		17,000		17,000		15,000		15,000	
Metals	Lead	7439-92-1	mg/kg	7.1		7.5		8.7		6.3		38		86		40		100		12		4.2	
Metals	Magnesium	7439-95-4	mg/kg	6,900		9,300		9,300		8,700		7,400		4,000		5,200		5,300		4,900		4,700	
Metals	Manganese	7439-96-5	mg/kg	280		380		380		420		1,000		150		280		270		190		440	
Metals	Mercury	7439-97-6	mg/kg	0.1	U	0.096	U	0.094	U	0.1	U	0.069	U	0.089	U	0.064	J	0.1	U	0.092	U	0.098	U
Metals	Nickel	7440-02-0	mg/kg	41		47		48		43		53		22		29		32		28		29	
Metals	Potassium	7440-09-7	mg/kg	3,000	J	4,000	J	3,800	J	4,200	J	4,700	J	1,700	J	1,600	J	1,900	J	1,600	J	1,900	J
Metals	Selenium	7782-49-2	mg/kg	3.4	U	3.1	U	3.5	U	2.8	U	3.3	U	3.3	U	3.4	U	2.9	U	3.4	U	3.2	U
Metals	Silver	7440-22-4	mg/kg	8		14		7.5		3.8		33		20		3.4	U	3.4		7.4		1	J
Metals	Sodium	7440-23-5	mg/kg	610	U	610	U	690	U	570	U	64	U	38	U	44	U	35	U	34	U	650	U
Metals	Thallium	7440-28-0	mg/kg	6.7	U	6.1	U	6.9	U	5.7	U	6.6	U	6.7	U	6.9	U	5.9	U	6.8	U	6.5	U
Metals	Vanadium	7440-62-2	mg/kg	30		39		35		33		30		20		25		24		21		18	
Metals	Zinc	7440-66-6	mg/kg	38		44		45		40		50		22		59		33		22		26	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg															0.76	NJ				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg					0.00096	NJ														
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg															1.1	NJ				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	F-S1		F-S2		F-S3		F-S4		G-B1		G-S1		G-S2		G-S3		G-S4		PAH-B1	
			Field Sample ID	C022207-FS1		C022207-FS2		C022207-FS3		C022207-FS4		C022107-GB1		C022107-GS1		C022107-GS2		C022107-GS3		C022107-GS4		C022007-PAHB1	
			Sample Start Depth	4		5		4		3		11		4		4		4		4		11	
			Sample End Depth	11		11		11		12		12		5		5		5		5		12	
			Sample Date	2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/21/2007		2/21/2007		2/21/2007		2/21/2007		2/21/2007		2/20/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.25	U	0.23	U	0.26	U	0.25	U	0.24	U	0.24	U	0.18	U	0.26	U	0.18	U	0.24	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.02	U	0.019	U	0.021	U	0.02	U	0.019	U	0.019	U	0.014	U	0.021	U	0.015	U	0.019	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.02	U	0.019	U	0.021	U	0.02	U	0.019	U	0.019	U	0.014	U	0.021	U	0.015	U	0.019	U
VOCs	Acetone	67-64-1	mg/kg	0.25	UJ	0.23	UJ	0.26	UJ	0.25	UJ	0.24	UJ	0.24	UJ	0.18	UJ	0.26	UJ	0.18	UJ	0.24	UJ
VOCs	Benzene	71-43-2	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Bromoform	75-25-2	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Bromomethane	74-83-9	mg/kg	0.0049	U	0.0047	U	0.0052	U	0.0049	U	0.0049	U	0.0048	U	0.0036	U	0.0052	U	0.0036	U	0.0048	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Chloroethane	75-00-3	mg/kg	0.0049	U	0.0047	U	0.0052	U	0.0049	U	0.0049	U	0.0048	U	0.0036	U	0.0052	U	0.0036	U	0.0048	U
VOCs	Chloroform	67-66-3	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Chloromethane	74-87-3	mg/kg	0.0049	U	0.0047	U	0.0052	U	0.0049	U	0.0049	U	0.0048	U	0.0036	U	0.0052	U	0.0036	U	0.0048	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0032		0.0023	U	0.0026		0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.02	
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0049	U	0.0047	U	0.0052	UJ	0.0049	U	0.0049	U	0.0048	U	0.0036	U	0.0052	U	0.0036	U	0.0048	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0025	UJ	0.0023	UJ	0.0026	UJ	0.0025	UJ	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	m&p-Xylenes	NA	mg/kg	0.0025	U	0.0023	U	0.004		0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.02	U	0.019	U	0.021	U	0.02	U	0.019	U	0.019	U	0.014	U	0.021	U	0.015	U	0.019	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0049	U	0.0047	U	0.0052	U	0.0049	U	0.0049	U	0.0048	U	0.0036	U	0.0052	U	0.0036	U	0.0048	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Naphthalene	91-20-3	mg/kg	0.025	U	0.023	U	0.026	U	0.025	U	0.024	U	0.024	U	0.018	U	0.026	U	0.018	U	0.024	U
VOCs	o-Xylene	95-47-6	mg/kg	0.0025	U	0.0023	U	0.0011	J	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Styrene	100-42-5	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0015	J	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.02	U	0.019	U	0.021	U	0.02	U	0.019	U	0.019	U	0.014	U	0.021	U	0.015	U	0.019	U
VOCs	Toluene	108-88-3	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.012		0.0023	U	0.024		0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.001	J	0.0018	U	0.041	
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0049	U	0.0047	U	0.0052	U	0.0049	U	0.0049	U	0.0048	U	0.0036	U	0.0052	U	0.0036	U	0.0048	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	F-S1		F-S2		F-S3		F-S4		G-B1		G-S1		G-S2		G-S3		G-S4		PAH-B1	
			Field Sample ID	C022207-FS1		C022207-FS2		C022207-FS3		C022207-FS4		C022107-GB1		C022107-GS1		C022107-GS2		C022107-GS3		C022107-GS4		C022007-PAHB1	
			Sample Start Depth	4		5		4		3		11		4		4		4		4		11	
			Sample End Depth	11		11		11		12		12		5		5		5		5		12	
			Sample Date	2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/21/2007		2/21/2007		2/21/2007		2/21/2007		2/21/2007		2/20/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Acenaphthene	83-32-9	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Anthracene	120-12-7	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.8	U	3.7	U	3.6	U	5.1		3.8	U	3.7	U	3.8	U	3.8	U	3.8	U	3.8	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	3.8	U	3.7	U	3.6	U	5.1		3.8	U	3.7	U	3.8	U	3.8	U	3.8	U	3.8	U
EPH	C19-C36 Aliphatics	NA	mg/kg	3.8	U	3.7	U	3.6	U	5		3.8	U	3.7	U	3.8	U	3.8	U	3.8	U	3.8	U
EPH	C9-C18 Aliphatics	NA	mg/kg	3.8	U	3.7	U	3.6	U	3.7	U	3.8	U	3.7	U	3.8	U	3.8	U	3.8	U	3.8	U
EPH	Chrysene	218-01-9	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Fluoranthene	206-44-0	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Fluorene	86-73-7	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Naphthalene	91-20-3	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Phenanthrene	85-01-8	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Pyrene	129-00-0	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Total EPH	NA	mg/kg	3.8	U	3.7	U	3.6	U	10		3.8	U	3.7	U	3.8	U	3.8	U	3.8	U	3.8	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	F-S1		F-S2		F-S3		F-S4		G-B1		G-S1		G-S2		G-S3		G-S4		PAH-B1	
			Field Sample ID	C022207-FS1		C022207-FS2		C022207-FS3		C022207-FS4		C022107-GB1		C022107-GS1		C022107-GS2		C022107-GS3		C022107-GS4		C022007-PAHB1	
			Sample Start Depth	4		5		4		3		11		4		4		4		4		11	
			Sample End Depth	11		11		11		12		12		5		5		5		5		12	
			Sample Date	2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/21/2007		2/21/2007		2/21/2007		2/21/2007		2/21/2007		2/20/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	11,000		9,800		10,000		12,000		10,000		12,000		14,000		8,800		13,000		6,500	
Metals	Antimony	7440-36-0	mg/kg	5.4	J	5.1	J	14	J	7.7	J	4.1	J	3.1	UJ	4.6	J	1.3	J	1.3	J	3.2	UJ
Metals	Arsenic	7440-38-2	mg/kg	26		25		29		37		31		35		32		34		36		70	
Metals	Barium	7440-39-3	mg/kg	41		39		44		50		42	B	45	B	66	B	39	B	50	B	40	B
Metals	Beryllium	7440-41-7	mg/kg	1.5	U	1.4	U	1.3	U	1.3	U	1.2	U	1.2	U	1.4	U	1.3	U	1.4	U	1.3	U
Metals	Cadmium	7440-43-9	mg/kg	0.34	J	0.24	J	0.27	J	0.28	J	0.38	J	0.34	J	0.41	J	0.3	J	0.41	J	0.22	J
Metals	Calcium	7440-70-2	mg/kg	1,400	B	1,300	B	1,300	B	1,400	B	2,100	B	2,100	B	2,500	B	2,000	B	2,200	B	1,700	B
Metals	Chromium	7440-47-3	mg/kg	350	J	360	J	1200	J	590	J	270		74		380		62		100		37	
Metals	Cobalt	7440-48-4	mg/kg	7.6		7.8		7.6		9.9		8.8		9.4		10		7.3		9.6		5	
Metals	Copper	7440-50-8	mg/kg	51	J	70	J	140	J	87	J	200	B	37	B	140	B	50	B	48	B	110	B
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	220	J	0.32	J	70	J	0.55	J	0.47	J	0.29	J	0.28	J	0.26	J	9.6	J	0.29	J
Metals	Iron	7439-89-6	mg/kg	16,000		14,000		17,000		17,000		17,000		18,000		21,000		15,000		19,000		12,000	
Metals	Lead	7439-92-1	mg/kg	63		5.6		150		5.4		5		6.7		7.4		4.8		7.9		3.4	
Metals	Magnesium	7439-95-4	mg/kg	4,500		4,000		4,600		5,400		5,300		6,100		7,400		4,400		6,400		3,300	
Metals	Manganese	7439-96-5	mg/kg	250		210		240		270		250		270		260		240		230		170	
Metals	Mercury	7439-97-6	mg/kg	0.071	U	0.098	U	0.072	U	0.094	U	0.095	U	0.094	U	0.082	U	0.11	U	0.088	U	0.09	U
Metals	Nickel	7440-02-0	mg/kg	29		29		30		38		34		33		41		32		39		22	
Metals	Potassium	7440-09-7	mg/kg	1,700	J	1,800	J	1,700	J	1,900	J	2,200	J	2,000	J	2,900	J	1,900	J	2,200	J	1,500	J
Metals	Selenium	7782-49-2	mg/kg	3.7	U	3.4	U	3.2	U	3.4	U	3.1	U	3.1	U	3.6	U	3.3	U	3.4	U	3.2	U
Metals	Silver	7440-22-4	mg/kg	6.9		7.2		26		12		4.4		0.76	J	6.7		3.3	U	0.99	J	3.2	U
Metals	Sodium	7440-23-5	mg/kg	740	U	690	U	26	U	670	U	620	U	620	U	710	U	670	U	680	U	640	U
Metals	Thallium	7440-28-0	mg/kg	7.4	U	6.9	U	6.3	U	6.7	U	6.2	U	6.2	U	7.1	U	6.7	U	6.8	U	6.4	U
Metals	Vanadium	7440-62-2	mg/kg	19		16		18		20		20		24		30		18		25		13	
Metals	Zinc	7440-66-6	mg/kg	28		24		26		28		32		31		36		26		35		23	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	PAH-S1		PAH-S2		PAH-S3		PAH-S4		PRA1-B1		PRA1-B2		PRA1-B3		PRA1-S1		PRA1-S2		PRA1-S3	
			Field Sample ID	C022007-PAHS1		C022007-PAHS2		C022007-PAHS3		C022007-PAHS4		C022307-PRA1B1		C022307-PRA1B2		C022307-PRA1B3		C022307-PRA1S1		C022307-PRA1S2		C022307-PRA1S3	
			Sample Start Depth	3		3		3		3		5		5		5		3		3		2	
			Sample End Depth	12		12		12		12		6		6		6		5		5		5	
			Sample Date	2/20/2007		2/20/2007		2/20/2007		2/20/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	J	0.65		0.13	U	0.0021	U	0.0029	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	J	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.12	J	0.42		0.13	U	0.0021	U	0.0029	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.23	U	0.24	U	0.23	U	0.24	U	13	U	13	U	26	U	13	U	0.21	U	0.29	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.018	U	0.019	U	0.018	U	0.019	U	1	U	1	U	2.1	U	1.1	U	0.016	U	0.023	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.018	U	0.019	U	0.018	U	0.019	U	1	U	1	U	2.1	U	1.1	U	0.016	U	0.023	U
VOCs	Acetone	67-64-1	mg/kg	0.23	UJ	0.24	UJ	0.23	UJ	0.24	UJ	13	U	13	U	26	U	13	UJ	0.21	UJ	0.29	UJ
VOCs	Benzene	71-43-2	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Bromoform	75-25-2	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Bromomethane	74-83-9	mg/kg	0.0045	U	0.0049	U	0.0046	U	0.0048	U	0.25	U	0.26	U	0.51	U	0.27	U	0.0041	U	0.0057	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Chloroethane	75-00-3	mg/kg	0.0045	U	0.0049	U	0.0046	U	0.0048	U	0.25	U	0.26	U	0.51	U	0.27	U	0.0041	U	0.0057	U
VOCs	Chloroform	67-66-3	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Chloromethane	74-87-3	mg/kg	0.0045	U	0.0049	U	0.0046	U	0.0048	U	0.25	U	0.26	U	0.51	U	0.27	U	0.0041	U	0.0057	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.3		0.13	U	0.0021	U	0.0029	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0045	U	0.0049	U	0.0046	U	0.0048	U	0.25	U	0.26	UJ	0.51	UJ	0.27	U	0.0041	U	0.0057	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.15		70		470		0.078	J	0.0021	U	0.0029	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	UJ	0.0029	UJ
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.94	J	4.7		0.13	U	0.0021	U	0.0029	U
VOCs	m&p-Xylenes	NA	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.68		310		1,800		0.29		0.0018	J	0.0012	J
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.018	U	0.019	U	0.018	U	0.019	U	1	U	1	U	2.1	U	1.1	U	0.016	U	0.023	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0045	U	0.0049	U	0.0046	U	0.0048	U	0.25	U	0.26	U	0.51	U	0.27	U	0.0041	U	0.0057	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.12	J	0.13	U	0.0021	U	0.0029	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.39	J	1.5		0.13	U	0.0021	U	0.0029	U
VOCs	Naphthalene	91-20-3	mg/kg	0.023	U	0.024	U	0.023	U	0.024	U	1.3	U	1.3	U	1.9	J	1.3	U	0.021	U	0.029	U
VOCs	o-Xylene	95-47-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.14		92		550		0.12	J	0.0021	U	0.0029	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Styrene	100-42-5	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.22	J	0.058	J	0.0021	U	0.0042	
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.018	U	0.019	U	0.018	U	0.019	U	1	U	1	U	2.1	U	1.1	U	0.016	U	0.023	U
VOCs	Toluene	108-88-3	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	5	J	81		0.13	U	0.0021	U	0.0029	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.069	J	4.9		0.23		0.0032		0.041	
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0045	U	0.0049	U	0.0046	U	0.0048	U	0.25	U	0.26	U	0.51	U	0.27	U	0.0041	U	0.0057	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	PAH-S1		PAH-S2		PAH-S3		PAH-S4		PRA1-B1		PRA1-B2		PRA1-B3		PRA1-S1		PRA1-S2		PRA1-S3	
			Field Sample ID	C022007-PAHS1		C022007-PAHS2		C022007-PAHS3		C022007-PAHS4		C022307-PRA1B1		C022307-PRA1B2		C022307-PRA1B3		C022307-PRA1S1		C022307-PRA1S2		C022307-PRA1S3	
			Sample Start Depth	3		3		3		3		5		5		5		3		3		2	
			Sample End Depth	12		12		12		12		6		6		6		5		5		5	
			Sample Date	2/20/2007		2/20/2007		2/20/2007		2/20/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	0.37	U	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Acenaphthene	83-32-9	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	0.68	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	0.37	U	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Anthracene	120-12-7	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	1.3	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.39		3.5	J	0.38	U	0.37	U	0.61		0.4	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	2.3	J	0.38	U	0.37	U	0.41		0.4	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	1.5	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	1.2	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	2.2	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.7	U	3.6	U	3.7	U	3.6	U	14		110	J	4.9		5		15		5.6	
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	3.7	U	3.6	U	3.7	U	3.6	U	16		140	J	4.9		5		19		5.6	
EPH	C19-C36 Aliphatics	NA	mg/kg	3.7	U	3.6	U	3.7	U	3.6	U	5.6		11		3.8	U	3.7	U	5.1		4	U
EPH	C9-C18 Aliphatics	NA	mg/kg	3.7	U	3.6	U	3.7	U	3.6	U	4		150	J	3.8	U	3.7	U	3.9	U	4	U
EPH	Chrysene	218-01-9	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.41		3.7	J	0.38	U	0.37	U	0.48		0.4	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	0.79	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Fluoranthene	206-44-0	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.65		5.6	J	0.38	U	0.37	U	1.3		0.4	U
EPH	Fluorene	86-73-7	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	0.59	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	0.98	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Naphthalene	91-20-3	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	0.47	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Phenanthrene	85-01-8	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.39		4.2	J	0.38	U	0.37	U	0.98		0.4	U
EPH	Pyrene	129-00-0	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.56		5.1	J	0.38	U	0.37	U	1.1		0.4	U
EPH	Total EPH	NA	mg/kg	3.7	U	3.6	U	3.7	U	3.6	U	23		270	J	4.9		5		20		5.6	
VPH	Benzene	71-43-2	mg/kg									0.27	U	0.19	U	2.8	U	0.28	U	0.32	U	0.31	U
VPH	C5-C8 Aliphatics	NA	mg/kg									2.7	U	1.9	U	28	U	2.8	U	3.2	U	3.1	U
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg									2.7	U	2.3	J	160		2.8	U	3.2	U	3.1	U
VPH	C9-C10 Aromatics	NA	mg/kg									2.7	U	32	J	740		2.8	U	3.2	U	3.1	U

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	PAH-S1		PAH-S2		PAH-S3		PAH-S4		PRA1-B1		PRA1-B2		PRA1-B3		PRA1-S1		PRA1-S2		PRA1-S3	
			Field Sample ID	C022007-PAHS1		C022007-PAHS2		C022007-PAHS3		C022007-PAHS4		C022307-PRA1B1		C022307-PRA1B2		C022307-PRA1B3		C022307-PRA1S1		C022307-PRA1S2		C022307-PRA1S3	
			Sample Start Depth	3		3		3		3		5		5		5		3		3		2	
			Sample End Depth	12		12		12		12		6		6		6		5		5		5	
			Sample Date	2/20/2007		2/20/2007		2/20/2007		2/20/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg									2.7	U	47	J	1,600		2.8	U	3.2	U	3.1	U
VPH	Ethylbenzene	100-41-4	mg/kg									0.27	U	29	J	680		0.28	U	0.32	U	0.31	U
VPH	m&p-Xylenes	NA	mg/kg									0.77		140	J	3,100		0.56	U	0.64	U	0.61	U
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg									0.053	U	0.037	U	1	U	0.056	U	0.064	U	0.061	U
VPH	Naphthalene	91-20-3	mg/kg									0.53	U	0.37	U	5.5	U	0.56	U	0.64	U	0.61	U
VPH	o-Xylene	95-47-6	mg/kg									0.27	U	39	J	750		0.28	U	0.32	U	0.31	U
VPH	Toluene	108-88-3	mg/kg									0.27	U	1.4	J	110		0.28	U	0.32	U	0.31	U
VPH	Total VPH	NA	mg/kg									2.7	U	79	J	2,300		2.8	U	3.2	U	3.1	U
Metals	Aluminum	7429-90-5	mg/kg	10,000		9,900		14,000		13,000		10,000		12,000		13,000		14,000		18,000		27,000	
Metals	Antimony	7440-36-0	mg/kg	8.1	J	3.3	UJ	3.3	UJ	3.4	UJ	2.5	J	2.5	J	3.1	J	3.6	J	1.9	J	20	J
Metals	Arsenic	7440-38-2	mg/kg	36		79		62		50		28		23		34		37		43		66	
Metals	Barium	7440-39-3	mg/kg	47	B	45	B	51	B	49	B	39		44		44		48		45		62	
Metals	Beryllium	7440-41-7	mg/kg	1.3	U	1.3	U	1.3	U	1.4	U	1.4	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U
Metals	Cadmium	7440-43-9	mg/kg	0.31	J	0.28	J	0.37	J	0.33	J	0.61	J	0.33	J	0.33	J	0.37	J	0.36	J	0.48	J
Metals	Calcium	7440-70-2	mg/kg	1,800	B	1,800	B	2,100	B	2,100	B	1,800	B	1,700	B	1,800	B	1,700	B	1,700	B	3,000	B
Metals	Chromium	7440-47-3	mg/kg	40		63		100		56		100	J	100	J	180	J	260	J	140	J	1500	J
Metals	Cobalt	7440-48-4	mg/kg	7.7		7.1		11		10		9.6		9.3		9.9		10		9.9		16	
Metals	Copper	7440-50-8	mg/kg	15	B	38	B	24	B	23	B	170	J	53	J	45	J	59	J	16	J	230	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.24	J	7	J	7	J	2.5	J	0.38	UJ	0.35	UJ	4.4	J	6.3	J	21	J	22	J
Metals	Iron	7439-89-6	mg/kg	16,000		16,000		21,000		19,000		16,000		18,000		19,000		18,000		21,000		30,000	
Metals	Lead	7439-92-1	mg/kg	4.8		17		22		19		15		11		9.4		15		8.9		15	
Metals	Magnesium	7439-95-4	mg/kg	5,600		5,100		7,000		6,700		5,500		6,000		5,700		6,200		6,400		10,000	
Metals	Manganese	7439-96-5	mg/kg	110		140		250		250		120		170		200		200		220		210	
Metals	Mercury	7439-97-6	mg/kg	0.082	U	0.094	U	0.047	J	0.1	U	0.076	U	0.083	U	0.035	J	0.063	J	0.044	J	0.052	J
Metals	Nickel	7440-02-0	mg/kg	27		29		37		39		44		34		36		36		37		48	
Metals	Potassium	7440-09-7	mg/kg	3,300	J	2,600	J	2,900	J	3,000	J	2,300	J	2,500	J	2,100	J	2,300	J	1,500	J	3,200	J
Metals	Selenium	7782-49-2	mg/kg	3.3	U	3.3	U	3.3	U	3.4	U	3.5	U	3.3	U	3.3	U	3.3	U	3.3	U	3.3	U
Metals	Silver	7440-22-4	mg/kg	3.3	U	3.3	U	0.88	J	3.4	U	2.3	J	1.4	J	3	J	4.6		2.2	J	31	
Metals	Sodium	7440-23-5	mg/kg	650	U	670	U	670	U	680	U	33	U	75	U	230	J	92	U	54	U	110	U
Metals	Thallium	7440-28-0	mg/kg	6.5	U	6.7	U	6.7	U	6.8	U	6.9	U	6.5	U	6.6	U	6.6	U	6.7	U	6.7	U
Metals	Vanadium	7440-62-2	mg/kg	22		21		30		28		23		26		26		28		32		52	
Metals	Zinc	7440-66-6	mg/kg	34		37		40		38		82		37		36		39		35		53	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	PRA1-S4		PRA1-S5		PRA1-S6	
			Field Sample ID	C022307-PRA1S4		C022307-PRA1S5		C022307-PRA1S6	
			Sample Start Depth	2		2		2	
			Sample End Depth	5		5		5	
			Sample Date	2/23/2007		2/23/2007		2/23/2007	
			Sample Purpose	REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.27	U	20	U	0.23	U
VOCs	1-Chlorohexane	544-10-5	mg/kg						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.021	U	1.6	U	0.019	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.021	U	1.6	U	0.019	U
VOCs	Acetone	67-64-1	mg/kg	0.27	UJ	20	U	0.23	UJ
VOCs	Benzene	71-43-2	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Bromoform	75-25-2	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Bromomethane	74-83-9	mg/kg	0.0053	U	0.4	U	0.0046	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Chloroethane	75-00-3	mg/kg	0.0053	U	0.4	U	0.0046	U
VOCs	Chloroform	67-66-3	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Chloromethane	74-87-3	mg/kg	0.0053	U	0.4	U	0.0046	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0011	J	0.2	U	0.0032	
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0053	U	0.4	UJ	0.0046	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0061		2.4		0.076	
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0027	UJ	0.2	U	0.0023	UJ
VOCs	Hexanal	0066-25-1	mg/kg						
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	m&p-Xylenes	NA	mg/kg	0.026		9.3		0.3	
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.021	U	1.6	U	0.019	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0053	U	0.4	U	0.0046	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Naphthalene	91-20-3	mg/kg	0.027	U	2	U	0.023	U
VOCs	o-Xylene	95-47-6	mg/kg	0.0075		0.2	U	0.054	
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Styrene	100-42-5	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.021	U	1.6	U	0.019	U
VOCs	Toluene	108-88-3	mg/kg	0.0033		0.2	U	0.0082	
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.0027	U	0.2	U	0.0011	J
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0053	U	0.4	U	0.0046	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg						

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

			Location ID	PRA1-S4		PRA1-S5		PRA1-S6	
			Field Sample ID	C022307-PRA1S4		C022307-PRA1S5		C022307-PRA1S6	
			Sample Start Depth	2		2		2	
			Sample End Depth	5		5		5	
			Sample Date	2/23/2007		2/23/2007		2/23/2007	
			Sample Purpose	REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg						
SVOCs	3-NITROANILINE	99-09-2	mg/kg						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg						
SVOCs	4-NITROANILINE	100-01-6	mg/kg						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg						
SVOCs	Acenaphthene	83-32-9	mg/kg						
SVOCs	Acenaphthylene	208-96-8	mg/kg						
SVOCs	Acetophenone	98-86-2	mg/kg						
SVOCs	Aniline	62-53-3	mg/kg						
SVOCs	Anthracene	120-12-7	mg/kg						
SVOCs	Azobenzene	103-33-3	mg/kg						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg						
SVOCs	CARBAZOLE	86-74-8	mg/kg						
SVOCs	Chrysene	218-01-9	mg/kg						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg						
SVOCs	Diethyl phthalate	84-66-2	mg/kg						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg						
SVOCs	Fluoranthene	206-44-0	mg/kg						
SVOCs	Fluorene	86-73-7	mg/kg						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg						
SVOCs	ISOPHORONE	78-59-1	mg/kg						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg						
SVOCs	Naphthalene	91-20-3	mg/kg						
SVOCs	NITROBENZENE	98-95-3	mg/kg						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg						
SVOCs	Phenanthrene	85-01-8	mg/kg						
SVOCs	PHENOL	108-95-2	mg/kg						
SVOCs	Pyrene	129-00-0	mg/kg						
PCBs	Aroclor 1016	12674-11-2	mg/kg						
PCBs	Aroclor 1221	11104-28-2	mg/kg						
PCBs	Aroclor 1232	11141-16-5	mg/kg						
PCBs	Aroclor 1242	53469-21-9	mg/kg						
PCBs	Aroclor 1248	12672-29-6	mg/kg						
PCBs	Aroclor 1254	11097-69-1	mg/kg						
PCBs	Aroclor 1260	11096-82-5	mg/kg						
PCBs	PCB-1262	37324-23-5	mg/kg						
PCBs	PCB-1268	11100-14-4	mg/kg						
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Acenaphthene	83-32-9	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Anthracene	120-12-7	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.37	U	0.38	U	0.36	U
EPH	C11-C22 Aromatics	NA	mg/kg	8.1		3.8	U	3.6	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	8.1		3.8	U	3.6	U
EPH	C19-C36 Aliphatics	NA	mg/kg	31		3.8	U	3.6	U
EPH	C9-C18 Aliphatics	NA	mg/kg	3.7	U	3.8	U	3.6	U
EPH	Chrysene	218-01-9	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Fluoranthene	206-44-0	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Fluorene	86-73-7	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Naphthalene	91-20-3	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Phenanthrene	85-01-8	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Pyrene	129-00-0	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Total EPH	NA	mg/kg	39		3.8	U	3.6	U
VPH	Benzene	71-43-2	mg/kg	0.26	U	0.3	U	0.26	U
VPH	C5-C8 Aliphatics	NA	mg/kg	2.6	U	3	U	2.6	U
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg	2.6	U	3	U	2.6	U
VPH	C9-C10 Aromatics	NA	mg/kg	2.6	U	3	U	2.6	U

Table 2
Soil Analytical Data
Former Conductorlab
Groton, Massachusetts

				Location ID		PRA1-S5		PRA1-S6	
				Field Sample ID	C022307-PRA1S4	C022307-PRA1S5		C022307-PRA1S6	
				Sample Start Depth	2	2		2	
				Sample End Depth	5	5		5	
				Sample Date	2/23/2007	2/23/2007		2/23/2007	
				Sample Purpose	REG	REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg	2.6	U	3	U	2.6	U
VPH	Ethylbenzene	100-41-4	mg/kg	0.26	U	2.6		0.26	U
VPH	m&p-Xylenes	NA	mg/kg	0.52	U	9.5		0.51	U
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg	0.052	U	0.059	U	0.051	U
VPH	Naphthalene	91-20-3	mg/kg	0.52	U	0.59	U	0.51	U
VPH	o-Xylene	95-47-6	mg/kg	0.26	U	0.3	U	0.26	U
VPH	Toluene	108-88-3	mg/kg	0.26	U	0.3	U	0.26	U
VPH	Total VPH	NA	mg/kg	2.6	U	3	U	2.6	U
Metals	Aluminum	7429-90-5	mg/kg	9,300		20,000		15,000	
Metals	Antimony	7440-36-0	mg/kg	1.2	J	2.2	J	11	J
Metals	Arsenic	7440-38-2	mg/kg	22		47		43	
Metals	Barium	7440-39-3	mg/kg	37		35		45	
Metals	Beryllium	7440-41-7	mg/kg	1.2	U	1.3	U	1.3	U
Metals	Cadmium	7440-43-9	mg/kg	0.26	J	0.41	J	0.37	J
Metals	Calcium	7440-70-2	mg/kg	1,600	B	2,000	B	1,700	B
Metals	Chromium	7440-47-3	mg/kg	85	J	64	J	130	J
Metals	Cobalt	7440-48-4	mg/kg	8.2		14		11	
Metals	Copper	7440-50-8	mg/kg	65	J	18	J	65	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	2.6	J	0.94	UJ	7.4	J
Metals	Iron	7439-89-6	mg/kg	14,000		25,000		20,000	
Metals	Lead	7439-92-1	mg/kg	18		9.4		14	
Metals	Magnesium	7439-95-4	mg/kg	4,600		8,500		6,900	
Metals	Manganese	7439-96-5	mg/kg	150		330		290	
Metals	Mercury	7439-97-6	mg/kg	0.097	U	0.033	J	0.031	J
Metals	Nickel	7440-02-0	mg/kg	29		46		35	
Metals	Potassium	7440-09-7	mg/kg	1,900	J	2,300	J	2,500	J
Metals	Selenium	7782-49-2	mg/kg	3.1	U	3.2	U	3.2	U
Metals	Silver	7440-22-4	mg/kg	1.8	J	3.2	U	1.8	J
Metals	Sodium	7440-23-5	mg/kg	36	U	140	U	110	U
Metals	Thallium	7440-28-0	mg/kg	6.1	U	6.4	U	6.4	U
Metals	Vanadium	7440-62-2	mg/kg	19		38		32	
Metals	Zinc	7440-66-6	mg/kg	32		40		34	
Cyanide	Cyanide, Reactive	NA	mg/kg						
Other	Sulfide, Reactive	NA	mg/kg						
Other	TOTAL ORGANIC CARBON	NA	mg/kg						
TIC	.alpha.-Pinene	NA	mg/kg						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg						
TIC	1-4-Methanonaphthalene	NA	mg/kg						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg						
TIC	1-Methyl-Pyrene	NA	mg/kg						
TIC	1S-.alpha.-Pinene	NA	mg/kg						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg						
TIC	2-Methylanthracene	613-12-7	mg/kg						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg						
TIC	Cyclic octaatomic sulfur	NA	mg/kg						
TIC	Cyclopentane, methyl-	NA	mg/kg						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg						
TIC	Hexanal	0066-25-1	mg/kg						
TIC	Pentane, 2-methyl-	NA	mg/kg						
TIC	Pentane, 3-methyl-	NA	mg/kg						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table 3
Summary of Compounds Detected in Groundwater
Recovery Wells (March 2008 - December 2009)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]			RW-1	RW-1	RW-1	RW-1	RW-1	RW-1	RW-1	RW-2	RW-3	RW-4	RW-4	RW-4	RW-4	RW-4	RW-4	RW-4	RW-5	RW-6
	GW-2 MCP (ug/L)	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Mar-08	Jun-08	Sep-08	Dec-08	Mar-09	Jun-09	Dec-09	Oct-08	Oct-08	Mar-08	Jun-08	Sep-08	Dec-08	Mar-09	Jun-09	Dec-09	Oct-08	Mar-08
Chlorinated Ethenes (ug/L)																					
Tetrachloroethene	50	30,000	100,000	0.26 J	2 U	5 U	2 U	2 U	2 U	1 U	1 U	1 U	0.42 J	0.88 J	1 U	0.7 J	0.61 J	1.3	0.68 J	1.1	1.2
Trichloroethene (TCE)	30	5,000	50,000	**500**	**1,100**	**1,000**	**3,500**	**1,400**	**2,000**	27	**120**	**85**	**51**	**140**	**36**	**94**	**96**	**150**	**99**	**97**	**88**
cis-1,2-Dichloroethene	100	50,000	100,000	**300**	**460**	**580**	**2,100**	**680**	**960**	4.5	**130**	19	3.9	6.6	3.7	3.8	13	15	16	3.2	1.9
trans-1,2-Dichloroethene	90	50,000	100,000	1.3	2.2	5 U	3.3	2.3	3	1 U	2.1	6.7	1 U	1 U	1 U	1 U	1 U	0.71 J	0.67 J	1 U	1 U
1,1-Dichloroethene	80	30,000	100,000	1.2	1.9 J	5 U	5.4 J	2 J	2.7	1 U	0.78 J	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	2	50,000	100,000	**16**	**6.5**	**12**	**73**	**23**	**32**	0.5 U	**12**	1.4	0.34 J	0.5	0.5 U	0.5	**2.8**	1.8	**3.8**	0.5 U	0.5 U
Chlorinated Ethanes (ug/L)																					
Chloroethane	NL	NL	NL	2 U	4 U	10 U	4 U	4 U	4 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1,1-Trichloroethane	4,000	20,000	100,000	1 U	2 U	5 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	900	50,000	100,000	1 U	2 U	5 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1,000	20,000	100,000	1 U	2 U	5 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Other VOCs (ug/L)																					
Ethylbenzene	20,000	5,000	100,000	1 U	2 U	5 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3.3	1 U	0.79 J	1 U	1 U
Methylene chloride	10,000	50,000	100,000	2 U	4 U	10 U	4 U	4 U	4 U	2 U	2 U	2 U	2 U	2 U	2 UJ	2 U	2 U	2 U	2 U	2 U	2 U
Toluene	50,000	40,000	100,000	1 U	2 U	5 U	5.8	1.5 J	2.1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.7	1 U	1 U	1 U	1 U
Xylenes (Total)	9,000	5,000	100,000	2 U	4 U	10 U	4 U	4 U	4 U	2 U	2 U	2 U	0.33 J	2 U	2 U	2 U	26	2 U	0.8 J	2 U	2 U
Total Metals (ug/L)	*GW-3*																				
Aluminum (Al)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900		9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300		3,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Hexavalent)	300		3,000	**1,100**	**1,100**	**1,500**	**1,600**	**1,200**	**1,200**	**2,800**	110	160	**610**	**310**	**310**	290	290	300	**580**	**1,000**	**1,600**
Copper (Cu)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dissolved Metals (ug/L)	*GW-3*																				
Antimony (Sb)	8,000		80,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900		9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium (Be)	200		2,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300		3,000	**1,200**	**1,200**	**1,500**	**1,600**	**1,100**	**1,300**	**2,690**	120	170	300	**330**	**330**	**320**	260	**350**	**565**	0.39 J	**720**
Copper (Cu)	NL		NL	50	140	87	68	56	100	640	1.6 U	2.3 J	12	11	12	9.6 J	10 U	9.8 J	26	2.9 J	5.0
Hexavalent Chromium, Dissolved	300		3,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)	NL		NL	14 U	16 U	16 U	16 U	100 U	16 U	250	16 U	16 U	14 U	16 U	16 U	16 U	100 U	16 U	34 U	28 J	14 U
Lead (Pb)	10		150	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL		NL	230	990	470	280	170	660	8,200	5,800	100	1,600	1,400	1,800	1,400	1,700	1,500	2,400	0.45 J	1.3 J

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-2 Standard (TCE/DCE/VC) or GW-3 Standard (Cr and Hexavalent Cr).

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
Recovery Wells (March 2008 - December 2009)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]			RW-6	RW-6	RW-6	RW-6	RW-6	RW-6	RW-6	RW-7	RW-8	RW-8	RW-8	RW-8	RW-8	RW-9	RW-9	RW-9	RW-9
	GW-2 MCP (ug/L)	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Jun-08	Sep-08	Dec-08	Mar-09	Jun-09	Oct-09	Dec-09	Oct-08	Jun-08	Sep-08	Dec-08	Jun-09	Oct-09	Dec-09	Mar-08	Jun-08	Sep-08	Dec-08
Chlorinated Ethenes (ug/L)																					
Tetrachloroethene	50	30,000	100,000	0.75 J	0.57 J	1 U	1 U	0.67 J	1.1	1 U	6.5	1.3	0.51 J	0.57 J	0.98 J	3.2	1 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE)	30	5,000	50,000	**53**	**33**	25	**38**	**42**	**79**	**31**	**410**	**66**	20 J	8.2	**48**	**340**	19	**38**	**69**	**75**	**70**
cis-1,2-Dichloroethene	100	50,000	100,000	0.89 J	1 U	1 U	2.9	1 U	3.5	3.2	3.3	1.8	0.85 J	1.8	0.93 J	2.9	1.4	60	81	91	**120**
trans-1,2-Dichloroethene	90	50,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.92 J	1.3	1.3
1,1-Dichloroethene	80	30,000	100,000	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	0.32 J	0.85 J	0.76 J	0.84 J
Vinyl chloride	2	50,000	100,000	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**15**	**21**	18 J	**26 J**
Chlorinated Ethanes (ug/L)																					
Chloroethane	NL	NL	NL	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.81 J	2 U	1.5 J
1,1,1-Trichloroethane	4,000	20,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	900	50,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1,000	20,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Other VOCs (ug/L)																					
Ethylbenzene	20,000	5,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.8	5.8	1 U	1 U
Methylene chloride	10,000	50,000	100,000	2 U	2 UJ	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Toluene	50,000	40,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes (Total)	9,000	5,000	100,000	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2.0	6.5	2 U	2 U
Total Metals (ug/L)	*GW-3*																				
Aluminum (Al)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900		9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300		3,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Hexavalent)	300		3,000	**770**	**830**	**710**	**570**	**610**	**1,900**	**2,500**	**590**	**310**	**400**	**470**	**340**	**650**	**620**	16	5 U	14	28
Copper (Cu)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dissolved Metals (ug/L)	*GW-3*																				
Antimony (Sb)	8,000		80,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900		9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium (Be)	200		2,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300		3,000	**810**	**910**	**710**	**510**	**700**	**2,000**	**2,300**	**610**	**330**	**390**	**480**	**380**	**670**	**629**	21	1.3 UJ	5	29
Copper (Cu)	NL		NL	6.5 J	7 J	5.3 J	10 U	5.2 J	39	130	3.6 J	2.5 J	5.7 J	7.8 J	4 J	10	35	5.4	3.6 J	4.7 J	3.3 J
Hexavalent Chromium, Dissolved	300		3,000	---	**830**	**710**	---		---	---	**590**	---	**400**	**470**	---	---	---	---	---	14	28
Iron (Fe)	NL		NL	16 U	16 U	16 U	100 U	16 U	40 J	34 U	16 U	16 U	16 U	16 U	16 U	34 U	34 U	14 U	16 U	16 U	16 U
Lead (Pb)	10		150	---	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL		NL	0.45 J	0.64 J	0.66 J	10 U	0.57 J	1.3 U	1.9 J	3.3 J	11	68	160	69	25	89	1,800	3,100	1,200	950

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-2 Standard (TCE/DCE/VC) or GW-3 Standard (Cr and Hexavalent Cr).

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
Recovery Wells (March 2008 - December 2009)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1] GW-2 MCP (ug/L)	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	RW-9 Mar-09	RW-9 Jun-09	RW-10 Mar-08	RW-10 Jun-08	RW-10 Sep-08	RW-10 Dec-08	RW-10 Mar-09	RW-10 Jun-09	RW-10 Dec-09	RW-11 Mar-08	RW-11 Jun-08	RW-11 DUP Jun-08	RW-11 Sep-08	RW-11 Dec-08	RW-11 Mar-09	RW-11 DUP Mar-09	RW-11 Jun-09	RW-11 Dec-09
Chlorinated Ethenes (ug/L)																					
Tetrachloroethene	50	30,000	100,000	1 U	1 U	0.34 J	2 U	10 U	2 U	1 U	1 U	1 U	0.23 J	0.68 J	0.65 J	2 U	1 U	1 U	1 U	0.52 J	1 U
Trichloroethene (TCE)	30	5,000	50,000	**56**	**130**	**520**	**660**	**1,200**	**430**	**940**	**1,800**	**160**	**160**	**1,100**	**1,400**	**520**	**470**	**170**	**190**	**1,600**	**31**
cis-1,2-Dichloroethene	100	50,000	100,000	68	**130**	**390**	**360**	**820**	**320**	**710**	**1,300**	**130**	37	**320**	**130**	71	69	28	28	**330**	6.4
trans-1,2-Dichloroethene	90	50,000	100,000	0.95 J	1.4	2.6	3.3	9.5 J	5.1	6.7	11	3.4	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	80	30,000	100,000	1 U	2.4	1.6	1.6 J	10 U	2.6	2.9	5.6	0.75 J	1 U	0.96 J	0.79 J	2 U	1 UJ	1 U	1 U	1.1	1 U
Vinyl chloride	2	50,000	100,000	**14**	**20**	**17**	**5.0**	**15**	4.6 J	**24**	**44**	**7.2**	0.36 J	**2.5**	1.6	1 U	0.93	0.67	0.76	**8.5**	0.5 U
Chlorinated Ethanes (ug/L)																					
Chloroethane	NL	NL	NL	0.83 J	2 U	2 U	4 U	20 U	4 U	2 U	2 U	2 U	2 U	2 U	2 U	4 U	2 U	2 U	2 U	2 U	2 U
1,1,1-Trichloroethane	4,000	20,000	100,000	1 U	1 U	1 U	2 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	900	50,000	100,000	1 U	1 U	1 U	2 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1,000	20,000	100,000	1 U	1 U	1 U	2 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Other VOCs (ug/L)																					
Ethylbenzene	20,000	5,000	100,000	1 U	1 U	1 U	2 U	10 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	10,000	50,000	100,000	2 U	2 U	2 U	4 U	20 U	4 U	2 U	2 U	2 U	2 U	2 U	2 U	4 U	2 U	2 U	2 U	2 U	2 U
Toluene	50,000	40,000	100,000	1 U	1 U	1 U	2 U	10 U	2 U	1.2	2.3	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1.3	1 U
Xylenes (Total)	9,000	5,000	100,000	2 U	2 U	2 U	4 U	20 U	4 U	2 U	2 U	2 U	2 U	2 U	2 U	4 U	2 U	2 U	2 U	2 U	2 U
Total Metals (ug/L)	*GW-3*																				
Aluminum (Al)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900		9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300		3,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Hexavalent)	300		3,000	25	27	**500**	**610**	**710**	**830**	**730**	**570**	**1,100**	**990**	**600**	**600**	**1,700**	**1,700**	**1,300**	**1,300**	**1,200**	**4,300**
Copper (Cu)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dissolved Metals (ug/L)	*GW-3*																				
Antimony (Sb)	8,000		80,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900		9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium (Be)	200		2,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300		3,000	25	42	**590**	**610**	**680**	**760**	**580**	**580**	**1,110**	**1,300**	**1,600**	**1,600**	**1,700**	**1,700**	**1,200**	**1,200**	**1,300**	**4,410**
Copper (Cu)	NL		NL	10 U	2.1 J	1.7 J	1.6 U	1.6 U	4.5 J	10 U	1.6 U	81	25	30	30	35	28	23	22	31	3,200
Hexavalent Chromium, Dissolved	300		3,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)	NL		NL	100 U	16 U	14 U	16 U	16 U	16 U	100 U	16 U	160	14 U	16 U	16 U	16 U	16 U	100 U	100 U	16 U	570
Lead (Pb)	10		150	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL		NL	1,200	810	35	11	7.6 J	58	9.4 J	9.9 J	53	21	11	11	19	20	13	13	9.3 J	58,000

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-2 Standard (TCE/DCE/VC) or GW-3 Standard (Cr and Hexavalent Cr).

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
Recovery Wells (March 2008 - December 2009)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1] GW-2 MCP (ug/L)	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	RW-12 Mar-08	RW-12 Jun-08	RW-12 Sep-08	RW-12 Dec-08	RW-12 Mar-09	RW-12 Jun-09	RW-12 Dec-09	SRW-1 Mar-08	SRW-1 DUP Mar-08	SRW-1 Jun-08	SRW-1 Sep-08	SRW-1 Dec-08	SRW-1 Mar-09	SRW-1 Jun-09
Chlorinated Ethenes (ug/L)																	
Tetrachloroethene	50	30,000	100,000	0.25 J	1 U	1 U	2 U	2 U	1 U	1 U	1 U	1 U	4.7	1 U	1 U	1 U	1 U
Trichloroethene (TCE)	30	5,000	50,000	**220**	**370**	**200**	**220**	**360**	**840**	**180**	13	12	**26,000**	**120**	**140**	18	**1,100**
cis-1,2-Dichloroethene	100	50,000	100,000	**130**	**210**	**150**	**150**	**160**	**600**	**130**	1 U	1 U	**1,500**	2	7.1	1 U	**110**
trans-1,2-Dichloroethene	90	50,000	100,000	0.66 J	1.5	1.4	1.9 J	2 U	3.6	6.3	1 U	1 U	2.4	1 U	1 U	1 U	1 U
1,1-Dichloroethene	80	30,000	100,000	0.57 J	0.9 J	1 U	2 U	2 U	2.7	1 U	1 U	1 U	5.2	1 U	1 U	1 U	1 U
Vinyl chloride	2	50,000	100,000	1.6	2.0	1.3	2.3 J	**3.1**	**26**	**7.2**	0.5 U	0.5 U	**140**	0.5 U	0.5 U	0.5 U	**11**
Chlorinated Ethanes (ug/L)																	
Chloroethane	NL	NL	NL	2 U	2 U	2 U	4 U	4 U	2 U	0.76 J	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1,1-Trichloroethane	4,000	20,000	100,000	1 U	1 U	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	900	50,000	100,000	1 U	1 U	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1,000	20,000	100,000	1 U	1 U	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Other VOCs (ug/L)																	
Ethylbenzene	20,000	5,000	100,000	1 U	1 U	1 U	2 U	2 U	1 U	1 U	1 U	1 U	2.7	1 U	1 U	1 U	1 U
Methylene chloride	10,000	50,000	100,000	2 U	2 U	2 U	4 U	4 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Toluene	50,000	40,000	100,000	1 U	1 U	1 U	2 U	2 U	1.2	1 U	1 U	1 U	110	1 U	1 U	1 U	3.1
Xylenes (Total)	9,000	5,000	100,000	2 U	2 U	2 U	4 U	4 U	2 U	2 U	2 U	2 U	6.1	2 U	2 U	2 U	2 U
Total Metals (ug/L)	*GW-3*																
Aluminum (Al)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900		9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300		3,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Hexavalent)	300		3,000	**910**	**770**	**960**	**1,200**	**1,300**	**940**	**9,200**	**630**	**940**	240	**1,400**	**1,400**	**880**	**810**
Copper (Cu)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dissolved Metals (ug/L)	*GW-3*																
Antimony (Sb)	8,000		80,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900		9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium (Be)	200		2,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300		3,000	**1,000**	**760**	**990**	**1,100**	**1,100**	**980**	**7,450**	**720**	**710**	270	**1,400**	**1,400**	**840**	**890**
Copper (Cu)	NL		NL	16	18	12	14	10	20	3000	5.1	4.7	4 J	6.9 J	5.8 J	10 U	5.4 J
Hexavalent Chromium, Dissolved	300		3,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)	NL		NL	14 U	16 U	16 U	16 U	100 U	16 U	190	22 J	14 U	16 U	16 U	16 U	100 U	16 U
Lead (Pb)	10		150	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL		NL	430	120	130	230	120	380	4,500	3.7 J	3.1 J	37	2 J	1.8 J	3.8 J	1.3 J

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-2 Standard (TCE/DCE/VC) or GW-3 Standard (Cr and Hexavalent Cr).

10 - Indicates value exceeds current UCL.

Prepared by / Date: KJC 03/04/10

Checked by / Date: DLC 03/05/10

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (March 2008 - October 2009)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]			BIW-1	BIW-3	BIW-6	BIW-7	BIW-11	BIW-14	BIW-19	BIW-21	BIW-22	BIW-24	BIW-24 DUP	BIW-26	BIW-27	BIW-29	BIW-32	BIW-34	BIW-36	BIW-39	BIW-40	BMW-1	BMW-2
	GW-2 MCP (ug/L)	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Sep-08	Sep-08	Sep-08	Sep-08	Sep-08	Sep-08	Sep-08	Sep-08	Oct-08	Oct-08	Oct-08	Sep-08	Sep-08	Sep-08	Oct-08	Oct-08	Sep-08	Sep-08	Sep-08	Sep-08	Sep-08
Chlorinated Ethenes (ug/L)																								
Tetrachloroethene	50	30,000	100,000	100 U	5 U	250 U	500 U	100 U	200 U	2.6	1 U	1 U	500 U	500 U	2 U	10 U	1 U	500 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE)	30	5,000	50,000	**81,000**	**1,600**	**94,000**	**150,000**	**24,000**	**53,000**	**75**	1 U	1.2 U	**120,000**	**94,000**	**280**	**850**	1 U	**230,000**	2.2	1 U	1.5	0.98 J	6.1	**74**
cis-1,2-Dichloroethene	100	50,000	100,000	**12,000**	**190**	**1,100**	**1,100**	**360**	**830**	1 U	1 U	1 U	**7,000**	**6,800**	12	7.6 J	1 U	500 U	1 U	1 U	1 U	1 U	1 U	**120**
trans-1,2-Dichloroethene	90	50,000	100,000	100 U	5 U	250 U	500 U	100 U	200 U	1 U	1 U	1 U	500 U	500 U	2 U	10 U	1 U	500 U	1 U	1 U	1 U	1 U	1 U	0.82 J
1,1-Dichloroethene	80	30,000	100,000	100 U	5 U	250 U	500 U	100 U	200 U	1 U	1 U	1 U	500 U	500 U	2 U	10 U	1 U	500 U	1 U	1 U	1 U	1 U	1 U	1.7
Vinyl chloride	2	50,000	100,000	**1,000 J**	2.5 U	120 U	250 U	50 U	100 U	0.5 U	0.5 U	0.5 U	**230 J**	250 U	1 U	5 U	0.5 U	250 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**32**
Chlorinated Ethanes (ug/L)																								
Chloroethane	NL	NL	NL	200 U	10 U	500 U	1,000 U	200 U	400 U	2 U	2 U	2 U	1000 U	1000 U	4 U	20 U	2 U	1,000 U	2 U	2 U	2 U	2 U	2 U	0.62 J
1,1,1-Trichloroethane	4,000	20,000	100,000	100 U	5 U	250 U	500 U	100 U	200 U	1 U	1 U	1 U	500 U	500 U	2 U	10 U	1 U	500 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	900	50,000	100,000	100 U	5 U	250 U	500 U	100 U	200 U	1 U	1 U	1 U	500 U	500 U	2 U	10 U	1 U	500 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1,000	20,000	100,000	100 U	5 U	250 U	500 U	100 U	200 U	1 U	1 U	1 U	500 U	500 U	2 U	10 U	1 U	500 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5	20,000	100,000	100 U	5 U	250 U	500 U	100 U	200 U	1 U	1 U	1 U	500 U	500 U	2 U	10 U	1 U	500 U	1 U	1 U	1 U	1 U	1 U	1 U
Other VOCs (ug/L)																								
Acetone	50,000	50,000	100,000	5,000 U	250 U	12,000 U	25,000 U	5,000 U	10,000 U	50 U	50 U	50 U	25,000 U	25,000 U	100 U	500 U	50 U	25,000 U	50 U	50 U	42 J	50 U	50 U	50 U
Benzene	2,000	10,000	100,000	100 U	5 U	250 U	500 U	100 U	200 U	1 U	1 U	1 U	500 U	500 U	2 U	10 U	1 U	500 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	NL	NL	NL	1,000 U	50 U	2,500 U	5,000 U	1,000 U	2,000 U	10 U	1.8 J	10 U	5,000 U	5,000 U	20 U	100 U	10 U	5,000 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	200	1,000	10,000	100 U	5 U	250 U	500 U	100 U	200 U	1 U	1 U	1 U	500 U	500 U	2 U	10 U	1 U	500 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	20,000	5,000	100,000	100 U	5 U	250 U	500 U	100 U	200 U	1 U	1 U	1 U	500 U	500 U	2 U	10 U	1 U	500 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	10,000	50,000	100,000	200 U	10 U	500 U	1,000 U	200 U	400 U	2 U	2 U	2 U	1,000 U	1,000 U	4 U	20 U	2 U	1000 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl-tert-butyl-ether (MTBE)	50,000	50,000	100,000	100 U	5 U	250 U	500 U	100 U	200 U	1 U	1 U	1 U	500 U	500 U	2 U	10 U	1 U	500 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	50,000	40,000	100,000	170	5 U	150 J	2,800	100 U	800	1 U	1 U	1 U	400 J	370 J	2 U	10 U	1 U	2,900	1 U	1 U	2.0	1 U	1 U	1 U
Xylenes (Total)	9,000	5,000	100,000	200 U	10 U	500 U	1,000 U	200 U	400 U	2 U	2 U	2 U	1,000 U	1,000 U	4 U	20 U	2 U	1,000 U	2 U	2 U	2 U	2 U	2 U	2 U
Total Metals (ug/L)	*GW-3*																							
Aluminum (Al)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900		9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300		3,000	**440**	**3,900**	1.9 J	0.82 UJ	**3,000**	120	0.64 U	0.56 J	0.63 U	16	20	6.4	3.7 J	12	53	0.66 U	0.75 U	**540**	**660**	**410**	160
Chromium (Hexavalent)	300		3,000	**470**	**4,300**	5 U	5 U	**2,300**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**520**	**510**	**440**	170
Copper (Cu)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)	NL		NL	---	---	---	360	---	---	---	---	---	---	---	---	980	---	32,000	---	---	---	---	---	---
Lead (Pb)	10		150	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-2 Standard (TCE/DCE/VC) or GW-3 Standard (Cr and Hexavalent Cr).

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (March 2008 - October 2009)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]			BMW-2 DUP	BMW-3	BMW-4	BMW-5	BMW-6	CIW-1B	CIW-1B	CIW-1B	CIW-1B	CLW-5	CLW-5A	CLW-5A	CLW-5A	CLW-5B	CLW-5B	CLW-5B	CLW-5B	CLW-7	CLW-7B	CLW-7B	CLW-8	CLW-8
	GW-2 MCP (ug/L)	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Sep-08	Oct-08	Sep-08	Sep-08	Oct-08	Mar-08	Sep-08	Mar-09	Sep-09	Mar-08	Sep-08	Mar-09	Sep-09	Mar-08	Sep-08	Mar-09	Oct-09	Mar-09	Sep-08	Mar-09	Mar-08	Sep-08
Chlorinated Ethenes (ug/L)																									
Tetrachloroethene	50	30,000	100,000	1 U	2 U	5 U	**52**	10 U	6.7	3.8	7.1	9.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE)	30	5,000	50,000	**72**	**280**	**440**	**64,000**	**1,300**	**43**	22	**87**	**150**	1.4	3.8	**270**	19	22	10	**53**	**47**	0.91 J	6.7	12	2.0	4.5
cis-1,2-Dichloroethene	100	50,000	100,000	**120**	100	**230**	**2,100**	10 U	61	32	23	35	1 U	3.5	29	42	23	20	**110**	78	1.5	4.2	5.6	1 U	1 U
trans-1,2-Dichloroethene	90	50,000	100,000	0.79 J	2 U	5 U	50 U	10 U	0.34 J	1 U	1 U	0.82 J	1 U	1 U	1 U	1 U	0.86 J	0.71 J	2.5	1.8	1 U	1 U	1.1	1 U	1 U
1,1-Dichloroethene	80	30,000	100,000	1.7	2 U	5 U	50 U	10 U	0.31 J	1 U	1 U	0.73 J	1 U	1 U	1 U	1 U	0.36 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	2	50,000	100,000	**34**	1 U	**3.6**	**140**	5 U	**4.6**	**3.1 J**	**14**	**15**	0.5 U	1.6	**3.4**	**12**	**10**	**3.5**	**13**	**17**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorinated Ethanes (ug/L)																									
Chloroethane	NL	NL	NL	0.71 J	4 U	10 U	100 U	20 U	2 U	2 U	1.1 J	1.2 J	2 U	2 U	2 U	2 U	2 U	2 U	0.8 J	1 J	2 U	2 U	2 U	2 U	2 U
1,1,1-Trichloroethane	4,000	20,000	100,000	1 U	2 U	5 U	50 U	10 U	1.1	1 U	1 U	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	900	50,000	100,000	1 U	2 U	5 U	50 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1,000	20,000	100,000	1 U	2 U	5 U	50 U	10 U	1.2	1 U	0.75 J	0.75 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5	20,000	100,000	1 U	2 U	5 U	50 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Other VOCs (ug/L)																									
Acetone	50,000	50,000	100,000	50 U	100 U	250 U	2500 U	500 UJ	86 J	50 U	50 UJ	50 UJ	50 UJ	50 U	50 UJ	50 UJ	50 U	50 U	50 UJ	50 U	50 UJ	50 U	50 UJ	50 U	50 U
Benzene	2,000	10,000	100,000	1 U	2 U	5 U	50 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	NL	NL	NL	10 U	20 U	50 U	500 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	200	1,000	10,000	1 U	2 U	5 U	50 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.1	1.6	1.9	1 U	1 U
Ethylbenzene	20,000	5,000	100,000	1 U	2 U	5 U	50 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	10,000	50,000	100,000	2 U	4 U	10 U	100 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl-tert-butyl-ether (MTBE)	50,000	50,000	100,000	1 U	2 U	5 U	50 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	50,000	40,000	100,000	1 U	2 U	5 U	38 J	53	1 U	0.57 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes (Total)	9,000	5,000	100,000	2 U	4 U	10 U	100 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Total Metals (ug/L)	*GW-3*																								
Aluminum (Al)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900		9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300		3,000	160	**2,200**	290 J	3.3 J	0.17 U	**7,200**	130	**1,400**	**340**	31	43	180	**1,300**	9.2	4.8 J	11	3.3 J	8.8	1.7 J	2.7 J	170	210
Chromium (Hexavalent)	300		3,000	170	**1,900**	**340**	5 U	5.6	5 U	5 UJ	5 U	5 U	94 J	36 J	290	5 U	21	5 U	5.4	5 U	5 U	13	5 U	160	200
Copper (Cu)	NL		NL	---	---	---	---	---	---	---	---	---	14	---	---	---	120	---	---	---	---	---	---	210	---
Iron (Fe)	NL		NL	---	---	1,900	---	30 U	---	4,500	---	---	---	---	---	---	---	---	---	---	---	68 J	---	---	---
Lead (Pb)	10		150	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-2 Standard (TCE/DCE/VC) or GW-3 Standard (Cr and Hexavalent Cr).

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (March 2008 - October 2009)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]			CLW-8	CLW-8	CLW-9A	CLW-9B	CLW-11A	CLW-11B	CLW-16	CLW-16B	CLW-16B DUP	CLW-16B	CLW-16B	DMW-A	DMW-A	DMW-A	DMW-B	DMW-B	DMW-B	DMW-B	OIP-11D	OMW-2D	OMW-2S
	GW-2 MCP (ug/L)	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Mar-09	Sep-09	Sep-08	Sep-08	Sep-08	Sep-08	Sep-08	Mar-08	Mar-08	Sep-08	Mar-09	Mar-08	Sep-08	Mar-09	Mar-08	Sep-08	Mar-09	Sep-09	Oct-08	Oct-08	Oct-08
Chlorinated Ethenes (ug/L)																								
Tetrachloroethene	50	30,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE)	30	5,000	50,000	2.9	8.4	1 U	1 U	1 U	1 U	27	6.7	6.3	**38**	7.2 U	1.3	4.2	2.1	14	13	19	5.8	**64**	1 U	0.8 U
cis-1,2-Dichloroethene	100	50,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.87 J	1 U	1 U	1 U	2.1	1.3	2.0	1 U	1.2	4.9	0.91 J	1 U	1 U	1 U
trans-1,2-Dichloroethene	90	50,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	0.94 J	1.4	2.6	1 U	1 U	1 U	1 U
1,1-Dichloroethene	80	30,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	2	50,000	100,000	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorinated Ethanes (ug/L)																								
Chloroethane	NL	NL	NL	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1,1-Trichloroethane	4,000	20,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	900	50,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1,000	20,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5	20,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Other VOCs (ug/L)																								
Acetone	50,000	50,000	100,000	50 UJ	50 UJ	50 U	50 U	50 U	50 U	50 U	19 J	50 UJ	35 J	50 U	50 U	50 U	50 UJ	50 U	50 U	50 UJ	50 UJ	50 U	50 U	50 U
Benzene	2,000	10,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	NL	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	200	1,000	10,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.69 J	1.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	20,000	5,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	10,000	50,000	100,000	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl-tert-butyl-ether (MTBE)	50,000	50,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	50,000	40,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes (Total)	9,000	5,000	100,000	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Total Metals (ug/L)	*GW-3*																							
Aluminum (Al)	NL		NL	---	---	---	---	---	---	---	---	---	---		---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900		9,000	---	---	---	---	---	---	---	---	---	---		---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300		3,000	220	170	3.3 UJ	0.38 UJ	0.65 UJ	0.79 UJ	**2,100**	**990**	**970**	**1,100**	**960**	3.6 J	5.3	3 J	23	22	7.5	9.9	**1,100**	**2,700**	**1,300**
Chromium (Hexavalent)	300		3,000	210 J	150	5 U	5 U	5 U	5 U	**1,700**	**1,300 J**	**830 J**	**1,200**	**980**	5 U	5 U	5 U	19	22	5 U	7.1	**1,100**	**3,000**	**980**
Copper (Cu)	NL		NL	---	---	---	---	---	---	---	25	31	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)	NL		NL	---	---	---	---	---	---	---	---	---	34 J	---	---	---	---	---	---	---	---	---	---	---
Lead (Pb)	10		150	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-2 Standard (TCE/DCE/VC) or GW-3 Standard (Cr and Hexavalent Cr).

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (March 2008 - October 2009)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]			OMW-3D	OMW-3S	OMW-4D	OMW-4D DUP	OMW-4S	OMW-6S	OSW-1	OSW-1	OSW-1 DUP	OSW-1A	OSW-1A	OSW-1B	OSW-1B DUP	OSW-1B	OSW-1B	OSW-1B	OSW-2B	OSW-2B	OSW-2B	OSW-2B	OSW-3
	GW-2 MCP (ug/L)	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Oct-08	Oct-08	Sep-08	Sep-08	Sep-08	Oct-08	Mar-08	Sep-08	Sep-08	Mar-09	Oct-09	Mar-08	Mar-08	Sep-08	Mar-09	Oct-09	Mar-08	Sep-08	Mar-09	Oct-09	Mar-08
Chlorinated Ethenes (ug/L)																								
Tetrachloroethene	50	30,000	100,000	1 U	1 U	1 U	1 U	0.65 J	1 U	1 U	1 U	1 U	1 U	1 UJ	500 U	200 U	50 U	100 U	100 U	2 U	9.8 J	2 U	7.8	1 U
Trichloroethene (TCE)	30	5,000	50,000	**400**	**57**	1 U	1 U	1.8	23	0.53 J	14 J	9.6 J	1 U	0.64 J	**81,000**	**60,000**	**26,000**	**62,000**	**33,000**	**1,000**	**21,000**	**340**	**31,000**	20
cis-1,2-Dichloroethene	100	50,000	100,000	42	5.1	1 U	1 U	0.85 J	0.88 J	1 U	1 U	1 U	1 U	1 UJ	**1,400**	**1,300**	**410**	**670**	**1,000**	5	**240**	4.7	**360**	0.81 J
trans-1,2-Dichloroethene	90	50,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	500 U	200 U	50 U	100 U	100 U	2 U	10 U	2 U	3.2 J	1 U
1,1-Dichloroethene	80	30,000	100,000	0.95 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	500 U	200 U	34 J	100 U	100 U	2 U	10 U	2 U	5 U	1 U
Vinyl chloride	2	50,000	100,000	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	250 U	**220**	**56**	50 U	**85**	1 U	**7.9**	1 U	**26**	0.5 U
Chlorinated Ethanes (ug/L)																								
Chloroethane	NL	NL	NL	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	3.2 J	1000 U	400 U	100 U	200 U	200 U	4 U	20 U	4 U	10 U	2 U
1,1,1-Trichloroethane	4,000	20,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	500 U	200 U	50 U	100 U	100 U	2 U	10 U	2 U	5 U	1 U
1,1,2-Trichloroethane	900	50,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	500 U	200 U	50 U	100 U	100 U	2 U	10 U	2 U	5 U	1 U
1,1-Dichloroethane	1,000	20,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	500 U	200 U	50 U	100 U	100 U	2 U	10 U	2 U	5 U	1 U
1,2-Dichloroethane	5	20,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.8 J	500 U	200 U	50 U	100 U	100 U	2 U	10 U	2 U	5 U	1 U
Other VOCs (ug/L)																								
Acetone	50,000	50,000	100,000	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	170 J	25,000 UJ	10,000 U	2,500 U	5000 U	5000 U	100 UJ	500 U	100 U	250 U	50 U
Benzene	2,000	10,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	500 U	200 U	50 U	100 U	100 U	2 U	10 U	2 U	5 U	1 U
Carbon disulfide	NL	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.1 J	5,000 U	2,000 U	500 U	1000 U	1000 U	20 U	100 U	20 U	50 U	10 U
Chlorobenzene	200	1,000	10,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	500 U	200 U	50 U	100 U	100 U	2 U	10 U	2 U	5 U	1 U
Ethylbenzene	20,000	5,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	500 U	200 U	50 U	100 U	100 U	2 U	10 U	2 U	5 U	1 U
Methylene chloride	10,000	50,000	100,000	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	7.3 J	1,000 U	400 U	100 U	200 U	200 U	4 U	34	4 U	10 U	2 U
Methyl-tert-butyl-ether (MTBE)	50,000	50,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	500 U	200 U	50 U	100 U	100 U	2 U	10 U	2 U	5 U	1 U
Toluene	50,000	40,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1,100	760	37 J	460	63 J	2 U	7 J	2 U	29	1 U
Xylenes (Total)	9,000	5,000	100,000	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 UJ	1,000 U	400 U	100 U	200 U	200 U	4 U	20 U	4 U	10 U	2 U
Total Metals (ug/L)	*GW-3*																							
Aluminum (Al)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900		9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300		3,000	**1,300**	94	1.2 J	1.1 J	7.7	15	**1,300**	110	120	100	**7,100**	1.3 J	1.4 J	1.3 U	13	20	**830**	**3,000**	**970**	**3,100**	**830**
Chromium (Hexavalent)	300		3,000	**1,400**	36	5 U	5 U	5 U	41	76 J	95 J	130 J	110	**7,600**	5 UJ	5 UJ	25 J	5.8	5 U	**1,400 J**	30	**990**	**3,500**	**830**
Copper (Cu)	NL		NL	---	---	---	---	---	---	16	---	---	---	---	---	---	---	---	---	6.4	---	---	---	79
Iron (Fe)	NL		NL	---	10,000	---	---	4,600	---	---	110	130	---	---	---	---	---	---	---	---	80 J	---	---	---
Lead (Pb)	10		150	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-2 Standard (TCE/DCE/VC) or GW-3 Standard (Cr and Hexavalent Cr).

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (March 2008 - October 2009)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1] GW-2 MCP (ug/L)	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	OSW-3 Sep-08	OSW-3 Mar-09	OSW-3 Oct-09	OSW-3B Mar-08	OSW-3B Sep-08	OSW-3B Mar-09	OSW-3B Oct-09	OSW-4B Sep-08	OSW-4I Mar-08	OSW-4I Sep-08	OSW-4I Mar-09	OSW-4I DUP Mar-09	OSW-4I Sep-09	OSW-6B Sep-08	OSW-7 Mar-08	OSW-7 Sep-08	OSW-7 Mar-09	OSW-7A Sep-09	OSW-7A DUP Sep-09	OSW-7B Sep-08	PTA-MW-2 Sep-08	PTA-MW-5BR Sep-08
Chlorinated Ethenes (ug/L)																									
Tetrachloroethene	50	30,000	100,000	1 U	1 U	1 U	9.7 J	100 U	50 U	10 U	1 U	0.34 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE)	30	5,000	50,000	**150**	**42**	1 U	**31,000**	**38,000**	**23,000**	**3,200**	**92**	**140**	**110**	**250**	**260**	**78**	24	17	8.1	**68**	**31**	**34**	10	1.5	**78**
cis-1,2-Dichloroethene	100	50,000	100,000	7.4	1.9	1 U	**7,500**	**6,800**	**5,200**	**500**	64	84	71	**110**	**140**	74	24	4.0	2.3	13	7.3	8	2.7	5.6	16
trans-1,2-Dichloroethene	90	50,000	100,000	1 U	1 U	1 U	20 U	100 U	50 U	65	1 U	1 U	1 U	1 U	1 U	1.1	23	1 U	1 U	1 U	0.92 J	1.1	1 U	1 U	0.72 J
1,1-Dichloroethene	80	30,000	100,000	1 U	1 U	1 U	17 J	100 U	50 U	10 U	1.5	0.94 J	0.82 J	0.91 J	1.7	1.2	1.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	2	50,000	100,000	0.5 U	0.5 U	0.5 U	**75**	**120**	25 U	5 U	**18**	**2.5**	**4.2**	**7.4**	**10**	**16**	**120**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**14 J**	0.5 U
Chlorinated Ethanes (ug/L)																									
Chloroethane	NL	NL	NL	2 U	2 U	2.4	40 U	200 U	100 U	20 U	2 U	2 U	2 U	2 U	2 U	2	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1,1-Trichloroethane	4,000	20,000	100,000	1 U	1 U	1 U	20 U	100 U	50 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	900	50,000	100,000	1 U	1 U	1 U	20 U	100 U	50 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1,000	20,000	100,000	1 U	1 U	1 U	20 U	100 U	50 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5	20,000	100,000	1 U	1 U	1 U	20 U	100 U	50 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Other VOCs (ug/L)																									
Acetone	50,000	50,000	100,000	50 U	50 UJ	100	1,000 U	5,000 U	2,500 UJ	500 UJ	50 U	50 U	50 U	50 UJ	50 UJ	50 UJ	50 U	50 U	50 U	50 UJ	24 J	50 U	50 U	50 U	50 U
Benzene	2,000	10,000	100,000	1 U	1 U	1 U	20 U	100 U	50 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.3	1 U
Carbon disulfide	NL	NL	NL	10 U	10 U	0.66 J	200 U	1000 U	500 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	0.63 J	10 U	10 U	10 U	10 U
Chlorobenzene	200	1,000	10,000	1 U	1 U	1 U	20 U	100 U	50 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	20,000	5,000	100,000	1 U	1 U	1 U	20 U	100 U	50 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 U	610	1 U
Methylene chloride	10,000	50,000	100,000	2 U	2 U	2.5	40 U	200 U	100 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl-tert-butyl-ether (MTBE)	50,000	50,000	100,000	1 U	1 U	1 U	20 U	100 U	50 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	50,000	40,000	100,000	1 U	1 U	1 U	20 U	100 U	50 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 U	1.0	1 U
Xylenes (Total)	9,000	5,000	100,000	2 U	2 U	2 U	40 U	200 U	100 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 UJ	2 UJ	2 U	1.3	2 U
Total Metals (ug/L)	*GW-3*																								
Aluminum (Al)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900		9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300		3,000	**1,800**	**940**	**14,000**	**720**	**830**	**980**	**4,900**	7.5	6.1	5.5	2.9 J	2.2 J	2.6 J	1.7 U	**330**	**590**	**400**	**3,600**	**4,000**	**680**	5.2 U	77
Chromium (Hexavalent)	300		3,000	17	**1,200**	**15,000**	**770 J**	21	**2,700**	**3,800**	5.5 J	5 UJ	5 UJ	5 U	5 U	5 U	5 U	67 J	**540**	**480**	**2,200**	**2,100**	**680 J**	5 UJ	64 J
Copper (Cu)	NL		NL	---	---	---	---	---	---	---	---	2.4 J	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	46 U	---	---	---	27 J	---	---
Lead (Pb)	10		150	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-2 Standard (TCE/DCE/VC) or GW-3 Standard (Cr and Hexavalent Cr).

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (March 2008 - October 2009)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1] GW-2 MCP (ug/L)	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	PTB-MW-1BR Sep-08	PTC-IW-1 Sep-08	PTC-IW-1 Mar-09	PTC-MW-1 Sep-08	PTC-MW-2R Sep-08	PTC-MW-3 Sep-08	PTC-MW-6 Oct-08	PTC-MW-6 DUP Oct-08	PTC-MW-7 Sep-08	PP-2 Mar-08	PP-2 Sep-08	PP-2 Mar-09	PP-2 Sep-09	PP-3 Mar-08	PP-3 Sep-08	PP-3 Mar-09	PP-3 Oct-09	PP-4A Mar-08	PP-4A Sep-08	PP-4A Mar-09	PP-4A Oct-09	PP-4B Mar-08
Chlorinated Ethenes (ug/L)																									
Tetrachloroethene	50	30,000	100,000	1 U	16	5 U	1 U	1 U	1 U	1 U	1 U	1 U	0.69 J	1 U	1 U	1 U	1 U	1.7	1 U	1.3	1 U	1 U	1 U	1 U	2.5
Trichloroethene (TCE)	30	5,000	50,000	1.6	**670**	5 U	1 U	1.6	2.6	2.4 U	2.3 U	2.2	20	16	23	23	**41**	**230**	11	**220**	**59**	**79**	21	**41**	**150**
cis-1,2-Dichloroethene	100	50,000	100,000	19	**2,600**	**170**	6.4	2.5	1 U	1 U	1 U	1.1	3.0	12	6.3	8.3	1.2	51	0.74 J	63	6.0	10	1.5	5.1	11
trans-1,2-Dichloroethene	90	50,000	100,000	1 U	5 U	5 U	0.92 J	1 U	1 U	1 U	1 U	1 U	1 U	0.71 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	80	30,000	100,000	1 U	17	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	2	50,000	100,000	**23**	**2,500 J**	**1,100**	**12 J**	**2.1**	0.5 U	0.5 U	0.5 U	0.5 U	**14**	**80**	**19**	**27**	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorinated Ethanes (ug/L)																									
Chloroethane	NL	NL	NL	2 U	10 U	10 U	4.6	0.75 J	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.88 J	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1,1-Trichloroethane	4,000	20,000	100,000	1 U	55	310	1 U	23	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	900	50,000	100,000	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1,000	20,000	100,000	1 U	19	110	0.92 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5	20,000	100,000	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Other VOCs (ug/L)																									
Acetone	50,000	50,000	100,000	50 U	18,000	28,000 J	2,500	50 U	50 U	50 U	50 U	50 U	50 UJ	50 U	50 UJ	50 UJ	50 U	50 U	50 UJ	50 U	50 U	50 U	50 UJ	50 U	50 UJ
Benzene	2,000	10,000	100,000	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	NL	NL	NL	10 U	50 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	200	1,000	10,000	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	20,000	5,000	100,000	1 U	5 U	8.2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	10,000	50,000	100,000	2 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl-tert-butyl-ether (MTBE)	50,000	50,000	100,000	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	50,000	40,000	100,000	1 U	9.9	57	4.1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes (Total)	9,000	5,000	100,000	2 U	10 U	33	2.6 J	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Total Metals (ug/L)	*GW-3*																								
Aluminum (Al)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900		9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300		3,000	2.8 J	13	5.5	10	97	5.4 U	30	29	6.3 U	0.68 U	92	**370**	**430**	**680**	**2,100**	**460**	**1,700**	**380**	270	**310**	220	3.3 J
Chromium (Hexavalent)	300		3,000	5 U	5 UJ	10 U	5 UJ	5 U	5 UJ	26	27	5 UJ	58 J	5 U	**320 J**	**310**	**750**	**2,300**	**490 J**	**2,000**	**470**	**320**	**340 J**	250	5 UJ
Copper (Cu)	NL		NL	---	---	---	---	---	---	---	---	---	0.47 J	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)	NL		NL	---	4,400	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Lead (Pb)	10		150	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL		NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-2 Standard (TCE/DCE/VC) or GW-3 Standard (Cr and Hexavalent Cr).

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (March 2008 - October 2009)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]			PP-4B	PP-4B	PP-4B
	GW-2 MCP (ug/L)	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Sep-08	Mar-09	Oct-09
Chlorinated Ethenes (ug/L)						
Tetrachloroethene	50	30,000	100,000	1.2	0.48 J	1.2
Trichloroethene (TCE)	30	5,000	50,000	**130**	**84**	**160**
cis-1,2-Dichloroethene	100	50,000	100,000	9.9	6.4	15
trans-1,2-Dichloroethene	90	50,000	100,000	1 U	1 U	1 U
1,1-Dichloroethene	80	30,000	100,000	1 U	1 U	1 U
Vinyl chloride	2	50,000	100,000	0.5 U	0.5 U	0.5 U
Chlorinated Ethanes (ug/L)						
Chloroethane	NL	NL	NL	2 U	2 U	2 U
1,1,1-Trichloroethane	4,000	20,000	100,000	1 U	1 U	1 U
1,1,2-Trichloroethane	900	50,000	100,000	1 U	1 U	1 U
1,1-Dichloroethane	1,000	20,000	100,000	1 U	1 U	1 U
1,2-Dichloroethane	5	20,000	100,000	1 U	1 U	1 U
Other VOCs (ug/L)						
Acetone	50,000	50,000	100,000	50 U	50 UJ	50 U
Benzene	2,000	10,000	100,000	1 U	1 U	1 U
Carbon disulfide	NL	NL	NL	10 U	10 U	10 U
Chlorobenzene	200	1,000	10,000	1 U	1 U	1 U
Ethylbenzene	20,000	5,000	100,000	1 U	1 U	1 U
Methylene chloride	10,000	50,000	100,000	2 U	2 U	2 U
Methyl-tert-butyl-ether (MTBE)	50,000	50,000	100,000	1 U	0.87 J	1 U
Toluene	50,000	40,000	100,000	1 U	1 U	1 U
Xylenes (Total)	9,000	5,000	100,000	2 U	2 U	2 U
Total Metals (ug/L)	*GW-3*					
Aluminum (Al)	NL		NL	---	---	---
Arsenic (As)	900		9,000	---	---	---
Chromium (Cr)	300		3,000	4.5 J	5 U	3.8 J
Chromium (Hexavalent)	300		3,000	21	5 U	5.2
Copper (Cu)	NL		NL	---	---	---
Iron (Fe)	NL		NL	---	---	---
Lead (Pb)	10		150	---	---	---
Manganese (Mn)	NL		NL	---	---	---

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-2 Standard (TCE/DCE/VC) or GW-3 Standard (Cr and Hexavalent Cr).

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Prepared by / Date: KJC 03/04/10

Checked by / Date: DLC 03/05/10

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (March 2008 - October 2009)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1] GW-2 MCP (ug/L)	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	CLW-17 Mar-08	CLW-17 Sep-08	CLW-17 Mar-09	CLW-17 Oct-09	CLW-18 Sep-08	CLW-18A Sep-08	CLW-19 Mar-08	CLW-19 Sep-08	CLW-19 Mar-09	CLW-19 Sep-09	CLW-20 Mar-08	CLW-20 Sep-08	CLW-20 Mar-09	CLW-20 Sep-09	CLW-21 Oct-08	CLW-22 Mar-08	CLW-22 Sep-08	CLW-22 Mar-09	CLW-22 Sep-09	CLW-27 Sep-08	CLW-27A Sep-08
Chlorinated Ethenes (ug/L)																								
Tetrachloroethene	50	30,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE)	30	5,000	50,000	20	16	22	18	0.73 J	7.9	0.27 J	1 U	1 U	1.1	1.9	6.4	2.4	0.9 J	3.2	3.3	4.4	6.1	4.5	1 U	1 U
cis-1,2-Dichloroethene	100	50,000	100,000	1.6	1.2	1.9	1.7	1 U	0.76 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.1	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	90	50,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	80	30,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	2	50,000	100,000	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorinated Ethanes (ug/L)																								
Chloroethane	NL	NL	NL	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1,1-Trichloroethane	4,000	20,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	900	50,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1,000	20,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5	20,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Other VOCs (ug/L)																								
Acetone	50,000	50,000	100,000	50 UJ	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	50 U	50 UJ	50 U	50 U
Benzene	2,000	10,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	NL	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ
Chlorobenzene	200	1,000	10,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	20,000	5,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	10,000	50,000	100,000	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl-tert-butyl-ether (MTBE)	50,000	50,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.5	1 U	1 U	1 U	1 U	3.1	4.3
Toluene	50,000	40,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.3	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes (Total)	9,000	5,000	100,000	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Total Metals (ug/L)	*GW-3*																							
Chromium (Hexavalent)	300		3,000	61 J	79	48	72	5 U	8.8	23	26 J	19	22	5 U	9 J	5 U	5 U	5 U	16	24 J	22	21	5 U	5 U

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-2 Standard (TCE/DCE/VC) or GW-3 Standard (Cr and Hexavalent Cr).

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (March 2008 - October 2009)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1] GW-2 MCP (ug/L)	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	CLW-29 Sep-08	CLW-29A Sep-08	CLW-30 Sep-08	CLW-30A Sep-08	CLW-31 Sep-08	CLW-36 Sep-08	CLW-17B Mar-08	CLW-17B Sep-08	CLW-17B Mar-09	CLW-17B Oct-09	CLW-18B Sep-08	CLW-19B Mar-08	CLW-19B Sep-08	CLW-19B Mar-09	CLW-19B Sep-09	CLW-20B Mar-08	CLW-20B Sep-08	CLW-20B Mar-09	CLW-20B Sep-09	CLW-21B Sep-08
Chlorinated Ethenes (ug/L)																							
Tetrachloroethene	50	30,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	0.26 J	1 U	1 U	1 U	0.5 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE)	30	5,000	50,000	1 U	2.4	1 U	1 U	1 U	3.6	**160**	**130**	**160**	**140**	18	1.0 J	0.80 J	0.81 J	0.97 J	0.64 J	1 U	1 U	1 U	0.93 J
cis-1,2-Dichloroethene	100	50,000	100,000	1 U	2.4	1 U	1 U	1 U	1 U	31	22	24	21	15	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	90	50,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	5.3	4.5	4.2	4.3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	80	30,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	0.5 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	2	50,000	100,000	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.27 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorinated Ethanes (ug/L)																							
Chloroethane	NL	NL	NL	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1,1-Trichloroethane	4,000	20,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	900	50,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1,000	20,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	0.63 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.91 J	0.90 J	0.9 J	1 U	1 U
1,2-Dichloroethane	5	20,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Other VOCs (ug/L)																							
Acetone	50,000	50,000	100,000	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	50 UJ	50 U
Benzene	2,000	10,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	NL	NL	NL	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	200	1,000	10,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	20,000	5,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	10,000	50,000	100,000	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl-tert-butyl-ether (MTBE)	50,000	50,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1.1	1.0	0.91 J	0.64 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	50,000	40,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	0.5 J	1 U	1 U	1 U	6.0	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes (Total)	9,000	5,000	100,000	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Total Metals (ug/L)	*GW-3*																						
Chromium (Hexavalent)	300		3,000	5 U	5 U	5 U	5 U	5 U	14	37 J	21	12	11	5 U	20	21 J	19	22	5 U	21 J	5 U	5 U	5 U

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-2 Standard (TCE/DCE/VC) or GW-3 Standard (Cr and Hexavalent Cr).

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (March 2008 - October 2009)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1] GW-2 MCP (ug/L)	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	CLW-22B Mar-08	CLW-22B Sep-08	CLW-22B Mar-09	CLW-22B Sep-09	CLW-27B Sep-08	CLW-29B Sep-08	CLW-30B Sep-08	CLW-31B Sep-08	CLW-36B Sep-08
Chlorinated Ethenes (ug/L)												
Tetrachloroethene	50	30,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE)	30	5,000	50,000	5.0	5.0	5.9	5.5	0.91 J	1 U	1 U	1 U	**55**
cis-1,2-Dichloroethene	100	50,000	100,000	0.24 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	11
trans-1,2-Dichloroethene	90	50,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	80	30,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	2	50,000	100,000	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorinated Ethanes (ug/L)												
Chloroethane	NL	NL	NL	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1,1-Trichloroethane	4,000	20,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	900	50,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1,000	20,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5	20,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Other VOCs (ug/L)												
Acetone	50,000	50,000	100,000	50 UJ	50 U	50 U	50 UJ	50 U	50 U	50 U	50 U	50 U
Benzene	2,000	10,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	NL	NL	NL	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U
Chlorobenzene	200	1,000	10,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	20,000	5,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	10,000	50,000	100,000	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl-tert-butyl-ether (MTBE)	50,000	50,000	100,000	1 U	1 U	1 U	1 U	9.2	1 U	1 U	1 U	1 U
Toluene	50,000	40,000	100,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes (Total)	9,000	5,000	100,000	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Total Metals (ug/L)	*GW-3*											
Chromium (Hexavalent)	300		3,000	23	24 J	18	21	5 U	5 U	5 U	5 U	5 U

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-2 Standard (TCE/DCE/VC) or GW-3 Standard (Cr and Hexavalent Cr).

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Prepared by / Date: KJC 03/04/10

Checked by / Date: DLC 03/05/10

Table 3
Summary of Compounds Detected in Groundwater
Recovery Wells (July 2009 - June 2011)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		RW-1	RW-1	RW-1	RW-2	RW-2	RW-2	RW-2	RW-4	RW-4	RW-4	RW-4	RW-4	RW-4	RW-5	RW-5
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Dec-09	Sep-10	Mar-11	Jun-10	Sep-10	Dec-10	Mar-11	Dec-09	Apr-10	Jun-10	Sep-10	Dec-10	Mar-11	Jun-10	Dec-10
Chlorinated Ethenes (ug/L)																	
Tetrachloroethene	30,000	100,000	1.0 U	4.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	0.68 J	1.0 U	0.38 J	1.9	1.5	1.0 U	---	---
Trichloroethene (TCE)	5,000	50,000	27	940	120	---	140	130	110	99	28	43	260	210	73	---	---
cis-1,2-Dichloroethene	50,000	100,000	4.5	530	64	---	150	190	140	16	6.1	17	16	16	18	---	---
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	6.0	2.1	---	4.7	5.0	2.8	0.67 J	1.0 U	0.53 J	0.79 J	0.91 J	0.31 J	---	---
1,1-Dichloroethene	30,000	100,000	1.0 U	1.4 J	1.0 U	---	1.1	1.1	0.95 J	1.0 U	1.0 U	1.0 U	0.29 J	1.0 U	1.0 U	---	---
Vinyl chloride	50,000	100,000	0.50 U	75	3.6	---	20	20	25	3.8	1.8	3.6	0.74	1.5	1.6	---	---
Chlorinated Ethanes (ug/L)																	
Chloroethane	NL	NL	2.0 U	8.0 U	2.0 U	---	1.2 J	2.0 U	0.73 J	2.0 U	2.0 U	0.79 J	2.0 U	2.0 U	2.0 U	---	---
1,1,1-Trichloroethane	20,000	100,000	1.0 U	4.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	---
1,1,2-Trichloroethane	50,000	100,000	1.0 U	4.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	---
1,1-Dichloroethane	20,000	100,000	1.0 U	4.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	---
Other VOCs (ug/L)																	
Methylene chloride	50,000	100,000	2.0 U	4.0 U	2.0 U	---	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	---	---
Toluene	40,000	100,000	1.0 U	10	1.0 U	---	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.40 J	2.0 U	1.0 U	1.0 U	---	---
Ethylbenzene	5,000	100,000	1.0 U	2.6 J	1.0 U	---	1.0 U	1.0 U	1.0 U	0.79 J	2.4	0.51 J	1.0 U	1.0 U	1.0 U	---	---
Xylenes (Total)	5,000	100,000	2.0 U	12 U	3.0 U	---	3.0 U	3.0 U	3.0 U	0.8 J	4.2 J	4.4	3.0 U	3.0 U	3.0 U	---	---
Total Metals (ug/L)																	
Aluminum (Al)	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900	9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300	3,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Hexavalent)	300	3,000	**2,800**	---	**330**	---	---	**420**	5.0 U	**580**	**400**	**460**	---	**620**	**500**	---	**1,600**
Copper (Cu)	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dissolved Metals (ug/L)																	
Antimony (Sb)	8,000	80,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900	9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium (Be)	200	2,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300	3,000	**2,690**	**720**	**340**	---	14	**370**	1.7 J	**565**	**410**	**450**	**1,100**	**570**	**440**	---	**1,400**
Copper (Cu)	NL	NL	640	1,200	170	6.4 J	6.5 J	11	4.3 J	26	76	52	53	32	32	160	87
Hexavalent Chromium, Dissolved	300	3,000	---	**560**	---	---	8.2	---	---	---	---	---	**1100**	---	---	---	---
Iron (Fe)	NL	NL	250	45 J	100 U	---	100 U	14 J	46 J	34 U	100 U	100 U	100 U	100 U	100 U	---	100 U
Lead (Pb)	10	150	---	---	---	---	---	---	---	---	**2,800**	---	---	---	---	---	---
Manganese (Mn)	NL	NL	8,200	36,000	8,100	---	17,000	11,000	10,000	2,400	---	5,300	4,800	3,100	2,100	---	200

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
Recovery Wells (July 2009 - June 2011)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		RW-5	RW-6	RW-6	RW-6	RW-6	RW-6	RW-6	RW-6	RW-7	RW-8	RW-8	RW-8	RW-8	RW-8	RW-8
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Mar-11	Oct-09	Dec-09	Apr-10	Jun-10	Sep-10	Dec-10	Mar-11	Dec-10	Jun-09	Oct-09	Dec-09	Apr-10	Jun-10	Sep-10
Chlorinated Ethenes (ug/L)																	
Tetrachloroethene	30,000	100,000	1.4	1.1	1.0 U	1.0 U	1.0 U	2.0	0.74 J	0.51 J	---	0.98 J	3.2	1.0 U	1.0 U	0.72 J	3.3
Trichloroethene (TCE)	5,000	50,000	140	79	31	51	41	140	72	41	---	48	340	19	9.2	28	100
cis-1,2-Dichloroethene	50,000	100,000	13	3.5	3.2	1.7	6.3	5.0	12	2.6	---	0.93 J	2.9	1.4	1.1	3.1	7.1
trans-1,2-Dichloroethene	50,000	100,000	0.68 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	0.84	0.50 U	0.50 U	0.50 U	0.90	0.50 U	0.50 U	0.50 U	---	0.50 U	0.50 U	0.50 U	0.50 U	0.33 J	0.25 J
Chlorinated Ethanes (ug/L)																	
Chloroethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	---	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,1-Trichloroethane	20,000	100,000	0.44 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																	
Methylene chloride	50,000	100,000	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	---	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U
Toluene	40,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	3.0 U	2.0 U	2.0 U	2.0 U	2.0 U	3.0 U	3.0 U	3.0 U	---	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	3.0 U
Total Metals (ug/L)																	
Aluminum (Al)	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900	9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300	3,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Hexavalent)	300	3,000	**890 J**	**1,900**	**2,500**	---	**1,800**	---	**1,800**	**980**	**1,200**	**340**	**650**	**620**	**380**	**670**	---
Copper (Cu)	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dissolved Metals (ug/L)																	
Antimony (Sb)	8,000	80,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900	9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium (Be)	200	2,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300	3,000	**850**	**2,000**	**2,300**	---	**1,700**	**2,400**	**1,500**	**930**	**1,100**	**380**	**670**	**629**	**390**	**650**	270
Copper (Cu)	NL	NL	80	39	130	---	84	38	42	26	7.0 J	4.0 J	10	35	15	30	3.9 J
Hexavalent Chromium, Dissolved	300	3,000	---	---	---	---	---	**1,700**	---	---	---	---	---	---	---	---	170
Iron (Fe)	NL	NL	100 U	40 J	34 U	---	100 U	100 U	100 U	100 U	100 U	16 U	34 U	34 U	100 U	100 U	100 U
Lead (Pb)	10	150	---	---	---	---	---	---	---	---	---	---	---	---	**240**	---	---
Manganese (Mn)	NL	NL	180	1.3 U	1.9 J	---	23	7.3 J	9.5 J	12	3.0 J	69	25	89	---	160	26

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
Recovery Wells (July 2009 - June 2011)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		RW-8	RW-9	RW-10	RW-10	RW-10	RW-11	RW-11	RW-11	RW-11	RW-12	RW-12	SRW-1	S-1
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Dec-10	Jun-10	Dec-09	Dec-10	Mar-11	Dec-09	Sep-10	Dec-10	Mar-11	Dec-09	Dec-10	Mar-11	Mar-11
Chlorinated Ethenes (ug/L)															
Tetrachloroethene	30,000	100,000	0.66 J	---	1.0 U	1.0 U	0.23 J	1.0 U	0.25 J	0.34 J	1.0 U	1.0 U	0.31 J	0.89 J	6.3
Trichloroethene (TCE)	5,000	50,000	26	---	160	310	350	31	330	220	140	180	300	110	150
cis-1,2-Dichloroethene	50,000	100,000	4.1	---	130	220	230	6.4	110	120	66	130	100	21	33
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	---	3.4	3.4	5.0	1.0 U	4.4	3.7	2.3	6.3	3.4	1.1	0.21 J
1,1-Dichloroethene	30,000	100,000	1.0 U	---	0.75 J	0.76 J	0.92 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.82 J
Vinyl chloride	50,000	100,000	0.50 U	---	7.2	13	18	0.50 U	3.7	0.50 U	3.5	7.2	0.50 U	0.50 U	5.8
Chlorinated Ethanes (ug/L)															
Chloroethane	NL	NL	2.0 U	---	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.76 J	2.0 U	2.0 U	1.6 J
1,1,1-Trichloroethane	20,000	100,000	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.76 J
1,1,2-Trichloroethane	50,000	100,000	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.78 J
Other VOCs (ug/L)															
Methylene chloride	50,000	100,000	2.0 U	---	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Toluene	40,000	100,000	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	4.3	1.0 U	1.0 U	4.5	0.75 J	1.0 U
Ethylbenzene	5,000	100,000	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	3.0 U	---	2.0 U	3.0 U	3.0 U	2.0 U	3.0 U	3.0 U	3.0 U	2.0 U	3.0 U	3.0 U	3.0 U
Total Metals (ug/L)															
Aluminum (Al)	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900	9,000	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300	3,000	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Hexavalent)	300	3,000	**680**	---	**1,100**	**1,300**	**1,100**	**4,300**	---	5.0 U	15	**9,200**	5.0 U	5.0 U	250
Copper (Cu)	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---
Dissolved Metals (ug/L)															
Antimony (Sb)	8,000	80,000	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900	9,000	---	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium (Be)	200	2,000	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300	3,000	**610**	---	**1,110**	**1,200**	**970**	**4,410**	110	**380**	30	**7,450**	290	**600**	250
Copper (Cu)	NL	NL	21	19	81	39	24	3,200	1,000	1,200	180	3,000	2,800	610	34
Hexavalent Chromium, Dissolved	300	3,000	---	---	---	---	---	---	69	---	---	---	---	---	---
Iron (Fe)	NL	NL	100 U	---	160	38 J	21 J	570	120 J	950	17 J	190	75 J	100 J	100 U
Lead (Pb)	10	150	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese (Mn)	NL	NL	130	---	53	6,700	2,800	58,000	35,000	36,000	9,200	4,500	44,000	53,000	890

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Prepared by / Date: PG 09/14/11

Checked by / Date: ARM 09/29/11

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (July 2009 - June 2011)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		CIW-1B	CIW-1B	CIW-1B	CIW-1B	CLW-5A	CLW-5A	CLW-5A	CLW-5B	CLW-5B	CLW-5B	CLW-5B	CLW-8	CLW-8	CLW-16B	CLW-16B DUP	CLW-16B	CLW-16B DUP
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Sep-09	Apr-10	Sep-10	Mar-11	Sep-09	Apr-10	Mar-11	Oct-09	Apr-10	Sep-10	Mar-11	Sep-09	Apr-10	Apr-10	Apr-10	Sep-10	Sep-10
Chlorinated Ethenes (ug/L)																			
Tetrachloroethene	30,000	100,000	9.4	12	24	16	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.44 J	0.49 J
Trichloroethene (TCE)	5,000	50,000	150	250	1,000	840	19	140	6.2	47	75	43	20	8.4	4.3	5.8	5.7	600 J	960 J
cis-1,2-Dichloroethene	50,000	100,000	35	25	120	130	42	57	0.22 J	78	160	140	17	1.0 U	1.1	1.0 U	1.0 U	250	260
trans-1,2-Dichloroethene	50,000	100,000	0.82 J	1.0 U	4.0 U	0.94 J	1.0 U	1.3	1.0 U	1.8	3.6	3.3	0.51 J	1.0 U	1.0 U	1.0 U	1.0 U	6.5	6.7
1,1-Dichloroethene	30,000	100,000	0.73 J	1.0 U	2.4 J	2.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.90 J	0.21 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	15	22	45	63	12	8.4	0.50 U	17	39	13	1.7	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 U
Chlorinated Ethanes (ug/L)																			
Chloroethane	NL	NL	1.2 J	0.58 J	5.2 J	3.9 J	2.0 U	2.0 U	2.0 U	1.0 J	0.60 J	4.4	0.38 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,1-Trichloroethane	20,000	100,000	1.0	1.2	3.4 J	2.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	1.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	0.75 J	0.96 J	1.5 J	1.7 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	1.0 U	1.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.36 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																			
Acetone	50,000	100,000	50 UJ	50 U	200 U	100 U	50 UJ	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	50 U	50 U
Benzene	10,000	100,000	1.0 U	1.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	40 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	2.4 J	4.2 J	10 U	10 U
Chlorobenzene	1,000	10,000	1.0 U	1.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	50,000	100,000	2.0 U	2.0 U	4.0 U	1.7 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	8.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Toluene	40,000	100,000	1.0 U	1.0 U	4.0 U	0.82 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.68 J	0.68 J
Xylenes (Total)	5,000	100,000	2.0 U	2.0 U	12 U	6.0 U	2.0 U	2.0 U	3.0 U	2.0 U	2.0 U	3.0 U	3.0 U	2.0 U	2.0 U	2.0 U	2.0 U	3.0 U	3.0 U
Total Metals (ug/L)																			
Aluminum (Al)	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900	9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300	3,000	**340**	150	**610**	**1,100**	**1,300**	**620**	140	3.3 J	98	**530**	72	170	280	**2,200**	**2,200**	**360**	**360**
Chromium (Hexavalent)	300	3,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**670**	130	5.0 U	16	5.0 U	75	150	270	5.0 U	5.0 U	190 J	5.0 UJ
Copper (Cu)	NL	NL	---	---	---		---	---		---	---	---		---	---	---	---	---	---
Iron (Fe)	NL	NL	---	---	---		---	---		---	---	---		---	---	---	---	---	---
Lead (Pb)	10	150	---	---	---		---	---		---	---	---		---	---	---	---	---	---
Manganese (Mn)	NL	NL	---	---	---		---	---		---	---	---		---	---	---	---	---	---

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Table 3B-1
Summary of Compounds Detected in Groundwater
On-Property Wells (July 2009 - June 2011)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		CLW-16B	DMW-A	DMW-A	DMW-A	DMW-B	DMW-B	DMW-B	DMW-B	OSW-1A	OSW-1A	OSW-1A DUP	OSW-1A	OSW-1A	OSW-1B	OSW-1B	OSW-1B	OSW-1B
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Mar-11	Apr-10	Sep-10	Mar-11	Sep-09	Apr-10	Sep-10	Mar-11	Oct-09	Apr-10	Apr-10	Sep-10	Mar-11	Oct-09	Apr-10	Sep-10	Mar-11
Chlorinated Ethenes (ug/L)																			
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	25 U	7.7 J
Trichloroethene (TCE)	5,000	50,000	31	8.4	3.3	20	5.8	34	23	18	0.64 J	7.4	7.7	12	9.0	**33,000**	**98,000**	**8,900**	**34,000**
cis-1,2-Dichloroethene	50,000	100,000	1.9	3.9	7.0	27	0.91 J	12	13	7.8	1.0 UJ	1.0 U	1.0 U	0.32 J	1.0 U	1,000	1,300	800	480
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	0.54 J	0.83 J	1.0 U	5.9	1.5	1.5	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	25 U	9.5 J
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	10 J	25 U
Vinyl chloride	50,000	100,000	0.50 U	0.99	1.1	11	0.50 U	0.50 U	0.54	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	85	240	230	50
Chlorinated Ethanes (ug/L)																			
Chloroethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	3.2 J	2.0 U	2.0 U	2.0 U	2.0 U	200 U	200 U	50 U	50 U
1,1,1-Trichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	25 U	25 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	25 U	25 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	25 U	25 U
1,2-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.8 J	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	25 U	25 U
Other VOCs (ug/L)																			
Acetone	50,000	100,000	50 U	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	170 J	50 UJ	50 U	50 U	50 U	5000 U	5000 U	1200 U	1200 U
Benzene	10,000	100,000	1.0 U	1.0 U	0.23 J	0.28 J	1.0 U	1.0 U	1U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	25 U	25 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.1 J	10 U	10 U	0.39 J	10 U	1000 U	1000 U	250 U	210 J
Chlorobenzene	1,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	25 U	25 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	25 U	25 U
Methylene chloride	50,000	100,000	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	7.3 J	2.0 U	2.0 U	1.0 U	2.0 U	200 U	200 U	25 U	40 J
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	2.0 U	1.0 U	100 U	100 U	47 J	25 U
Toluene	40,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	63 J	440	9.8 J	31
Xylenes (Total)	5,000	100,000	3.0 U	2.0 U	3.0 U	3.0 U	2.0 U	2.0 U	3.0 U	3.0 U	2.0 UJ	2.0 U	2.0 U	3.0 U	3.0 U	200 U	200 U	75 U	75 U
Total Metals (ug/L)																			
Aluminum (Al)	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900	9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300	3,000	**570**	4.3 J	5.9 U	2.0 J	9.9	1.3 J	5.0 U	11	**7,100**	**380**	**370**	**1,400**	53	20	4.5 J	6.1 J	21 J
Chromium (Hexavalent)	300	3,000	**540**	5.0 U	5.0 U	5.0 U	7.1	5.0 U	5.0 U	11	**7,600**	**400**	**380**	**1100**	52	5.0 U	5.0 U	5.0 U	R
Copper (Cu)	NL	NL		---	---		---	---	---		---	---	---	---		---	---	---	
Iron (Fe)	NL	NL		---	---		---	---	---		---	---	---	---		---	---	---	
Lead (Pb)	10	150		---	---		---	---	---		---	---	---	---		---	---	---	
Manganese (Mn)	NL	NL		---	---		---	---	---		---	---	---	---		---	---	---	

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (July 2009 - June 2011)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		OSW-2B	OSW-2B	OSW-2B	OSW-2B	OSW-3	OSW-3	OSW-3A	OSW-3B	OSW-3B	OSW-3B	OSW-3B	OSW-4I	OSW-4I	OSW-4I	OSW-4I	OSW-7A	OSW-7A DUP	OSW-7A
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Oct-09	Apr-10	Sep-10	Mar-11	Oct-09	Apr-10	Mar-11	Oct-09	Apr-10	Sep-10	Mar-11	Sep-09	Apr-10	Sep-10	Mar-11	Sep-09	Sep-09	Apr-10
Chlorinated Ethenes (ug/L)																				
Tetrachloroethene	30,000	100,000	7.8	2.0 U	22	1.0 U	1.0 U	1.0 U	0.21 J	10 U	2.0 UJ	0.95 J	0.68 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	**31,000**	690	**44,000**	150	1.0 U	6.7	75	3,200	38 J	420	440	78	64	110	140	31	34	28
cis-1,2-Dichloroethene	50,000	100,000	360	10	1100	3.4	1.0 U	1.5	28	500	9.0 J	140	150	74	63	130	120	7.3	8.0	3.8
trans-1,2-Dichloroethene	50,000	100,000	3.2 J	2.0 U	7.2	1.0 U	1.0 U	1.0 U	1.6	65	2.3 J	7.2	9.4	1.1	2.5	1.4	0.92 J	0.92 J	1.1	1.0 U
1,1-Dichloroethene	30,000	100,000	5.0 U	2.0 U	5.7	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 UJ	1.0 U	1.0 U	1.2	1.0 U	0.95 J	1.4	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	26	1.0 U	100	0.25 J	0.50 U	0.50 U	0.74	5.0 U	1.0 UJ	3.6	1.8	16	12	21	22	0.50 U	0.50 U	0.50 U
Chlorinated Ethanes (ug/L)																				
Chloroethane	NL	NL	10 U	4.0 U	4.0 U	2.0 U	2.4	2.0 U	2.0 U	20 U	4.0 UJ	2.0 U	2.0 U	2.0	2.0 U	2.0 U	1.2 J	2.0 U	2.0 U	2.0 U
1,1,1-Trichloroethane	20,000	100,000	5.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 UJ	0.23 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	5.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 UJ	0.31 J	0.23 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	5.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	5.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.23 J	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																				
Acetone	50,000	100,000	250 U	100 U	100 U	50 U	100	50 U	50 U	500 UJ	350 J	50 U	50 U	50 UJ	50 U	50 U	50 U	24 J	50 U	50 U
Benzene	10,000	100,000	5.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	50 U	20 U	20 U	10 U	0.66 J	10 U	10 U	100 U	2.2 J	6.6 J	0.98 J	10 U	0.82 J	10 U	10 U	0.63 J	10 U	10 U
Chlorobenzene	1,000	10,000	5.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5,000	100,000	5.0 U	2.0 U	1.9 J	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 UJ	1 UJ	1.0 U
Methylene chloride	50,000	100,000	10 U	4.0 U	2.0 U	2.0 U	2.5	2.0 U	2.0 U	20 U	3.3 J	1.0 U	0.24 J	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	5.0 U	2.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 UJ	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	40,000	100,000	29	2.0 U	62	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2.0 UJ	0.72 J	0.23 J	1.0 U	1.0 U	1.0 U	1.0 U	1 UJ	1 UJ	1.0 U
Xylenes (Total)	5,000	100,000	10 U	4.0 U	1.7 J	3.0 U	2.0 U	2.0 U	3.0 U	20 U	4.0 UJ	0.65 J	3.0 U	2.0 U	2.0 U	3.0 U	3.0 U	2 UJ	2 UJ	2.0 U
Total Metals (ug/L)																				
Aluminum (Al)	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900	9,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300	3,000	**3,100**	**730**	**2,400**	**560**	**14,000**	**1,700**	250	**4,900**	**8,000**	**3,400**	**1,600**	2.6 J	**2100**	**1,500**	**710**	**3,600**	**4,000**	**1,200**
Chromium (Hexavalent)	300	3,000	**3,500**	**750**	**2,700**	**570**	**15,000**	5.0 U	270	**3,800**	**5,900**	**2,300**	**1,700**	5.0 U	**2500**	**1100**	300	**2,200**	**2,100**	**1,500**
Copper (Cu)	NL	NL	---	---	---		---	---		---	---	---		---	---	---		---	---	---
Iron (Fe)	NL	NL	---	---	---		---	---		---	---	---		---	---	---		---	---	---
Lead (Pb)	10	150	---	---	---		---	---		---	---	---		---	---	---		---	---	---
Manganese (Mn)	NL	NL	---	---	---		---	---		---	---	---		---	---	---		---	---	---

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (July 2009 - June 2011)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		OSW-7A	OSW-7A DUP	OSW-7A	OSW-7A DUP	OSW-8A	OSW-8A DUP	PP-2	PP-2	PP-2	PP-2
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Sep-10	Sep-10	Mar-11	Mar-11	Mar-11	Mar-11	Sep-09	Apr-10	Sep-10	Mar-11
Chlorinated Ethenes (ug/L)												
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.42 J
Trichloroethene (TCE)	5,000	50,000	9.2	9.4	34	34	3.6	3.5	23	37	17	47
cis-1,2-Dichloroethene	50,000	100,000	3.2	3.2	4.5	5.1	1.0	1.0	8.3	7.0	33	21
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.1	0.72 J
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.2	0.47 J
Vinyl chloride	50,000	100,000	0.50 U	0.43 J	0.50 U	0.50 U	0.50 U	0.50 U	27	2.6	100	12
Chlorinated Ethanes (ug/L)												
Chloroethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.88 J	2.0 U	1.8 J	0.60 J
1,1,1-Trichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.26 J
1,1,2-Trichloroethane	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.51 J	1.0 U
Other VOCs (ug/L)												
Acetone	50,000	100,000	50 U	50 U	50 U	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	0.46 J	10 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	1,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	50,000	100,000	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U
Toluene	40,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	2.0 U	2.0 U	3.0 U	3.0 U
Total Metals (ug/L)												
Aluminum (Al)	NL	NL	---	---	---	---	---	---	---	---	---	---
Arsenic (As)	900	9,000	---	---	---	---	---	---	---	---	---	---
Chromium (Cr)	300	3,000	**1,500**	**1,500**	**450**	**430**	**320**	280	**430**	**940**	47	270
Chromium (Hexavalent)	300	3,000	**1300**	**1,400**	**470**	**600**	**380**	**340**	**310**	**830**	5.0 U	5.0 U
Copper (Cu)	NL	NL	---	---					---	---	---	
Iron (Fe)	NL	NL	---	---					---	---	---	
Lead (Pb)	10	150	---	---					---	---	---	
Manganese (Mn)	NL	NL	---	---					---	---	---	

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Prepared by / Date: PG 09/14/11

Checked by / Date: ARM 09/29/11

Table 3
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 and Post-ISCO February 2011)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BIW-6	BIW-6	BIW-7	BIW-7	BIW-14	BIW-14	BIW-15	BIW-15	BIW-16	BIW-16	BIW-31	BIW-31	BIW-32	BIW-32	BIW-33	BIW-33	BRW-4	BRW-4	BRW-5	BRW-5	OSW-1B	OSW-1B
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Dec-10	Feb-11	Dec-10	Feb-11	Dec-10	Feb-11	Dec-10	Feb-11	Dec-10	Feb-11	Dec-10	Feb-11	Dec-10	Jan-11	Dec-10	Jan-11	Dec-10	Feb-11	Dec-10	Feb-11	Dec-10	Feb-11
Chlorinated Ethenes (ug/L)																								
Tetrachloroethene	30,000	100,000	27 J	4.0 U	100 U	4.0 U	20 J	4.0 U	44 J	4.0 U	100 U	4.0 J	190 J	52	100 U	10 U	50 U	50 U	1.4 J	0.54 J	35 J	4.0 U	10 U	4.0 U
Trichloroethene (TCE)	5,000	50,000	**72,000**	2.3 J	**57,000**	140	**42,000**	5.9 J	**92,000**	5.4	**56,000**	4,700	**330,000**	920	**92,000**	2,000	**45,000**	33 J	2,800	790	**88,000**	300	**5,100**	230
cis-1,2-Dichloroethene	50,000	100,000	1700	4.0 U	2100	2.8 J	980	4.0 U	1400	4.0 U	77 J	10 U	1,700	10 U	28 J	10 U	50 U	50 U	30	7.6	2100	12	690	5.8
trans-1,2-Dichloroethene	50,000	100,000	100 U	4.0 U	100 U	4.0 U	50 U	4.0 U	100 U	4.0 U	100 U	10 U	250 U	10 U	100 U	10 U	50 U	50 U	5 U	0.27 J	100 U	4.0 U	4.2 J	0.87 J
1,1-Dichloroethene	30,000	100,000	100 U	4.0 U*	100 U	4.0 U*	50 U	4.0 U*	100 U	4.0 U*	100 U	10 U*	250 U	10 U*	100 U	10 U*	50 U	50 U	5 U	1.0 U*	100 U	4.0 U*	4.2 J	4.0 U*
Vinyl chloride	50,000	100,000	99	2.0 U	210	5.0 U	25 U	5.0 U	42 J	5.0 U	50 U	5.0 U	120 U	50 U	50 U	50 U	25 U	25 U	2.5 U	0.50 U	190	2.0 U	250	2.0 U
Chlorinated Ethanes (ug/L)																								
Chloroethane	NL	NL	200 U	8.0 U	200 U	4.6 J	100 U	8.0 U	200 U	8.0 U	200 U	20 U	500 U	9.0 J	200 U	20 U	100 U	9.7	10 U	2.0 U	200 U	6.3 J	20 U	8.0 U
1,1,1-Trichloroethane	20,000	100,000	100 U	4.0 U	100 U	4.0 U	50 U	4.0 U	100 U	4.0 U	100 U	10 U	250 U	10 U	100 U	10 U	50 U	50 U	5 U	1.0 U	100 U	4.0 U	10 U	4.0 U
1,1,2-Trichloroethane	50,000	100,000	100 U	4.0 U	100 U	7.0 J	50 U	4.0 U	100 U	4.0 U	100 U	4.5 J	250 U	300	100 U	10 U	50 U	27	5 U	1.0 U	100 U	4.0 U	10 U	6.7
1,1-Dichloroethane	20,000	100,000	100 U	4.0 U	100 U	10 U	50 U	4.0 U	100 U	4.0 U	100 U	10 U	250 U	100 U	100 U	10 U	50 U	50 U	5 U	1.0 U	100 U	2.5 J	10 U	1.3 J
1,2-Dichloroethane	20,000	100,000	100 U	4.0 U	100 U	17	50 U	4.0 U	100 U	4.0 U	100 U	10 U	250 U	91	100 U	10 U	50 U	53	5 U	1.0 U	100 U	8.3	10 U	15
Other VOCs (ug/L)																								
Acetone	50,000	100,000	5000 U	210 *	5000 U	500 U*	2500 U	380 J*	5000 U	370 J*	5000 UJ	500 U*	12000 UJ	5000 U*	5000 UJ	5000 U*	2500 UJ	1600 J	250 UJ	50 U*	5000 UJ	80 J*	500 U	200 U*
Benzene	10,000	100,000	100 U	4.0 U	100 U	4.0 U	50 U	4.0 U	100 U	4.0 U	100 U	10 U	250 U	3.6 J	100 U	10 U	50 U	50 U	5 U	1.0 U	100 U	4.0 U	10 U	4.0 U
Carbon disulfide	NL	NL	1000 U	1.8 J*	1000 U	29 J*	500 U	40 U*	1000 U	40 U*	1000 U	86 J*	2500 U	76 J*	1000 U	24 J*	500 U	500 U*	50 U	10 U*	1000 U	40 U*	100 U	35 J*
Chlorobenzene	1,000	10,000	100 U	4.0 U	100 U	4.0 U	50 U	4.0 U	100 U	4.0 U	100 U	10 U	250 U	10 U	100 U	10 U	50 U	50 U	5 U	1.0 U	100 U	4.0 U	10 U	4.0 U
Ethylbenzene	5,000	100,000	100 U	4.0 U	100 U	4.0 U	50 U	4.0 U	100 U	4.0 U	100 U	10 U	250 U	10 U	100 U	10 U	50 U	50 U	5 U	1.0 U	100 U	4.0 U	10 U	4.0 U
Methylene chloride	50,000	100,000	200 U	18	200 U	270	100 U	15 J	200 U	19 J	200 U	140	500 U	4800	200 U	30	100 U	880	10 U	2.0 U	200 U	47	20 U	260
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	100 U	4.0 U	100 U	4.0 U	50 U	4.0 U	100 U	4.0 U	100 U	10 U	250 U	10 U	100 U	10 U	50 U	50 U	5 U	1.0 U	100 U	4.0 U	10 U	4.0 U
Toluene	40,000	100,000	55 J	4.0 U	130	4.0 U	40 J	4.0 U	810	4.0 U	300	10 U	13000	10 U	480	10 U	50 U	50 U	24	1.0 U	320	3.0 J	18	4.0 U
Xylenes, m,p-	5,000	100,000	200 U	8.0 U	200 U	8.0 U	100 U	8.0 U	200 U	8.0 U	200 U	20 U	500 U	20 U	200 U	20 U	100 U	8.0 U	10 U	2.0 U	200 U	8.0 U	20 U	8.0 U
Xylene, o-	5,000	100,000	100 U	4.0 U	100 U	4.0 U	50 U	4.0 U	100 U	4.0 U	100 U	10 U	250 U	10 U	100 U	10 U	50 U	50 U	5 U	1.0 U	100 U	4.0 U	10 U	4.0 U

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Prepared by/Date: KJC 08/24/11
Checked by/Date: CTM 08/24/11

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (July 2009 - June 2011)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards		CLW-17	CLW-17	CLW-17	CLW-17	CLW-19	CLW-19	CLW-19	CLW-19	CLW-20	CLW-20	CLW-20	CLW-20	CLW-22	CLW-22	CLW-22	CLW-22	CLW-17B	CLW-17B
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Oct-09	Mar-10	Sep-10	Mar-11	Sep-09	Apr-10	Sep-10	Mar-11	Sep-09	Apr-10	Sep-10	Mar-11	Sep-09	Apr-10	Sep-10	Mar-11	Oct-09	Mar-10
Chlorinated Ethenes (ug/L)																				
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	18	24	26	12	1.1	1.0 U	2.2	0.47 J	0.90 J	1.9	0.94 J	2.0	4.5	1.3	10	3.9	140	140
cis-1,2-Dichloroethene	50,000	100,000	1.7	2.0	2.6	1.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.74 J	1.0 U	21	27
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.3	5.5
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chlorinated Ethanes (ug/L)																				
Chloroethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,1-Trichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																				
Acetone	50,000	100,000	50 U	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	50 U	50 U
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	1,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	50,000	100,000	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.64 J	1.0 U
Toluene	40,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	2.0 U	2.0 U	3.0 U	3.0 U	2.0 U	2.0 U	3.0 U	3.0 U	2.0 U	2.0 U	3.0 U	3.0 U	2.0 U	2.0 U	3.0 U	3.0 U	2.0 U	2.0 U
Total Metals (ug/L)																				
Chromium (Total)	300	3,000	---	59	75	51	---	17 U	34	20	---	3.1 U	4.5 J	1.3 J	---	13 U	38	20	---	11
Chromium (Hexavalent)	300	3,000	72	60	73	60	22	16	29	20	5.0 U	5.0 U	5.0 U	5.0 U	21	14	31	24	11	10

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (July 2009 - June 2011)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards		CLW-17B Sep-10	CLW-17B Mar-11	CLW-19B Sep-09	CLW-19B Apr-10	CLW-19B Sep-10	CLW-19B Mar-11	CLW-20B Sep-09	CLW-20B Apr-10	CLW-20B Sep-10	CLW-20B Mar-11	CLW-22B Sep-09	CLW-22B Apr-10	CLW-22B Sep-10	CLW-22B Mar-11	PP-3 Oct-09	PP-3 Mar-10	PP-3 Sep-10
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)																	
Chlorinated Ethenes (ug/L)																			
Tetrachloroethene	30,000	100,000	0.27 J	0.26 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3	1.0 U	4.7 J
Trichloroethene (TCE)	5,000	50,000	140	140	0.97 J	0.89 J	2.1	1.3	1.0 U	1.0 U	0.57 J	0.52 J	5.5	4.5	10	4.0	220	4.0	1,700
cis-1,2-Dichloroethene	50,000	100,000	23	25	1.0 U	1.0 U	1.0 U	0.27 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.71 J	1.0 U	63	1.0 U	580
trans-1,2-Dichloroethene	50,000	100,000	4.1	5.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1-Dichloroethene	30,000	100,000	0.41 J	0.49 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.3 J
Vinyl chloride	50,000	100,000	0.22 J	0.22 J	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.3 J
Chlorinated Ethanes (ug/L)																			
Chloroethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U
1,1,1-Trichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1-Dichloroethane	20,000	100,000	0.57 J	0.56 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3	0.31	0.91 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Other VOCs (ug/L)																			
Acetone	50,000	100,000	50 U	50 U	50 UJ	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	50 UJ	50 U	50 U	50 U	50 U	50 U	250 U
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U
Chlorobenzene	1,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Methylene chloride	50,000	100,000	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	0.55 J	0.53 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Toluene	40,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Xylenes (Total)	5,000	100,000	3.0 U	3.0 U	2.0 U	2.0 U	3.0 U	3.0 U	2.0 U	2.0 U	3.0 U	3.0 U	2.0 U	2.0 U	3.0 U	3.0 U	2.0 U	2.0 U	15 U
Total Metals (ug/L)																			
Chromium (Total)	300	3,000	7.0	10	---	17 U	29	14	---	1.7 U	1.1 J	5.0 U	---	18	32	16	**1,700**	290	**14,000**
Chromium (Hexavalent)	300	3,000	5U	11	22	25	25	17	5.0 U	5.0 U	5.0 U	5.0 U	21	17	29	16	**2,000**	**330**	**15,000**

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (July 2009 - June 2011)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards		PP-3 DUP Sep-10	PP-3 Mar-11	PP-4A Oct-09	PP-4A Mar-10	PP-4A Sep-10	PP-4A Mar-11	PP-4B Oct-09	PP-4B Mar-10	PP-4B Sep-10	PP-4B Mar-11
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)										
Chlorinated Ethenes (ug/L)												
Tetrachloroethene	30,000	100,000	4.3 J	0.72 J	1.0 U	1.0 U	0.27 J	0.30 J	1.2	1.0 U	0.90 J	0.72 J
Trichloroethene (TCE)	5,000	50,000	1,600	68	41	15	22	80	160	14	150	140
cis-1,2-Dichloroethene	50,000	100,000	600	8.6	5.1	1.0 U	3.1	27	15	0.95 J	75	58
trans-1,2-Dichloroethene	50,000	100,000	5.0 U	0.50 J	1.0 U	1.0 U	1.0 U	1.6	1.0 U	1.0 U	0.38 J	0.20 J
1,1-Dichloroethene	30,000	100,000	2.4 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.59 J	1.0 U
Vinyl chloride	50,000	100,000	2.3 J	0.50 U	0.50 U	0.50 U	0.50 U	0.34 J	0.50 U	0.50 U	2.3	0.24 J
Chlorinated Ethanes (ug/L)												
Chloroethane	NL	NL	10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,1-Trichloroethane	20,000	100,000	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)												
Acetone	50,000	100,000	250 U	50 U	50 U	120	50 U	50 U	50 U	50 U	50 U	50 U
Benzene	10,000	100,000	5.0 U	1.0 U	1.0 U	1.0 U	0.33 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	50 U	10 U	10 U	1.1 J	10 U	0.27 J	10 U	10 U	10 U	10 U
Chlorobenzene	1,000	10,000	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5,000	100,000	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	50,000	100,000	5.0 U	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	2.0 U	0.26 J	2.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	10 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	0.21 J
Toluene	40,000	100,000	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	15 U	3.0 U	2.0 U	2.0 U	3.0 U	3.0 U	2.0 U	2.0 U	3.0 U	3.0 U
Total Metals (ug/L)												
Chromium (Total)	300	3,000	**15,000**	**1,500**	220	**10,000**	**4,800**	**5,500**	3.8 J	9.4	3.6 J	5.0 U
Chromium (Hexavalent)	300	3,000	**15,000**	29	250	**11,000**	5.0 U	**6,600**	5.2	5.0 U	5.0 U	5.0 U

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Prepared by / Date: PG 09/14/11

Checked by / Date: ARM 09/29/11

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (March 2011 - December 2012)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		CIW-1B	CIW-1B	CIW-1B	CLW-1B	CLW-5A	CLW-5A	CLW-5A	CLW-5B	CLW-5B	CLW-5B	CLW-5B	CLW-8	CLW-8 DUP	CLW-8	CLW-8	CLW-8
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Mar-11	Nov-11	Mar-12	Aug-12	Mar-11	Nov-11	Mar-12	Mar-11	Nov-11	Mar-12	Aug-12	Mar-11	Mar-11	Nov-11	Mar-12	Aug-12
Chlorinated Ethenes (ug/L)																		
Tetrachloroethene	30,000	100,000	16	32	28	19	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.20 J
Trichloroethene (TCE)	5,000	50,000	840	1,500	1,100	630	6.2	5.5	1.2	20	40	1,800	1,200	3.6	3.5	6.6	9.1	31
cis-1,2-Dichloroethene	50,000	100,000	130	320	130	88	0.22 J	1.0 U	1.0 U	17	18	860	740	1.0	1.0	4.3	6.2	11
trans-1,2-Dichloroethene	50,000	100,000	0.94 J	4.0	1.9 J	2.5	1.0 U	1.0 U	1.0 U	0.51 J	0.32 J	9.8	9.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	2.5	3.9	2.6	2.1	1.0 U	1.0 U	1.0 U	0.21 J	0.35 J	11	14	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	63	170	53	44	0.50 U	0.50 U	0.50 U	1.7	4.2	370	240	0.50 U	0.50 U	0.53	0.85	1.2
Chlorinated Ethanes (ug/L)																		
Chloroethane	NL	NL	3.9 J	4.2	5.8	8.4	2.0 U	2.0 U	2.0 U	0.38 J	2.0 U	2.6	2.9 J	2.0 U	2.0 U	2.0 U	2.0 U	0.29 J
1,1,2,2-Tetrachloroethane	50,000	100,000	1.0 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U
1,1,1-Trichloroethane	20,000	100,000	2.8	2.7	2.6	1.9	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	1.7 J	3.2	2.1	2.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.52 J	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																		
Benzene	10,000	100,000	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	20 U	10 U	0.67 J	10 U	10 U	10 U	0.50 J	10 U	10 U	0.32 J	50 U	10 U	10 U	2.1 J	10 U	10 U
Chlorobenzene	1,000	10,000	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	20,000	10,000	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	4.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	50,000	100,000	1.7 J	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	40,000	100,000	0.82 J	1.4	0.69 J	0.58 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.79 J	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	6.0 U	0.70 J	0.56 J	0.40 J	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	1.3	10 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Total Metals (ug/L)																		
Chromium (Cr)	300	3,000	**1,100**	270	120	150	140	130	77	72	72	7.0	5.0 U	**320**	280	**380**	280	**650**
Chromium (Hexavalent)	300	3,000	5.0 U	5.0 U	5.0 U	5.0 U	130	75	74	75	62	5.6	5.0 U	**380**	**340**	**350**	**350**	**740**

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (March 2011 - December 2012)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		CLW-16B	CLW-16B	CLW-16B	CLW-16B	DMW-A	DMW-A	DMW-A	DMW-A	DMW-B	DMW-B	DMW-B	DMW-B	OSW-1A	OSW-1A	OSW-1A	OSW-1A
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Mar-11	Nov-11	Mar-12	Aug-12	Mar-11	Nov-11	Mar-12	Aug-12	Mar-11	Nov-11	Mar-12	Aug-12	Mar-11	Nov-11	Mar-12	Aug-12
Chlorinated Ethenes (ug/L)																		
Tetrachloroethene	30,000	100,000	1.0 U	2.1 J	3.2	6.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	31	3,000	3,000	**7,600**	20	6.5	19	5.4	18	43	24	27	9.0	1.6	3.8	58.0
cis-1,2-Dichloroethene	50,000	100,000	1.9	470	440	1,300	27	17	19	20	7.8	28	36	54	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	2.6 J	3.2	6.5	0.83 J	0.71 J	0.87 J	0.52 J	1.5	5.6	5.3	11	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	4.0 U	0.70 J	1.4	1.0 U	0.40 J	0.69 J	0.63 J	1.0 U	1.0 U	1.0 U	0.28 J	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	0.50 U	99	0.50 U	0.50 U	11	0.95	0.50 U	1.6	0.50 U	0.41 J	0.40 J	1.9	0.50 U	0.50 U	0.50 U	0.50 U
Chlorinated Ethanes (ug/L)																		
Chloroethane	NL	NL	2.0 U	8.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.41 J	2.0 U	2.0 U	2.0 U	2.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	2.0 U	0.20 J	0.28 J	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.70
1,1,1-Trichloroethane	20,000	100,000	1.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	1.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	1.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																		
Benzene	10,000	100,000	1.0 U	4.0 UJ	1.0 U	0.24 J	0.28 J	1.0 U	1.0 U	0.22 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	40 U	10 U	2.4 J	10 U	2.0 J	10 U	10 U	10 U	1.3 J	10 U	10 U	10 U	10 U	10 U	0.70 J
Chlorobenzene	1,000	10,000	1.0 U	4.0 U	1.0 U	1.0 U	1.0 U	0.38 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	20,000	10,000	1.0 U	1.7 J	0.50 J	0.38 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.40 J
Chloromethane	NL	NL	2.0 U	8.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.2 J
Ethylbenzene	5,000	100,000	1.0 U	1.2 J	1.7	2.9	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	50,000	100,000	2.0 U	8.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	4.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	40,000	100,000	1.0 U	9.7 J	11	25	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	3.0 U	5.0 J	7.9	12.3	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Total Metals (ug/L)																		
Chromium (Cr)	300	3,000	**570**	**650**	**400**	250	2.0 J	5.0 U	4.2 J	1.5 J	11	5.0 U	1.4 J	5.0 U	53	160	150	**700**
Chromium (Hexavalent)	300	3,000	**540**	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	11	5.0 U	5.0 U	5.0 U	52	220	170	**830**

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (March 2011 - December 2012)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		OSW-1B	OSW-1B	OSW-1B	OSW-2B	OSW-2B	OSW-2B	OSW-2B DUP	OSW-2B	OSW-3A	OSW-3A	OSW-3A	OSW-3B	OSW-3B	OSW-3B DUP	OSW-3B	OSW-3B	OSW-4I	OSW-4I	OSW-4I	OSW-4I
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Mar-11	Mar-12	Aug-12	Mar-11	Nov-11	Mar-12	Mar-12	Aug-12	Mar-11	Nov-11	Mar-12	Mar-11	Nov-11	Nov-11	Mar-12	Aug-12	Mar-11	Nov-11	Mar-12	Aug-12
Chlorinated Ethenes (ug/L)																						
Tetrachloroethene	30,000	100,000	7.7 J	50 U	20 U	1.0 U	5.0 U	0.66 J	0.61 J	20 U	0.21 J	0.27 J	1.0 U	0.68 J	5.0 U	0.25 J	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	**34,000**	**19,000**	**7,400**	150	980	1,100	1,100	**6,100**	75	34	26	440	26	35	130	84	140	41	75	69
cis-1,2-Dichloroethene	50,000	100,000	480	370	230	3.4	15	19	19	260	28	2.6	1.5	150	19 J	2.7 J	39	31	120	54	85	86
trans-1,2-Dichloroethene	50,000	100,000	9.5 J	50 U	9.6 J	1.0 U	5.0 U	1.0 U	1.0 U	20 U	1.6	1.0 U	1.0 U	9.4	5.0 U	1.0 U	1.6	2.2 J	0.92 J	1.2	0.95 J	0.74 J
1,1-Dichloroethene	30,000	100,000	25 U	50 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	1.4	0.40 J	1.2	1.1
Vinyl chloride	50,000	100,000	50	51	24	0.25 J	2.5 U	0.50 U	0.50 U	10 U	0.74	0.50 U	0.50 U	1.8	2.5 U	0.50 U	0.50 U	5.0 U	22	10	15	14
Chlorinated Ethanes (ug/L)																						
Chloroethane	NL	NL	50 U	100 U	40 U	2.0 U	10 U	2.0 U	2.0 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	2.0 U	2.0 U	20 U	1.2 J	1.1 J	0.79 J	0.78 J
1,1,2,2-Tetrachloroethane	50,000	100,000	37	25 U	7.1 J	0.50 U	2.5 U	0.50 U	0.50 U	10 U	0.50 U	0.50 U	0.50 U	1.7	2.5 U	0.50 U	0.50 U	5.0 U	0.27 J	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	20,000	100,000	25 U	50 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	25 U	50 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	0.23 J	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	25 U	50 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	25 U	50 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	0.23 J	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																						
Benzene	10,000	100,000	25 U	50 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	210 J	500 U	18 J	10 U	5.3 J	10 U	10 U	5.9 J	10 U	4.6 J	0.82 J	0.98 J	50 U	1.2 J	10 U	100 U	10 U	1.1 J	0.81 J	1.8 J
Chlorobenzene	1,000	10,000	25 U	50 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	20,000	10,000	10 J	50 U	20 U	1.0 U	5.0 U	0.41 J	0.42 J	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.9 J	1.0 U	0.77 J	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	130	100 U	40 U	2.0 U	10 U	2.0 UJ	2.0 U	40 U	2.0 U	2.0 U	2.0 U	0.39 J	10 U	2.0 U	2.0 U	20 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	25 U	50 U	20 U	1.0 U	5.0 U	0.31 J	0.30 J	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	50,000	100,000	40 J	100 U	42 U	2.0 U	10 U	2.0 U	2.0 U	29 J	2.0 U	2.0 U	2.0 U	0.24 J	10 U	2.0 U	2.0 U	20 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	25 U	50 U	20 U	1.0 U	5.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	40,000	100,000	31	50 U	20 U	1.0 U	7.7	9.8	10	40	1.0 U	1.0 U	1.0 U	0.23 J	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	75 U	150 U	40 U	3.0 U	15 U	1.3 J	1.4 J	40 U	3.0 U	3.0 U	3.0 U	3.0 U	15 U	3.0 U	3.0 U	30 U	3.0 U	3.0 U	3.0 U	3.0 U
Total Metals (ug/L)																						
Chromium (Cr)	300	3,000	21 J	13	5.0 U	**560**	**740**	**980**	**1,400**	**740**	250	51	23	**1,600**	110 J	49 J	190	27	**710**	140	82	97
Chromium (Hexavalent)	300	3,000	50	5.0 U	5.0 U	**570**	5.0 U	5.0 UJ	5.0 U	5.0 U	270	250 U	5.0 U	**1,700**	5.0 U	5.0 U	5.0 U	5.0 U	300	92	5.0 U	5.0 U

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (March 2011 - December 2012)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		OSW-7A Mar-11	OSW-7A DUP Mar-11	OSW-7A Nov-11	OSW-7A Mar-12	OSW-7A Aug-12	OSW-7A DUP Aug-12	PP-2 Mar-11	PP-2 Nov-11	PP-2 Mar-12	PP-2 Aug-12
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)										
Chlorinated Ethenes (ug/L)												
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.42 J	0.36 J	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	34	34	30	16	76 J	75	47	38	33	33
cis-1,2-Dichloroethene	50,000	100,000	4.5	5.1	9.3	3.1	26	25	21	14	11	23
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	0.20 J	1.0 U	0.72 J	0.83 J	0.48 J	0.60 J
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	0.23 J	1.0 U	0.44 J	0.34 J	0.47 J	1.0 U	0.20 J	0.74 J
Vinyl chloride	50,000	100,000	0.50 U	0.50 U	0.50 U	0.50 U	0.41 J	0.42 J	12	8.5	8.1	33
Chlorinated Ethanes (ug/L)												
Chloroethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	0.45 J	0.35 J	0.60 J	0.50 J	2.0 U	1.2 J
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.22 J	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.26 J	0.25 J	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)												
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	0.20 J	1.6 J	0.97 J	10 U	10 U	10 U	10 U
Chlorobenzene	1,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	50,000	100,000	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	40,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Total Metals (ug/L)												
Chromium (Cr)	300	3,000	**450**	**430**	**510**	220	**680**	**680**	270	210	120	28
Chromium (Hexavalent)	300	3,000	**470**	**600**	**540**	230	**710**	**740**	5.0 U	5.0 U	5.0 U	25 U

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Prepared by / Date: KJC 02/19/13

Checked by / Date: CTM 02/19/13

Table 3
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO December 2012)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BIW-1	BIW-1	BIW-1	BIW-1	BIW-1	BIW-1	BIW-2	BIW-2	BIW-2	BIW-2	BIW-2	BIW-2	BIW-4	BIW-4	BIW-4	BIW-4	BIW-4	BIW-4	BIW-5	BIW-5	BIW-5	BIW-5	BIW-5	BIW-5
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Oct-12	Aug-11	Jan-12	Feb-12	Feb-12	Aug-12	Nov-12	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Oct-12	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Nov-12
Chlorinated Ethenes (ug/L)																										
Tetrachloroethene	30,000	100,000	20 U	20 U	10 U	3.1 J	20 U	3.8	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.4 J	10 U	1.5	2.4	3.0	1.0	7.6	100 U	5.7	5.8 J	8.7 J	100 U	19
Trichloroethene (TCE)	5,000	50,000	**8,400**	**7,400**	4,600	4,400	4,600	**10,000 B**	90	24	18	21	23	400 B	770	200	870	1,100	200	**11,000 B**	**35,000**	1,100	1,600 J	**5,500**	**18,000**	**44,000 B**
cis-1,2-Dichloroethene	50,000	100,000	3,600	3,600	1,900	1,700	1,900	4,200	22	9.7	7.4	7.1	4.8 J	63	47	54	100	130	41	820	2,100	180	170 J	510	1,900	3,800
trans-1,2-Dichloroethene	50,000	100,000	22	41	14	14	25	21	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.5	10 U	3.6	2.0	1.7 J	2.2	14	29 J	25	26 J	47	100 U	61
1,1-Dichloroethene	30,000	100,000	5.9 J	5.0 J	3.8 J	10 U	20 U	4.7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	100 U	5.0 U	5.0 UJ	20 U	100 U	0.78 J
Vinyl chloride	50,000	100,000	510	580	540	630	630	1800	1.9 J	2.5 U	2.5 U	2.5 U	2.5 U	1.0	5.0 U	0.50 U	0.50 U	1.0 U	0.50 U	5.1	400	4.3	4.9 J	10 U	420	470
Chlorinated Ethanes (ug/L)																										
Chloroethane	NL	NL	40 U	40 U	20 U	20 U	40 U	0.54 J	10 U	10 U	10 U	10 U	10 U	2.0 U	20 U	2.0 U	2.0 U	4.0 U	2 U	2 U	200 U	4.6 J	5.6 J	40 U	200 U	2.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	10 U	10 U	5.0 U	5.0 U	10 U	0.83	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.27 J	5.0 U	4.7	1.1	1.0 U	3.3	1.2	50 U	140	130 J	78	50 U	6.2
1,1,1-Trichloroethane	20,000	100,000	20 U	20 U	10 U	10 U	20 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	100 U	5.0 U	5.0 UJ	20 U	100 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	20 U	20 U	10 U	10 U	20 U	0.49 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	10 U	0.93 J	1.0 U	2.0 U	0.79 J	1.0 U	100 U	30	21 J	6.8 J	100 U	0.83 J
1,1-Dichloroethane	20,000	100,000	20 U	20 U	10 U	10 U	20 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	100 U	5.0 U	5.0 UJ	20 U	100 U	1.0 U
1,2-Dichloroethane	20,000	100,000	20 U	20 U	10 U	10 U	20 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	10 U	1.0 U	1.0 U	2.0 U	0.31 J	1.0 U	100 U	14	14 J	20 U	100 U	0.40 J
Other VOCs (ug/L)																										
2-Butanone	50,000	100,000	200 U	200 U	100 U	100 U	200 U	10 U	50 U	50 U	50 U	50 U	50 U	10 U	100 U	1.7 J	10 U	20 U	1.6 J	10 U	1,000 U	50 U	50 UJ	200 U	1,000 U	10 U
2-Chlorotoluene	NL	NL	20 U	20 U	10 U	10 U	20 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	100 U	5.0 U	5 UJ	20 U	100 U	1.0 U
4-Chlorotoluene	NL	NL	20 U	20 U	10 U	10 U	20 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	100 U	5.0 U	5 UJ	20 U	100 U	1.0 U
Acetone	50,000	100,000	1,000 U*	1,000 U	500 U	500 U	1000 U	50 U	250 U	250 U	250 U	250 U	250 U	50 U	500 U*	50 U	50 U	100 U	33 J	50 U	5,000 U*	250 U	250 UJ	1,000 U	5,000 U	50 U
Benzene	10,000	100,000	20 U	20 U	10 U	10 U	20 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	100 U	5.0 U	5.0 UJ	20 U	100 U	0.48 J
Bromodichloromethane	50,000	100,000	10 U	10 U	5.0 U	5.0 U	10 U	0.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.50 U	5.0 U	0.50 U	0.50 U	1.0 U	0.30 J	0.50 U	50 U	2.5 U	2.5 UJ	10 U	50 U	0.50 U
Butylbenzene	NL	NL	20 U	20 U	10 U	10 U	20 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	2.7 JB	0.94 J	1.0 U	2.0 U	0.27 J	1.0 U	100 U	5.0 U	5.0 UJ	20 U	100 U	1.0 U
Carbon disulfide	NL	NL	200 U*	200 U	5.5 J	7.5 J	200 U	0.74 J	50 U	50 U	11 J	7.2 J	50 U	10 U	100 U*	3.5 J	3.4 J	1.7 J	10 J	1.8 J	1,000 U*	70	63 J	31 J	1,000 U	15
Carbon tetrachloride	5,000	50,000	20 U	20 U	10 U	10 U	20 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	100 U	5.0 U	5.0 UJ	20 U	100 U	1.0 U
Chlorobenzene	1,000	10,000	20 U	20 U	10 U	10 U	20 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	100 U	5.0 U	5.0 UJ	20 U	100 U	1.0 U
Chloroform	20,000	100,000	20 U	20 U	10 U	10 U	20 U	1.0 U	4.5 J	1.6 J	1.3 J	5.0 U	5.0 U	1.0 U	2.5 J	1.6	0.97 J	0.60 J	1.3	1.0 U	100 U	28	19 J	20 U	100 U	2.6
Chloromethane	NL	NL	40 U	40 U	20 U	20 U	40 U	2.0 U	10 U	320	10 U	10 U	10 U	2.0 U	20 U	4.9	2.0 U	4.0 U	8.1	2.0 U	200 U	150	49 J	15 J	200 U	6.0
Ethylbenzene	5,000	100,000	20 U	20 U	2.0 J	2.1 J	20 U	3.4	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	10 U	0.46 J	1.3	1.3 J	1.0 U	2.4	100 U	5.0 U	5.0 UJ	20 U	100 U	3.0
Methylene chloride	50,000	100,000	40 U	40 U	20 U	20 U	42 U	1.0 U	10 U	10 U	10 U	10 U	10 U	1.0 U	20 U	1.7 J	1.7 J	4.0 U	20 U	0.7 J	200 U	210	90 J	24 J	200 U	4.2
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	20 U	20 U	10 U	10 U	20 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	100 U	5.0 U	5.0 UJ	20 U	100 U	1.0 U
Toluene	40,000	100,000	32	20 U	23	24	21	47	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.63 J	3.1 J	2.5	7.4	8.1	1.8	22	33 J	5.0 U	5.0 UJ	20 U	31 J	70
Xylenes, m,p-	5,000	100,000	40 U	40 U	20 U	20 U	40 U	5.3	10 U	10 U	10 U	10 U	10 U	1.2 J	20 U	0.94 J	4.5	4.8	0.67 J	7.9	200 U	10 U	4.0 UJ	40 U	200 U	4.1
Xylene, o-	5,000	100,000	20 U	20 U	2.1 J	2.5 J	20 U	3.2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	10 U	0.42 J	1.9	2.1	0.25 J	3.3	100 U	5.0 U	5.0 UJ	20 U	100 U	0.97 J
Metals, Total (ug/L)																										
Chromium	300	3,000	240	---	53	60	33	19	**1,300**	---	**530**	**340**	150	130	**13,000**	---	**2,300**	**1,500**	**4,300**	**430**	75	---	20	**430**	**1,200**	70
Hexavalent Chromium	300	3,000	5.0 U	---	5.0 U	5.0 U	5.0 U	5.0 U	50 U	---	5.0 U	1,000 U	5.0 U	5.0 U	50 U	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	---	500 U	5.0 U	**630**	51
Iron	NL	NL	---	13,000	---	6,800	---	12,000	140,000 B	31,000	---	6,200	---	4,000	---	33,000	---	5,900	---	6,000	---	460,000	---	12,000	---	2,300
Metals, Dissolved (ug/L)																										
Chromium	300	3,000	240	---	---	---	---	---	**1,300**	---	---	---	---	---	**14,000**	---	---	---	---	---	54	---	---	---	---	---
Iron	NL	NL	---	4,200	---	5,300	---	---	75,000	25,000	---	6,300	---	---	---	27,000	---	6,000	---	---	---	380,000	---	1,900	---	---

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Table 3
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO December 2012)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BIW-6	BIW-6	BIW-6	BIW-6	BIW-6	BIW-6	BIW-6	BIW-6	BIW-7	BIW-7	BIW-7	BIW-7	BIW-7	BIW-7	BIW-7	BIW-7	BIW-14	BIW-14	BIW-14	BIW-14	BIW-14	BIW-14	BIW-14
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Dec-10	Feb-11	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Oct-12	Dec-10	Feb-11	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Nov-12	Dec-10	Feb-11	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Oct-12
Chlorinated Ethenes (ug/L)																										
Tetrachloroethene	30,000	100,000	27 J	4.0 U	250 U	50 U	16 J	21 J	11 J	200 U	100 U	4.0 U	100 U	20 U	100 U	12 J	100 U	8.1	20 J	4.0 U	33 J	12 J	50 U	12 J	10 J	200 U
Trichloroethene (TCE)	5,000	50,000	**72,000**	2.3 J	**130,000**	**12,000**	**41,000**	**51,000**	**14,000**	**110,000 B**	**57,000**	140	**41,000**	4,400	**46,000**	**51,000**	**30,000**	**24,000 B**	**42,000**	5.9 J	**49,000**	**17,000**	**16,000**	**21,000**	**14,000**	**26,000 B**
cis-1,2-Dichloroethene	50,000	100,000	1700	4.0 U	1,500	270	980	1,300	560	3,500	2100	2.8 J	1,200	150	1,700	2,100	1,100	880	980	4.0 U	1,500	1,100	650	650	760	1,300
trans-1,2-Dichloroethene	50,000	100,000	100 U	4.0 U	250 U	50 U	50 U	50 U	56	200 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	26	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	200 U
1,1-Dichloroethene	30,000	100,000	100 U	4.0 U*	250 U	50 U	50 U	50 U	50 U	200 U	100 U	4.0 U*	100 U	20 U	100 U	50 U	100 U	0.46 J	50 U	4.0 U*	100 U	50 U	50 U	50 U	50 U	200 U
Vinyl chloride	50,000	100,000	99	2.0 U	180	27	120	190	25 U	500	210	5.0 U	87	14	200	240	99	92	25 U	5.0 U	230	300	75	25 U	61	100 U
Chlorinated Ethanes (ug/L)																										
Chloroethane	NL	NL	200 U	8.0 U	500 U	100 U	100 U	100 U	100 U	400 U	200 U	4.6 J	200 U	40 U	200 U	100 U	200 U	2 U	100 U	8.0 U	200 U	100 U	100 U	100 U	100 U	400 U
1,1,2,2-Tetrachloroethane	50,000	100,000	50 U	16	130 U	85	27	24 J	290	100 U	50 U	56	50 U	190	30 J	13 J	29 J	12	25 U	5.0 U	50 U	20 J	25 U	25 U	33	100 U
1,1,1-Trichloroethane	20,000	100,000	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U	200 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	1.0 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	200 U
1,1,2-Trichloroethane	50,000	100,000	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U	200 U	100 U	7.0 J	100 U	14 J	100 U	50 U	100 U	0.78 J	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	200 U
1,1-Dichloroethane	20,000	100,000	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U	200 U	100 U	10 U	100 U	20 U	100 U	50 U	100 U	1.0 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	200 U
1,2-Dichloroethane	20,000	100,000	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U	200 U	100 U	17	100 U	8.8 J	100 U	50 U	100 U	0.40 J	50 U	4.0 U	100 U	16 J	50 U	50 U	50 U	200 U
Other VOCs (ug/L)																										
2-Butanone	50,000	100,000	1,000 U	33 J*	2500 U	500 U	500 U	500 U	500 U	2,000 U	1,000 U	40 U*	1,000 U	200 U	1,000 U	5,00 U	1,000 U	10 U	500 U	40 U*	1,000 U	500 U	500 U	500 U	500 U	2,000 U
2-Chlorotoluene	NL	NL	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U	200 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	1.0 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	200 U
4-Chlorotoluene	NL	NL	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U	200 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	1.0 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	200 U
Acetone	50,000	100,000	5,000 U	210 *	13,000 U*	2,500 U	2,500 U	2,500 U	2,500 U	10,000 U	5,000 U	500 U*	5,000 U	1,000 U	5,000 U	2,500 U	5,000 U	50 U	2,500 U	380 J*	5,000 U	2,500 U	2,500 U	2,500 U	2,500 U	10,000 U
Benzene	10,000	100,000	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U	200 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	1.0 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	200 U
Bromodichloromethane	50,000	100,000	100 U	2.0 U	130 U	25 U	25 U	25 U	25 U	100 U	100 U	5.0 U	50 U	10 U	50 U	25 U	50 U	0.50 U	50 U	5.0 U	50 U	25 U	25 U	25 U	25 U	100 U
Butylbenzene	NL	NL	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U	200 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	1.0 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	200 U
Carbon disulfide	NL	NL	1,000 U	1.8 J*	2,500 U*	35 J	110 J	64 J	130 J	2,000 U	1,000 U	29 J*	35 J*	32 J	25 J	19 J	58 J	35	500 U	40 U*	1,000 U	38 J	26 J	18 J	44 J	2,000 U
Carbon tetrachloride	5,000	50,000	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U	200 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	1.0 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	200 U
Chlorobenzene	1,000	10,000	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U	200 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	1.0 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	200 U
Chloroform	20,000	100,000	100 U	10	250 U	50 U	50 U	50 U	50 U	200 U	100 U	49	100 U	40	100 U	50 U	100 U	5.1	50 U	15	100 U	25 J	50 U	50 U	24 J	200 U
Chloromethane	NL	NL	200 U	59	500 U	140	100 U	47 J	40 J	400 U	200 U	410	200 U	500	78 J	28 J	63 J	20	100 U	67	200 U	1,000	210	47 J	200	400 U
Ethylbenzene	5,000	100,000	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U	200 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	1.0 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	200 U
Methylene chloride	50,000	100,000	200 U	18	500 U	100 U	100 U	100 U	100 U	200 U	200 U	270	200 U	150	200 U	100 U	200 U	1.0 U	100 U	15 J	200 U	460	92 J	100 U	89 J	200 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U	200 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	1.0 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	200 U
Toluene	40,000	100,000	55 J	4.0 U	1,400	50 U	140	160	50 U	300	130	4.0 U	67 J	6.3 J	48 J	62	44 J	10	40 J	4.0 U	450	80	50 U	15 J	50 U	200 U
Xylenes, m,p-	5,000	100,000	200 U	8.0 U	500 U	100 U	100 U	100 U	100 U	400 U	200 U	8.0 U	200 U	40 U	200 U	100 U	200 U	2.0 U	100 U	8.0 U	200 U	100 U	100 U	100 U	100 U	400 U
Xylene, o-	5,000	100,000	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U	200 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	1.0 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	200 U
Metals, Total (ug/L)																										
Chromium	300	3,000	---	---	6.9 J	---	200	200	24 J	41	---	---	0.86 J	---	76 B	56	0.95 J	2.0 J	---	---	180	---	**1,300**	270	**1400**	83
Hexavalent Chromium	300	3,000	---	---	5.0 U	---	30	5.0 U	250 U	5.0 U	---	---	5.0 U	---	2,500 U	5.0 U	5.0 U	5.0 U	---	---	190	---	250 U	5.0 U	2.5 U	86
Iron	NL	NL	---	---	61,000 B	2,200,000	---	430,000	---	74,000	---	---	1,100	2,100,000	---	100,000	---	6,900	---	---	---	2,300,000	---	37,000	---	3,800
Metals, Dissolved (ug/L)																										
Chromium	300	3,000	---	---	5.3 J	---	---	---	---	---	---	---	10 U	---	---	---	---	---	---	---	220	---	---	---	---	---
Iron	NL	NL	---	---	55,000	2,000,000	---	430,000	---	---	---	---	350	2,000,000	---	95,000	---	---	---	---	---	2,300,000	---	34,000	---	---

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Table 3
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO December 2012)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BIW-15	BIW-15	BIW-15	BIW-15	BIW-15	BIW-15	BIW-15	BIW-15	BIW-16	BIW-16	BIW-16	BIW-16	BIW-16	BIW-16	BIW-16	BIW-16	BIW-24	BIW-24	BIW-24	BIW-24	BIW-24	BIW-24
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Dec-10	Feb-11	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Nov-12	Dec-10	Feb-11	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Nov-12	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Nov-12
Chlorinated Ethenes (ug/L)																								
Tetrachloroethene	30,000	100,000	44 J	4.0 U	200 U	27 J	36 J	35 J	43 J	49	100 U	4.0 J	100 U	250 U	200 U	200 U	25 U	3.7 J	10 U	2.4 J	2.0 J	3.1 J	6.1 J	200 U
Trichloroethene (TCE)	5,000	50,000	**92,000**	5.4	**74,000**	**45,000**	**71,000**	**79,000**	**69,000**	**100,000 B**	**56,000**	4,700	**37,000**	**64,000**	**74,000**	**91,000**	**9,300**	22,000 B	1,800	2,000	2,400	1,200	**6,100**	**19,000 B**
cis-1,2-Dichloroethene	50,000	100,000	1,400	4.0 U	590	650	960	980	480	2,000 U	77 J	10 U	100 U	84 J	46 J	77 J	6.3 J	8.4	310	550	530	510	900	2200
trans-1,2-Dichloroethene	50,000	100,000	100 U	4.0 U	200 U	100 U	100 U	100 U	100 U	16	100 U	10 U	100 U	250 U	200 U	200 U	25 U	1.0 U	4.1 J	6	4.8 J	6.1 J	10 J	200 U
1,1-Dichloroethene	30,000	100,000	100 U	4.0 U*	100 U	100 U	100 U	100 U	100 U	1.2	100 U	10 U*	100 U	250 U	200 U	200 U	25 U	1.0 U	10 U	5.0 U	5.0 U	10 U	20 U	200 U
Vinyl chloride	50,000	100,000	42 J	5.0 U	100 U	28 J	45 J	46 J	50 U	20	50 U	5.0 U	50 U	130 U	100 U	100 U	13 U	0.50 U	5.0 U	2.5 U	2.5 U	5.0 U	240	700
Chlorinated Ethanes (ug/L)																								
Chloroethane	NL	NL	200 U	8.0 U	400 U	200 U	200 U	200 U	200 U	2.0 U	200 U	20 U	200 U	500 U	400 U	400 U	50 U	2.0 U	20 U	10 U	10 U	20 U	40 U	400 U
1,1,2,2-Tetrachloroethane	50,000	100,000	50 U	5.0 U	100 U	86	46 J	35 J	130	420 J	50 U	270	50 U	130 U	100 U	100 U	13 U	0.50 U	5.0 U	1.7 J	1.7 J	5.0 U	10 U	100 U
1,1,1-Trichloroethane	20,000	100,000	100 U	4.0 U	200 U	100 U	100 U	100 U	100 U	1.0 U	100 U	10 U	100 U	250 U	200 U	200 U	25 U	1.0 U	10 U	5.0 U	5.0 U	10 U	20 U	200 U
1,1,2-Trichloroethane	50,000	100,000	100 U	4.0 U	200 U	21 J	100 U	100 U	100 U	4.0	100 U	4.5 J	100 U	250 U	200 U	200 U	25 U	1.0 U	10 U	5.0 U	5.0 U	10 U	20 U	200 U
1,1-Dichloroethane	20,000	100,000	100 U	4.0 U	200 U	100 U	100 U	100 U	100 U	1.0 U	100 U	10 U	100 U	250 U	200 U	200 U	25 U	1.0 U	10 U	5.0 U	5.0 U	10 U	20 U	200 U
1,2-Dichloroethane	20,000	100,000	100 U	4.0 U	200 U	100 U	100 U	100 U	100 U	2.1	100 U	10 U	100 U	250 U	200 U	200 U	25 U	1.0 U	10 U	5.0 U	5.0 U	10 U	20 U	200 U
Other VOCs (ug/L)																								
2-Butanone	50,000	100,000	1,000 U	40 U*	2,000 U	1,000 U	1,000 U	1,000 U	1,000 UJ	10 U	1,000 U	100 U*	1,000 U	2,500 U	2,000 U	2,000 U	250 U	10 U	100 U	50 U	50 U	100 U	200 U	2,000 U
2-Chlorotoluene	NL	NL	100 U	4.0 U	200 U	100 U	100 U	100 U	100 U	3.2	100 U	10 U	100 U	250 U	200 U	200 U	25 U	1.0 U	10 U	5.0 U	5.0 U	10 U	20 U	200 U
4-Chlorotoluene	NL	NL	100 U	4.0 U	200 U	100 U	100 U	100 U	100 U	1.4	100 U	10 U	100 U	250 U	200 U	200 U	25 U	1.0 U	10 U	5.0 U	5.0 U	10 U	20 U	200 U
Acetone	50,000	100,000	5,000 U	370 J*	10,000 U	5,000 U	5,000 U	5,000 U	5,000 U	50 U	5,000 UJ	500 U*	5,000 U	13,000 U	10,000 U	10,000 U	1,300 U	50 U	500 U*	250 U	250 U	500 U	1,000 U	10,000 U
Benzene	10,000	100,000	100 U	4.0 U	200 U	100 U	100 U	100 U	100 U	1.7	100 U	10 U	100 U	250 U	200 U	200 U	25 U	1.0 U	10 U	5.0 U	5.0 U	10 U	20 U	200 U
Bromodichloromethane	50,000	100,000	100 U	5.0 U	100 U	50 U	50 U	50 U	50 U	0.50 U	100 U	5.0 U	50 U	130 U	100 U	100 U	13 U	0.50 U	5.0 U	2.5 U	2.5 U	5.0 U	10 U	100 U
Butylbenzene	NL	NL	100 U	4.0 U	200 U	100 U	100 U	100 U	100 U	1.0 U	100 U	10 U	100 U	250 U	200 U	200 U	25 UJ	1.0 U	10 U	5.0 U	5.0 U	10 U	20 U	200 U
Carbon disulfide	NL	NL	1,000 U	40 U*	54 J	1,000 U	72 J	82 J	200 J	84	1,000 U	86 J*	1,000 U*	2,500 U	2,000 U	2,000 U	7.6 J	10 U	5.5 J*	5.6 J	8.1 J	10 J	9.4 J	2,000 U
Carbon tetrachloride	5,000	50,000	100 U	4.0 U	200 U	100 U	100 U	100 U	100 U	1.0 U	100 U*	10 U	100 U	250 U	200 U	200 U	25 U	1.0 U	10 U	5.0 U	5.0 U	10 U	20 U	200 U
Chlorobenzene	1,000	10,000	100 U	4.0 U	200 U	100 U	100 U	100 U	100 U	1.0 U	100 U	10 U	100 U	250 U	200 U	200 U	25 U	1.0 U	10 U	5.0 U	5.0 U	10 U	20 U	200 U
Chloroform	20,000	100,000	100 U	6.6 J	200 U	76 J	37 J	25 J	81 J	20	100 U	54	100 U	250 U	200 U	200 U	25 U	2.5	2.0 J	5.0 U	5.0 U	10 U	20 U	200 U
Chloromethane	NL	NL	200 U	41	400 U	720	240	180 J	170 J	33	200 U	230	200 U	71 J	400 U	400 U	50 U	2.0 U	20 U	10 U	10 U	20 U	40 U	400 U
Ethylbenzene	5,000	100,000	100 U	4.0 U	200 U	100 U	100 U	100 U	100 U	2.2	100 U	10 U	100 U	250 U	200 U	200 U	25 U	1.0 U	10 U	5.0 U	5.0 U	10 U	20 U	200 U
Methylene chloride	50,000	100,000	200 U	19 J	400 U	440	200	140 J	510	37	200 U	140	200 U	500 U	400 U	400 U	61 U	0.53 J	20 U	10 U	10 U	20 U	40 U	200 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	100 U	4.0 U	200 U	100 U	100 U	100 U	100 U	1.0 U	100 U	10 U	100 U	250 U	200 U	200 U	25 U	1.0 U	10 U	5.0 U	5.0 U	10 U	20 U	200 U
Toluene	40,000	100,000	810	4.0 U	1,600	1,300	1,800	1,900	66 J	2,000 U	300	10 U	260	250 U	200 U	200 U	28	11	5.8 J	6.0	6.9	5.1 J	5.6 J	200 U
Xylenes, m,p-	5,000	100,000	200 U	8.0 U	400 U	200 U	200 U	200 U	200 U	2 U	200 U	20 U	200 U	500 U	400 U	400 U	50 U	2.0 U	20 U	10 U	10 U	20 U	40 U	400 U
Xylene, o-	5,000	100,000	100 U	4.0 U	200 U	100 U	100 U	100 U	100 U	1.0 U	100 U	10 U	100 U	250 U	200 U	200 U	25 U	1.0 U	10 U	5.0 U	5.0 U	10 U	20 U	200 U
Metals, Total (ug/L)																								
Chromium	300	3,000	---	---	140	---	330 B	240	**430**	50	---	---	**480**	---	43	50	**520**	**530**	**5100**	---	**330**	200	180	55
Hexavalent Chromium	300	3,000	---	---	68	---	500 U	250 U	5,000 U	50 U	---	---	**600**	---	5.0 U	5.0 U	**590**	**500**	50 U	---	5.0 U	5.0 U	5.0 U	5.0 U
Iron	NL	NL	---	---	---	2,200,000	---	520,000	---	7,300	---	---	---	28000	---	3700	---	190	---	75000	---	46000	---	10,000
Metals, Dissolved (ug/L)																								
Chromium	300	3,000	---	---	130	---	---	---	---	---	---	---	**610**	---	---	---	---	---	**4800**	---	---	---	---	---
Iron	NL	NL	---	---	---	2,000,000	---	550,000	---	---	---	---	---	26000	---	3100	---	---	---	85000	---	43000	---	---

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Table 3
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO December 2012)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BIW-31	BIW-31	BIW-31	BIW-31	BIW-31	BIW-31	BIW-31	BIW-31	BIW-32	BIW-32	BIW-32	BIW-32	BIW-32	BIW-32	BIW-32	BIW-32	BIW-33	BIW-33	BIW-33	BIW-33	BIW-33	BIW-33	BIW-33
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Dec-10	Feb-11	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Nov-12	Dec-10	Jan-11	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Oct-12	Dec-10	Jan-11	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12
Chlorinated Ethenes (ug/L)																									
Tetrachloroethene	30,000	100,000	190 J	52	100 U	6.0 J	100 U	55 J	10 U	10 U	100 U	10 U	200 U	2.0 U	20 U	10 U	20 U	4.6	50 U	50 U	50 U	5.0 U	5.0 U	50 U	10 U
Trichloroethene (TCE)	5,000	50,000	**330,000**	920	**36,000**	1,200	**110,000**	**130,000**	3.9 J	250 B	**92,000**	2,000	**77,000**	610	4,700	4,000	**8,300**	**24,000 B**	**45,000**	33 J	**14,000**	390	**6,400**	**21,000**	2,000
cis-1,2-Dichloroethene	50,000	100,000	1,700	10 U	72 J	20 U	1300	1100	10 U	10 U	28 J	10 U	200 U	2.0 U	20 U	10 U	20 U	2.6	50 U	50 U	50 U	1.6 J	3.9 J	50 U	2.9 J
trans-1,2-Dichloroethene	50,000	100,000	250 U	10 U	100 U	20 U	32 J	200 U	10 U	10 U	100 U	10 U	200 U	2.0 U	20 U	10 U	20 U	1.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U	10 U
1,1-Dichloroethene	30,000	100,000	250 U	10 U*	100 U	20 U	100 U	200 U	10 U	10 U	100 U	10 U*	200 U	2.0 U	20 U	10 U	20 U	0.39 J	50 U	50 U	50 U	5.0 U	5.0 U	50 U	10 U
Vinyl chloride	50,000	100,000	120 U	50 U	50 U	10 U	50 U	100 U	5.0 U	5.0 U	50 U	50 U	100 U	1.0 U	10 U	5.0 U	10 U	0.50 U	25 U	25 U	25 U	2.5 U	2.5 U	25 U	5.0 U
Chlorinated Ethanes (ug/L)																									
Chloroethane	NL	NL	500 U	9.0 J	200 U	20 J	200 U	400 U	20 U	20 U	200 U	20 U	400 U	4.0 U	40 U	20 U	40 U	2.0 U	100 U	9.7	100 U	12	4.1 J	100 U	20 U
1,1,2,2-Tetrachloroethane	50,000	100,000	120 U	4,300	3,600	4,200	1,500	1,700	290	380	50 U	59	50 U	2.2	10 U	2.3 J	26	4.1	25 U	43	13.J	36	51	42	62
1,1,1-Trichloroethane	20,000	100,000	250 U	10 U	100 U	20 U	100 U	200 U	10 U	10 U	100 U	10 U	200 U	2.0 U	20 U	10 U	20 U	1.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U	10 U
1,1,2-Trichloroethane	50,000	100,000	250 U	300	150	830	200	200	17	24	100 U	10 U	200 U	0.86 J	20 U	10 U	20 U	1.0 U	50 U	27	50 U	31	6.0	50 U	10 U
1,1-Dichloroethane	20,000	100,000	250 U	100 U	100 U	15 J	100 U	200 U	10 U	10 U	100 U	10 U	200 U	2.0 U	20 U	10 U	20 U	1.0 U	50 U	50 U	50 U	3.2 J	5.0 U	50 U	10 U
1,2-Dichloroethane	20,000	100,000	250 U	91	63 J	220	53 J	200 U	3.8 J	2.9 J	100 U	10 U	200 U	2.0 U	20 U	10 U	20 U	1.0 U	50 U	53	50 U	68	16	50 U	2.3 J
Other VOCs (ug/L)																									
2-Butanone	50,000	100,000	2,500 U	1,000 U *	1,000 U	200 U	1,000 U	2,000 U	100 U	100 U	1,000 U	1,000 U *	2,000 U	20 U	200 U	100 U	200 U	10 U	500 U	500 U	500 U	50 U	50 U	500 U	100 U
2-Chlorotoluene	NL	NL	250 U	100 U	100 U	20 U	100 U	200 U	10 U	10 U	100 U	100 U	200 U	2.0 U	20 U	10 U	20 U	1.0 U	50 U	50 U	50 U	5 U	5 U	50 U	10 U
4-Chlorotoluene	NL	NL	250 U	100 U	100 U	20 U	100 U	200 U	10 U	10 U	100 U	100 U	200 U	2.0 U	20 U	10 U	20 U	1.0 U	50 U	50 U	50 U	5 U	5 U	50 U	10 U
Acetone	50,000	100,000	12,000 UJ	5,000 U*	5,000 U	1,000 U	5,000 U	10,000 U	500 U	110 J	5,000 UJ	5,000 U*	10,000 U	100 U	1,000 U	500 U	1,000 U	50 U	2,500 UJ	1,600 J	2,500 U	110 J	250 U	2500 U	500 U
Benzene	10,000	100,000	250 U	3.6 J	100 U	20 U	100 U	200 U	10 U	10 U	100 U	10 U	200 U	2.0 U	20 U	10 U	20 U	1.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U	10 U
Bromodichloromethane	50,000	100,000	250 U	50 U	50 U	10 U	50 U	100 U	5.0 U	5.0 U	100 U	50 U	50 U	1.0 U	10 U	5.0 U	10 U	0.5 U	50 U	25 U	25 U	2.5 U	2.5 U	25 U	5.0 U
Butylbenzene	NL	NL	250 U	100 U	100 U	20 U	100 U	200 U	10 U	10 U	100 U	100 U	200 U	2.0 U	20 U	10 U	20 U	1.0 U	50 U	50 U	50 U	5 U	5.0 U	50 U	10 U
Carbon disulfide	NL	NL	2,500 U	76 J*	78 J	50 J	120 J	180 J	11 J	21 J	1,000 U	24 J*	2,000 U*	0.99 J	200 U	6.4 J	52 J	1.3 J	500 U	500 U*	26 J	11 J	16 J	25 J	7.5 J
Carbon tetrachloride	5,000	50,000	250 U*	100 U	100 U	20 U	100 U	200 U	10 U	10 U	100 U*	100 U	200 U	2.0 U	20 U	10 U	20 U	4.0	50 U*	50 U	50 U	5.0 U	4.5 J	16 J	10 U
Chlorobenzene	1,000	10,000	250 U	10 U	100 U	20 U	100 U	200 U	10 U	10 U	100 U	10 U	200 U	2.0 U	20 U	10 U	20 U	1.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U	10 U
Chloroform	20,000	100,000	250 U	2,500	1,200	4,500	1,300	1,300	230	570	100 U	24 J	200 U	2.1	20 U	2.1 J	4.0 J	1.5	50 U	70	11 J	54	18	11 J	7.4 J
Chloromethane	NL	NL	500 U	1,900	660	4,900	950	1,100	190	240	200 U	200 U	400 U	94	6.8 J	75	53	3.1	100 U	1,300	290	2,800	760	430	190
Ethylbenzene	5,000	100,000	250 U	10 U	100 U	20 U	100 U	200 U	10 U	10 U	100 U	10 U	200 U	2.0 U	20 U	10 U	20 U	1.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U	10 U
Methylene chloride	50,000	100,000	500 U	4,800	1,800	8,900	2,000	2,100	320	500	200 U	30	400 U	30	40 U	30	52 U	0.98 J	100 U	880	100 U	1,400	320	170	65
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	250 U	10 U	100 U	20 U	100 U	200 U	10 U	10 U	100 U	10 U	200 U	2.0 U	20 U	10 U	20 U	1.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U	10 U
Toluene	40,000	100,000	13,000	10 U	23 J	20 U	2,500	160 J	10 U	10 U	480	10 U	960	1.8 J	10 J	8.6 J	99	5.9	50 U	50 U	18 J	5.0 U	3.4 J	50 U	10 U
Xylenes, m,p-	5,000	100,000	500 U	20 U	200 U	40 U	200 U	400 U	20 U	20 U	200 U	20 U	400 U	4.0 U	40 U	20 U	40 U	2.0 U	100 U	8.0 U	100 U	10 U	10 U	100 U	20 U
Xylene, o-	5,000	100,000	250 U	10 U	100 U	20 U	100 U	200 U	10 U	10 U	100 U	10 U	200 U	2.0 U	20 U	10 U	20 U	1.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U	10 U
Metals, Total (ug/L)																									
Chromium	300	3,000	---	---	**1,100**	---	140 B	250	**410**	**390**	---	---	62	---	39 B	48	31	48	---	---	23	---	**340**	140	**420**
Hexavalent Chromium	300	3,000	---	---	2,500 U	---	250 U	250 U	5,000 U	2,500 U	---	---	79	---	5 U	5 U	13 U	74	---	---	25	---	250 U	130 U	500 U
Iron	NL	NL	---	---	1,500,000	1,200,000	---	290,000	---	470,000	---	---	---	95,000	---	42,000	---	1,200	---	---	3,400 B	1,900,000	---	44,000	---
Metals, Dissolved (ug/L)																									
Chromium	300	3,000	---	---	**1,200**	---	---	---	---	---	---	---	63	---	---	---	---	---	---	---	47	---	---	---	---
Iron	NL	NL	---	---	1,600,000	980,000	---	160,000	---	---	---	---	---	65,000	---	52,000	---	---	---	---	3,100	1,800,000	---	53,000	---

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Table 3
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO December 2012)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BMW-5	BMW-5	BMW-5	BMW-5	BMW-5	BMW-5	OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-1B
	GW-3 MCP	UCL GW MCP	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Oct-12	Dec-10	Feb-11	Aug-11	Jan-12	Feb-12	Mar-12	Nov-12
	(ug/L)	(ug/L)													
Chlorinated Ethenes (ug/L)															
Tetrachloroethene	30,000	100,000	28 J	37 J	50	32 J	29 J	49	10 U	4.0 U	50 U	100 U	50 U	25 U	1.3 J
Trichloroethene (TCE)	5,000	50,000	**25,000**	**26,000**	**28,000**	**25,000**	**15,000**	**31,000 B**	**5,100**	230	**16,000 E**	**20,000**	**18,000**	**24,000**	**7,000 B**
cis-1,2-Dichloroethene	50,000	100,000	2,000	2,200	1,900	2,000	1,400	2,200	690	5.8	320	390	350	410	200
trans-1,2-Dichloroethene	50,000	100,000	100 U	100 U	20 J	15 J	22 J	15	4.2 J	0.87 J	50 U	100 U	50 U	25 U	2.0
1,1-Dichloroethene	30,000	100,000	100 U	100 U	15 J	15 J	50 U	12	4.2 J	4.0 U*	50 U	100 U	50 U	25 U	1.7
Vinyl chloride	50,000	100,000	470	410	330	300	320	200 U	250	2.0 U	45	60	50	53	27
Chlorinated Ethanes (ug/L)															
Chloroethane	NL	NL	200 U	200 U	100 U	100 U	100 U	4.6	20 U	8.0 U	8.0 U	200 U	100 U	50 U	2.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	50 U	50 U	25 U	25 U	25 U	3.7	5.0 U	22	25 U	50 U	25 U	13 U	0.64
1,1,1-Trichloroethane	20,000	100,000	100 U	100 U	50 U	50 U	50 U	1.0 U	10 U	4.0 U	50 U	100 U	50 U	25 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	100 U	100 U	50 U	50 U	50 U	1.0 U	10 U	6.7	50 U	100 U	50 U	25 U	1.0 U
1,1-Dichloroethane	20,000	100,000	100 U	100 U	50 U	50 U	50 U	1.0 U	10 U	1.3 J	50 U	100 U	50 U	25 U	1.0 U
1,2-Dichloroethane	20,000	100,000	100 U	100 U	50 U	50 U	50 U	1.0 U	10 U	15	50 U	100 U	50 U	25 U	1.0 U
Other VOCs (ug/L)															
2-Butanone	50,000	100,000	1,000 U	1,000 U	500 U	500 U	500 U	10 U	100 U	40 U*	500 U	1000 U	500 U	250 U	10 U
2-Chlorotoluene	NL	NL	100 U	100 U	50 U	50 U	50 U	1.0 U	10 U	4.0 U	50 U	100 U	50 U	25 U	1.0 U
4-Chlorotoluene	NL	NL	100 U	100 U	50 U	50 U	50 U	1.0 U	10 U	4.0 U	50 U	100 U	50 U	25 U	1.0 U
Acetone	50,000	100,000	5,000 U	5,000 U	2,500 U	2,500 U	2500 U	50 U	500 U	200 U*	2,500 U	5,000 U	2,500 U	1,300 U	50 U
Benzene	10,000	100,000	100 U	100 U	50 U	50 U	50 U	1.0 U	10 U	4.0 U	50 U	100 U	50 U	25 U	1.0 U
Bromodichloromethane	50,000	100,000	50 U	50 U	25 U	25 U	25 U	0.50 U	10 U	2.0 U	25 U	50 U	25 U	13 U	0.50 U
Butylbenzene	NL	NL	100 U	100 U	50 U	50 U	50 U	1.0 U	10 U	4.0 U	50 U	100 U	50 U	25 U	1.0 U
Carbon disulfide	NL	NL	43 J*	47 J	36 J	17 J	30 J	24	100 U	35 J*	39 J*	51 J	24 J	72 J	2.4 J
Carbon tetrachloride	5,000	50,000	100 U	100 U	50 U	50 U	50 U	1.0 U	10 U	4.0 U	50 U	100 U	50 U	25 U	1.0 U
Chlorobenzene	1,000	10,000	100 U	100 U	50 U	50 U	50 U	1.0 U	10 U	4.0 U	50 U	100 U	50 U	25 U	1.0 U
Chloroform	20,000	100,000	100 U	100 U	50 U	50 U	50 U	1.0 U	10 U	45	50 U	100 U	50 U	10 J	1.0 U
Chloromethane	NL	NL	200 U	200 U	100 U	100 U	100 U	1.0 J	20 U	400	100 U	60 J	100	50 U	2.0 U
Ethylbenzene	5,000	100,000	100 U	100 U	50 U	50 U	50 U	7.9	10 U	4.0 U	50 U	100 U	50 U	25 U	1.0 U
Methylene chloride	50,000	100,000	200 U	200 U	100 U	100 U	120 U	1.0 U	20 U	260	100 U	200 U	100 U	29 J	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	100 U	100 U	50 U	50 U	50 U	1.0 U	10 U	4.0 U	50 U	100 U	50 U	25 U	1.0 U
Toluene	40,000	100,000	38 J	40 J	44 J	20 J	19 J	28	18	4.0 U	50 U	100 U	50 U	25 U	1.0 U
Xylenes, m,p-	5,000	100,000	200 U	200 U	30 J	100 U	100 U	15	20 U	8.0 U	100 U	200 U	100 U	50 U	2.0 U
Xylene, o-	5,000	100,000	100 U	100 U	50 U	50 U	50 U	6.4	10 U	4.0 U	50 U	100 U	50 U	25 U	1.0 U
Metals, Total (ug/L)															
Chromium	300	3,000	95	---	**840**	15	120	**390**	---	---	4.2 J	---	47	34	3.4 J
Hexavalent Chromium	300	3,000	130	---	6.6	5.0 U	130	98	---	---	5.0 U	---	250 U	5.0 U	5.0 U
Iron	NL	NL	---	1700	---	2,600	---	1,500	---	---	---	430,000	---	94000	24,000
Metals, Dissolved (ug/L)															
Chromium	300	3,000	100	---	---	---			---	---	25 U	---	---	---	---
Iron	NL	NL	---	760	---	1,400			---	---	---	370,000	---	99000	---

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range

10 - Indicates value exceeds curr - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds curr - Indicates value exceeds current UCL.

Prepared by / Date: KJC 02/20/13

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved.

Checked by / Date: CTM 02/20/13

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (March 2011 - December 2012)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards		CLW-17 Mar-11	CLW-17 Nov-11	CLW-17 Mar-12	CLW-17 Aug-12	CLW-19 Mar-11	CLW-19 Nov-11	CLW-19 Mar-12	CLW-19 Aug-12	CLW-20 Mar-11	CLW-20 Nov-11	CLW-20 Mar-12	CLW-20 Aug-12	CLW-22 Mar-11	CLW-22 Nov-11	CLW-22 Mar-12	CLW-22 Aug-12
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)																
Chlorinated Ethenes (ug/L)																		
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	12	10	8.5	13	0.47 J	0.33 J	0.37 J	1.1	2.0	1.4	4.2	0.52 J	3.9	3.3	5.3	9.9
cis-1,2-Dichloroethene	50,000	100,000	1.2	0.98 J	0.94 J	1.9	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.71 J	1.0 U	1.0 U	1.0 U	0.46 J	0.91 J
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.5 U
Chlorinated Ethanes (ug/L)																		
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																		
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.20 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Metals (ug/L)																		
Chromium (Total)	300	3,000	51	---	43	56	20	---	17	23	1.3 J	---	3.0 J	1.3 J	20	---	12	29
Chromium (Hexavalent)	300	3,000	60	68	49	47	20	28	15	27	5.0 U	5.0 U	5.0 U	5.0 U	24	18	11	27

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (March 2011 - December 2012)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards		CLW-17B Mar-11	CLW-17B Nov-11	CLW-17B Mar-12	CLW-17B Aug-12	CLW-19B Mar-11	CLW-19B Nov-11	CLW-19B Mar-12	CLW-19B Aug-12	CLW-20B Mar-11	CLW-20B Nov-11	CLW-20B Mar-12	CLW-20B Aug-12	CLW-22B Mar-11	CLW-22B Nov-11	CLW-22B Mar-12	CLW-22B Aug-12
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)																
Chlorinated Ethenes (ug/L)																		
Tetrachloroethene	30,000	100,000	0.26 J	0.21 J	1.0 U	0.25 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	140	120	140	130	1.3	0.97 J	0.97 J	0.89 J	0.52 J	0.48 J	0.46 J	0.40 J	4.0	3.8	5.7	9.5
cis-1,2-Dichloroethene	50,000	100,000	25	22	29	26	0.27 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 J	0.48 J	0.93 J
trans-1,2-Dichloroethene	50,000	100,000	5.3	5.9	7.7	5.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	0.49 J	0.29 J	0.46 J	0.51 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	0.22 J	0.50 U	0.50 U	0.26 J	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chlorinated Ethanes (ug/L)																		
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	20,000	100,000	0.56 J	0.37 J	0.66 J	0.58 J	1.0 U	1.0 U	1.0 U	1.0 U	0.91 J	0.59 J	0.69 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																		
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	0.53 J	0.48 J	0.92 J	0.49 J	1.0 U	1.0 U	1.0 U	1.0 U	0.21 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Metals (ug/L)																		
Chromium (Total)	300	3,000	10	---	5.6	10	14	---	16	20	5.0 U	---	0.90 J	5.0 U	16	---	13	26
Chromium (Hexavalent)	300	3,000	11	7.2	5.0 U	5.5	17	48	11	28	5.0 U	5.0 U	5.0 U	5.0 U	16	32	17	31

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds cu - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds cu - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (March 2011 - December 2012)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards		PP-3 Mar-11	PP-3 Nov-11	PP-3 Mar-12	PP-3 Aug-12	PP-4A Mar-11	PP-4A Nov-11	PP-4A Mar-12	PP-4A Aug-12	PP-4B Mar-11	PP-4B Nov-11	PP-4B Mar-12	PP-4B Aug-12
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)												
Chlorinated Ethenes (ug/L)														
Tetrachloroethene	30,000	100,000	0.72 J	0.97 J	0.55 J	2.9	0.30 J	1.0 U	1.0 U	0.24 J	0.72 J	1.1	2.2	1.8 J
Trichloroethene (TCE)	5,000	50,000	68	200	58	1,100	80	53	40	27	140	200	500	630
cis-1,2-Dichloroethene	50,000	100,000	8.6	73	8.8	400	27	22	20	11	58	74	280	470
trans-1,2-Dichloroethene	50,000	100,000	0.50 J	2.8	0.81 J	9.2	1.6	1.6	1.5	0.84 J	0.20 J	0.56 J	3.2	3.2
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.35 J	1.5	1.9 J
Vinyl chloride	50,000	100,000	0.50 U	0.71	0.50 U	0.50 U	0.34 J	0.41 J	0.50 U	0.50 U	0.24 J	1.4	9.6	13
Chlorinated Ethanes (ug/L)														
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.50 U	0.29 J	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.32 J	2.0 U
Other VOCs (ug/L)														
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.6	0.40 J	0.56 J	1.0 U	0.22 J	0.30 J	2.0 U
Carbon disulfide	NL	NL	10 U	0.95 J	10 U	5.4 J	0.27 J	10 U	10 U	0.53 J	10 U	1.4 J	10 U	20 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	0.24 J	1.0 U	0.20 J	0.72 J	0.24 J	1.0 U	0.60 J	0.26 J	2.0 U
Chloromethane	NL	NL	2.0 U	0.49 J	2.0 U	2.0 U	3.9	1.0 J	0.67 J	2.0 U	0.42 J	1.1 J	2.0	1.1 J
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.22 J	2.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 J	1.0 U	0.23 J	2.0 U
Total Metals (ug/L)														
Chromium (Total)	300	3,000	**1,500**	**1,300**	**830**	270	**5,500**	**1,400**	**460**	13	5.0 U	10 U	3.0 J	5.0 U
Chromium (Hexavalent)	300	3,000	29	260	**440**	5.0 U	**6,600**	**1,200**	**640**	50 U	5.0 U	5.0 U	5.0 U	5.0 U

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Prepared by / Date: KJC 02/19/13

Checked by / Date: CTM 02/19/13

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (November 2011 - June 2013)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		CIW-1B	CIW-1B	CLW-1B	CIW-1B	CLW-5A	CLW-5A	CLW-5A	CLW-5B	CLW-5B	CLW-5B	CLW-5B	CLW-8	CLW-8	CLW-8	CLW-8
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Nov-11	Mar-12	Aug-12	Mar-13	Nov-11	Mar-12	Mar-13	Nov-11	Mar-12	Aug-12	Mar-13	Nov-11	Mar-12	Aug-12	Mar-13
Chlorinated Ethenes (ug/L)																	
Tetrachloroethene	30,000	100,000	32	28	19	12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	0.20 J	1.0 U
Trichloroethene (TCE)	5,000	50,000	1,500	1,100	630	450	5.5	1.2	0.67 J	40	1,800	1,200	520	6.6	9.1	31	49
cis-1,2-Dichloroethene	50,000	100,000	320	130	88	88	1.0 U	1.0 U	1.0 U	18	860	740	240	4.3	6.2	11	18
trans-1,2-Dichloroethene	50,000	100,000	4.0	1.9 J	2.5	10 U	1.0 U	1.0 U	1.0 U	0.32 J	9.8	9.2	7.6	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	3.9	2.6	2.1	10 U	1.0 U	1.0 U	1.0 U	0.35 J	11	14	2.4	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	170	53	44	37	0.50 U	0.50 U	1.0 U	4.2	370	240	69	0.53	0.85	1.2	0.5 U
Chlorinated Ethanes (ug/L)																	
Chloroethane	NL	NL	4.2	5.8	8.4	12 J	2.0 U	2.0 U	2.0 U	2.0 U	2.6	2.9 J	5.8	2.0 U	2.0 U	0.29 J	2.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	1.0 U	0.50 U	5.0 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	2.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.5 U
1,1,1-Trichloroethane	20,000	100,000	2.7	2.6	1.9	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	2.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	3.2	2.1	2.2	10 U	1.0 U	1.0 U	1.0 U	1.0 U	0.52 J	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	1.0 U	2.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																	
Benzene	10,000	100,000	1.0 U	2.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	0.67 J	10 U	100 U	10 U	0.50 J	10 U	10 U	0.32 J	50 U	10 U	2.1 J	10 U	10 U	10 U
Chlorobenzene	1,000	10,000	1.0 U	2.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	20,000	10,000	1.0 U	2.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	2.0 U	4.0 U	2.0 U	20 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	2.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.91 J
Methylene chloride	50,000	100,000	2.0 U	4.0 U	2.0 U	10 U	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	10 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	2.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	40,000	100,000	1.4	0.69 J	0.58 J	10 U	1.0 U	1.0 U	1.0 U	1.0 U	0.79 J	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	0.70 J	0.56 J	0.40 J	30 U	3.0 U	3.0 U	3.0 U	3.0 U	1.3	10 U	3.0 U	3.0 U	3.0 U	3.0 U	2.4
Total Metals (ug/L)																	
Chromium (Cr)	300	3,000	270	120	150	140	130	77	120	72	7.0	5.0 U	51	**380**	280	**650**	**310**
Chromium (Hexavalent)	300	3,000	5.0 U	5.0 U	5.0 U	5.0 U	75	74	110	62	5.6	5.0 U	29	**350**	**350**	**740**	300

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (November 2011 - June 2013)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		CLW-16B	CLW-16B	CLW-16B	CLW-16B	DMW-A	DMW-A	DMW-A	DMW-A	DMW-B	DMW-B	DMW-B	DMW-B	OSW-1A	OSW-1A	OSW-1A	OSW-1A
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Nov-11	Mar-12	Aug-12	Mar-13	Nov-11	Mar-12	Aug-12	Mar-13	Nov-11	Mar-12	Aug-12	Mar-13	Nov-11	Mar-12	Aug-12	Mar-13
Chlorinated Ethenes (ug/L)																		
Tetrachloroethene	30,000	100,000	2.1 J	3.2	6.1	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	3,000	3,000	**7,600**	**10,000**	6.5	19	5.4	16	43	24	27	44	1.6	3.8	58	3.6
cis-1,2-Dichloroethene	50,000	100,000	470	440	1,300	1,700	17	19	20	19	28	36	54	72	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	50,000	100,000	2.6 J	3.2	6.5	200 U	0.71 J	0.87 J	0.52 J	1.0 U	5.6	5.3	11	19	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	4.0 U	0.70 J	1.4	200 U	0.40 J	0.69 J	0.63 J	0.45 J	1.0 U	1.0 U	0.28 J	0.31 J	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	99	0.50 U	0.50 U	820	0.95	0.50 U	1.6	3.8	0.41 J	0.40 J	1.9	4.7	0.50 U	0.50 U	0.50 U	1.0 U
Chlorinated Ethanes (ug/L)																		
Chloroethane	NL	NL	8.0 U	2.0 U	2.0 U	400 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.41 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	2.0 U	0.20 J	0.28 J	100 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.7	0.5 U
1,1,1-Trichloroethane	20,000	100,000	4.0 U	1.0 U	1.0 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	4.0 U	1.0 U	1.0 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	4.0 U	1.0 U	1.0 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	4.0 U	1.0 U	1.0 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																		
Benzene	10,000	100,000	4.0 UJ	1.0 U	0.24 J	200 U	1.0 U	1.0 U	0.22 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	40 U	10 U	2.4 J	2000 U	2.0 J	10 U	10 U	10 U	1.3 J	10 U	10 U	10 U	10 U	10 U	0.70 J	10 U
Chlorobenzene	1,000	10,000	4.0 U	1.0 U	1.0 U	200 U	0.38 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	20,000	10,000	1.7 J	0.50 J	0.38 J	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.40 J	1.0 U
Chloromethane	NL	NL	8.0 U	2.0 U	2.0 U	400 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.2 J	2.0 U
Ethylbenzene	5,000	100,000	1.2 J	1.7	2.9	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	50,000	100,000	8.0 U	2.0 U	2.0 U	200 U	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	4.0 UJ	1.0 U	1.0 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	40,000	100,000	9.7 J	11	25	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	5.0 J	7.9	12.3	600 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Total Metals (ug/L)																		
Chromium (Cr)	300	3,000	**650**	**400**	250	110	5.0 U	4.2 J	1.5 J	3.3 J	5.0 U	1.4 J	5.0 U	2.1 J	160	150	**700**	**480**
Chromium (Hexavalent)	300	3,000	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	220	170	**830**	260

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (November 2011 - June 2013)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		OSW-1B	OSW-1B	OSW-1B	OSW-2B	OSW-2B	OSW-2B DUP	OSW-2B	OSW-2B	OSW-2B DUP	OSW-3A	OSW-3A	OSW-3A	OSW-3B	OSW-3B DUP	OSW-3B	OSW-3B	OSW-3B
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Mar-12	Aug-12	Mar-13	Nov-11	Mar-12	Mar-12	Aug-12	Mar-13	Mar-13	Nov-11	Mar-12	Mar-13	Nov-11	Nov-11	Mar-12	Aug-12	Mar-13
Chlorinated Ethenes (ug/L)																			
Tetrachloroethene	30,000	100,000	50 U	20 U	1.4 J	5.0 U	0.66 J	0.61 J	20 U	25 U	25 U	0.27 J	1.0 U	1.0 U	5.0 U	0.25 J	1.0 U	10 U	2.0 U
Trichloroethene (TCE)	5,000	50,000	**19,000**	**7,400**	**6,300**	980	1,100	1,100	**6,100**	1,100	1,200	34	26	71	26	35	130	84	130
cis-1,2-Dichloroethene	50,000	100,000	370	230	160	15	19	19	260	64	66	2.6	1.5	3.1	19 J	2.7 J	39	31	46
trans-1,2-Dichloroethene	50,000	100,000	50 U	9.6 J	11 J	5.0 U	1.0 U	1.0 U	20 U	25 U	25 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.6	2.2 J	2.0 U
1,1-Dichloroethene	30,000	100,000	50 U	20 U	1.0 UJ	5.0 U	1.0 U	1.0 U	20 U	25 U	25 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	2.0 U
Vinyl chloride	50,000	100,000	51	24	1.5 J	2.5 U	0.50 U	0.50 U	10 U	25 U	25 U	0.50 U	0.50 U	1.0 U	2.5 U	0.50 U	0.50 U	5.0 U	2.0 U
Chlorinated Ethanes (ug/L)																			
Chloroethane	NL	NL	100 U	40 U	0.99 J	10 U	2.0 U	2.0 U	40 U	50 U	50 U	2.0 U	2.0 U	2.0 U	10 U	2.0 U	2.0 U	20 U	4.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	25 U	7.1 J	2.9 J	2.5 U	0.50 U	0.50 U	10 U	13 U	13 U	0.50 U	0.50 U	0.5 U	2.5 U	0.50 U	0.50 U	5.0 U	1.0 U
1,1,1-Trichloroethane	20,000	100,000	50 U	20 U	1.0 UJ	5.0 U	1.0 U	1.0 U	20 U	25 U	25 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	2.0 U
1,1,2-Trichloroethane	50,000	100,000	50 U	20 U	0.74 J	5.0 U	1.0 U	1.0 U	20 U	25 U	25 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	2.0 U
1,1-Dichloroethane	20,000	100,000	50 U	20 U	1.0 UJ	5.0 U	1.0 U	1.0 U	20 U	25 U	25 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	2.0 U
1,2-Dichloroethane	20,000	100,000	50 U	20 U	5.9 J	5.0 U	1.0 U	1.0 U	20 U	25 U	25 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	2.0 U
Other VOCs (ug/L)																			
Benzene	10,000	100,000	50 U	20 U	1.0 UJ	5.0 U	1.0 U	1.0 U	20 U	25 U	25 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	2.0 U
Carbon disulfide	NL	NL	500 U	18 J	37 J	5.3 J	10 U	10 U	5.9 J	250 U	250 U	4.6 J	0.82 J	10 U	50 U	1.2 J	10 U	100 U	0.47 J
Chlorobenzene	1,000	10,000	50 U	20 U	1.0 UJ	5.0 U	1.0 U	1.0 U	20 U	25 U	25 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	2.0 U
Chloroform	20,000	10,000	50 U	20 U	3.5 J	5.0 U	0.41 J	0.42 J	20 U	25 U	25 U	1.0 U	1.0 U	1.0 U	1.9 J	1.0 U	0.77 J	10 U	2.0 U
Chloromethane	NL	NL	100 U	40 U	160	10 U	2.0 UJ	2.0 U	40 U	50 U	50 U	2.0 U	2.0 U	2.0 U	10 U	2.0 U	2.0 U	20 U	4.0 U
Ethylbenzene	5,000	100,000	50 U	20 U	1.0 UJ	5.0 U	0.31 J	0.30 J	20 U	25 U	25 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	2.0 U
Methylene chloride	50,000	100,000	100 U	42 U	70 J	10 U	2.0 U	2.0 U	29 J	25 U	25 U	2.0 U	2.0 U	1.0 U	10 U	2.0 U	2.0 U	20 U	2.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	50 U	20 U	1.0 UJ	5.0 U	1.0 U	1.0 U	20 U	25 U	25 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	2.0 U
Toluene	40,000	100,000	50 U	20 U	1.0 UJ	7.7	9.8	10	40	25 U	25 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	10 U	2.0 U
Xylenes (Total)	5,000	100,000	150 U	40 U	3.0 UJ	15 U	1.3 J	1.4 J	40 U	75 U	75 U	3.0 U	3.0 U	3.0 U	15 U	3.0 U	3.0 U	30 U	6.0 U
Total Metals (ug/L)																			
Chromium (Cr)	300	3,000	13	5.0 U	17	**740**	**980**	**1,400**	**740**	**360**	**390**	51	23	25	110 J	49 J	190	27	28
Chromium (Hexavalent)	300	3,000	5.0 U	5.0 U	500 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ	110 J	250 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (November 2011 - June 2013)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		OSW-4I	OSW-4I	OSW-4I	OSW-4I	OSW-7A	OSW-7A	OSW-7A	OSW-7A DUP	OSW-7A	PP-2	PP-2	PP-2	PP-2
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Nov-11	Mar-12	Aug-12	Mar-13	Nov-11	Mar-12	Aug-12	Aug-12	Mar-13	Nov-11	Mar-12	Aug-12	Mar-13
Chlorinated Ethenes (ug/L)															
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.36 J	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	41	75	69	130	30	16	76 J	75	16	38	33	33	130
cis-1,2-Dichloroethene	50,000	100,000	54	85	86	76	9.3	3.1	26	25	2.5	14	11	23	26
trans-1,2-Dichloroethene	50,000	100,000	1.2	0.95 J	0.74 J	1.0 U	1.0 U	1.0 U	0.20 J	1.0 U	1.0 U	0.83 J	0.48 J	0.60 J	1.0 U
1,1-Dichloroethene	30,000	100,000	0.40 J	1.2	1.1	1.4	0.23 J	1.0 U	0.44 J	0.34 J	1.0 U	1.0 U	0.20 J	0.74 J	0.62 J
Vinyl chloride	50,000	100,000	10	15	14	12	0.50 U	0.50 U	0.41 J	0.42 J	0.50 U	8.5	8.1	33	7.6
Chlorinated Ethanes (ug/L)															
Chloroethane	NL	NL	1.1 J	0.79 J	0.78 J	2.0 U	2.0 U	2.0 U	0.45 J	0.35 J	2.0 U	0.50 J	2.0 U	1.2 J	2.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.5 U
1,1,1-Trichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.25 J	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)															
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	1.1 J	0.81 J	1.8 J	10 U	10 U	0.20 J	1.6 J	0.97 J	0.52 J	10 U	10 U	10 U	10 U
Chlorobenzene	1,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	50,000	100,000	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	40,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Total Metals (ug/L)															
Chromium (Cr)	300	3,000	140	82	97	170	**510**	220	**680**	**680**	290	210	120	28	110
Chromium (Hexavalent)	300	3,000	92	5.0 U	5.0 U	120	**540**	230	**710**	**740**	280	5.0 U	5.0 U	25 U	14

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Prepared by / Date: HTS 08/13/13

Checked by / Date: CTM 08/15/13

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (November 2011 - June 2013)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards		CLW-17 Nov-11	CLW-17 Mar-12	CLW-17 Aug-12	CLW-17 Mar-13	CLW-17 DUP Mar-13	CLW-19 Nov-11	CLW-19 Mar-12	CLW-19 Aug-12	CLW-19 Mar-13	CLW-20 Nov-11	CLW-20 Mar-12	CLW-20 Aug-12	CLW-20 Mar-13
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)													
Chlorinated Ethenes (ug/L)															
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	10	8.5	13	12	11	0.33 J	0.37 J	1.1	1.0 U	1.4	4.2	0.52 J	1.6
cis-1,2-Dichloroethene	50,000	100,000	0.98 J	0.94 J	1.9	1.6	1.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.71 J	1.0 U	1.0 U
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	0.5 U	1.0 U
Chlorinated Ethanes (ug/L)															
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.5 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)															
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	0.20 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Metals (ug/L)															
Chromium (Total)	300	3,000	---	43	56	54	58	---	17	23	15	---	3.0 J	1.3 J	1.4 J
Chromium (Hexavalent)	300	3,000	68	49	47	51	52	28	15	27	15	5.0 U	5.0 U	5.0 U	5.0 U

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (November 2011 - June 2013)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards		CLW-22 Nov-11	CLW-22 Mar-12	CLW-22 Aug-12	CLW-22 Mar-13	CLW-17B Nov-11	CLW-17B Mar-12	CLW-17B Aug-12	CLW-17B Mar-13	CLW-19B Nov-11	CLW-19B Mar-12	CLW-19B Aug-12	CLW-19B Mar-13
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)												
Chlorinated Ethenes (ug/L)														
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	0.21 J	1.0 U	0.25 J	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	3.3	5.3	9.9	4.0	120	140	130	110	0.97 J	0.97 J	0.89 J	0.89 J
cis-1,2-Dichloroethene	50,000	100,000	1.0 U	0.46 J	0.91 J	1.0 U	22	29	26	20	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	5.9	7.7	5.8	5.3	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	0.29 J	0.46 J	0.51 J	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	0.50 U	0.50 U	0.5 U	1.0 U	0.50 U	0.50 U	0.26 J	2.0 U	0.50 U	0.50 U	0.5 U	1.0 U
Chlorinated Ethanes (ug/L)														
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U	0.5 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	0.37 J	0.66 J	0.58 J	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)														
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	0.48 J	0.92 J	0.49 J	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Metals (ug/L)														
Chromium (Total)	300	3,000	---	12	29	14	---	5.6	10	9.2	---	16	20	13
Chromium (Hexavalent)	300	3,000	18	11	27	12	7.2	5.0 U	5.5	7.1	48	11	28	13

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (November 2011 - June 2013)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards		CLW-20B Nov-11	CLW-20B Mar-12	CLW-20B Aug-12	CLW-20B Mar-13	CLW-20B DUP Mar-13	CLW-22B Nov-11	CLW-22B Mar-12	CLW-22B Aug-12	CLW-22B Mar-13	PP-3 Nov-11	PP-3 Mar-12	PP-3 Aug-12	PP-3 Mar-13
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)													
Chlorinated Ethenes (ug/L)															
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.97 J	0.55 J	2.9	2.0 U
Trichloroethene (TCE)	5,000	50,000	0.48 J	0.46 J	0.40 J	1.0 U	1.0 U	3.8	5.7	9.5	4.1	200	58	1,100	96
cis-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 J	0.48 J	0.93 J	1.0 U	73	8.8	400	13
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.8	0.81 J	9.2	2.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Vinyl chloride	50,000	100,000	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	0.71	0.50 U	0.50 U	2.0 U
Chlorinated Ethanes (ug/L)															
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	1 U
1,1-Dichloroethane	20,000	100,000	0.59 J	0.69 J	1.0 U	0.57 J	0.55 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Other VOCs (ug/L)															
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	0.95 J	10 U	5.4 J	20 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 J	2.0 U
Chloromethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	0.49 J	2.0 U	2.0 U	4.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Total Metals (ug/L)															
Chromium (Total)	300	3,000	---	0.90 J	5.0 U	5.0 U	5.0 U	---	13	26	14	**1,300**	**830**	270	**1,100**
Chromium (Hexavalent)	300	3,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	32	17	31	11	260	**440**	5.0 U	**1,100**

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (November 2011 - June 2013)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards		PP-4A Nov-11	PP-4A Mar-12	PP-4A Aug-12	PP-4A Mar-13	PP-4B Nov-11	PP-4B Mar-12	PP-4B Aug-12	PP-4B Mar-13
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)								
Chlorinated Ethenes (ug/L)										
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	0.24 J	1.0 U	1.1	2.2	1.8 J	0.46 J
Trichloroethene (TCE)	5,000	50,000	53	40	27	150	200	500	630	99
cis-1,2-Dichloroethene	50,000	100,000	22	20	11	13	74	280	470	59
trans-1,2-Dichloroethene	50,000	100,000	1.6	1.5	0.84 J	1.0 U	0.56 J	3.2	3.2	1.9
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	0.35 J	1.5	1.9 J	1.0 U
Vinyl chloride	50,000	100,000	0.41 J	0.50 U	0.50 U	1.0 U	1.4	9.6	13	1.3
Chlorinated Ethanes (ug/L)										
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	1.0 U	0.51
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.32 J	2.0 U	1.0 U
Other VOCs (ug/L)										
Benzene	10,000	100,000	1.6	0.40 J	0.56 J	1.0 U	0.22 J	0.30 J	2.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	0.53 J	10 U	1.4 J	10 U	20 U	8.7 J
Chloroform	20,000	10,000	0.20 J	0.72 J	0.24 J	1.0 U	0.60 J	0.26 J	2.0 U	6.6
Chloromethane	NL	NL	1.0 J	0.67 J	2.0 U	2.0 U	1.1 J	2	1.1 J	230
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.22 J	2.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.23 J	2.0 U	1.0 U
Total Metals (ug/L)										
Chromium (Total)	300	3,000	**1,400**	**460**	13	20	10 U	3.0 J	5.0 U	**2,300**
Chromium (Hexavalent)	300	3,000	**1,200**	**640**	50 U	5.0 U	5.0 U	5.0 U	5.0 U	**460**

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Prepared by / Date: HTS 08/13/13

Checked by / Date: CTM 08/15/13

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (March 2013 - June 2015)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		CIW-1B	CIW-1B	CIW-1B	CIW-1B	CIW-1B	CLW-5A	CLW-5A	CLW-5A	CLW-5B	CLW-5B	CLW-5B	CLW-5B	CLW-5B	CLW-8
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Mar-13	Sep-13	Apr-14	Sep-14	Apr-15	Mar-13	Apr-14	Apr-15	Mar-13	Sep-13	Apr-14	Sep-14	Apr-15	Mar-13
Chlorinated Ethenes (ug/L)																
Tetrachloroethene	30,000	100,000	12	8.2	16	14	3.2	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	0.37 J	5.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	450	340	620	590	440	0.67 J	9.6 U	0.62 J	520	350	95 U	270	210	49
cis-1,2-Dichloroethene	50,000	100,000	88	91	160	140	120	1.0 U	1.0 U	1.0 U	240	240	42	140	140	18
trans-1,2-Dichloroethene	50,000	100,000	10 U	6.3	6.8	9.3 J	15	1.0 U	1.0 U	1.0 U	7.6	8.0 U	2	6.5	5.3	1.0 U
1,1-Dichloroethene	30,000	100,000	10 U	5.0 U	2.0 J	10 U	1.1 J	1.0 U	1.0 U	1.0 U	2.4	3.0 J	1.1	3.2	2.5 J	1.0 U
Vinyl chloride	50,000	100,000	37	40	55	43	48	1.0 U	1.0 U	1.0 U	69	54	13	37	22	0.5 U
Chlorinated Ethanes (ug/L)																
Chloroethane	NL	NL	12 J	6.1 J	5.3 J	5.6 J	6.5	2.0 U	2.0 U	2.0 U	5.8	4.7 J	2.9	7.6	11	2.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	5.0 U	2.5 U	2.5 U	5.0 U	1.0 U	0.5 U	0.5 U	0.50 U	0.5 U	4.0 U	0.5 U	0.50 U	2.5 U	0.5 U
1,1,1-Trichloroethane	20,000	100,000	10 U	5.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	5.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	10 U	5.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	5.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	10 U	2.0 J	5.0 U	10 U	1.5 J	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	5.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	10 U	5.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	5.0 U	1.0 U
Other VOCs (ug/L)																
Benzene	10,000	100,000	10 U	5.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	5.0 U	1.0 U
Carbon disulfide	NL	NL	100 U	50 U	50 U	100 U	20 U	10 U	10 U	10 U	10 U	80 U	10 U	10 U	50 U	10 U
Chlorobenzene	1,000	10,000	10 U	5.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	5.0 U	1.0 U
Chloroform	20,000	10,000	10 U	5.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	5.0 U	1.0 U
Chloromethane	NL	NL	20 U	10 U	10 U	20 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	16 U	2.0 U	2.0 U	10 U	2.0 U
Ethylbenzene	5,000	100,000	10 U	5.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	5.0 U	0.91 J
Methylene chloride	50,000	100,000	10 U	5.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	0.72 J	5.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	10 U	5.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	5.0 U	1.0 U
Toluene	40,000	100,000	10 U	5.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0 U	1.0 U	1.0 U	5.0 U	1.0 U
Xylenes (Total)	5,000	100,000	30 U	15 U	15 U	30 U	6.0 U	3.0 U	3.0 U	3.0 U	3.0 U	24 U	3.0 U	3.0 U	15 U	2.4
Total Metals (ug/L)																
Chromium (Cr)	300	3,000	140	**340**	280	**760**	**450**	120	150	100	51	110	86	190	11	**310**
Chromium (Hexavalent)	300	3,000	5.0 U	5.0 U	5.0 U	5.0 U	7.0	110	140	110	29	5.0 U	48	5.0 U	5.0 U	300

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (March 2013 - June 2015)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		CLW-8	CLW-8	CLW-8	CLW-8	CLW-16B	CLW-16B	CLW-16B	CLW-16B	CLW-16B	DMW-A	DMW-A	DMW-A	DMW-A	DMW-A
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Sep-13	Apr-14	Sep-14	Apr-15	Mar-13	Sep-13	Apr-14	Sep-14	Apr-15	Mar-13	Sep-13	Apr-14	Sep-14	Apr-15
Chlorinated Ethenes (ug/L)																
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	200 U	200 U	25 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	45	20 U	43	27	**10,000**	**9,300**	2,100	**12,000**	**7,500**	16	13	13	14	70
cis-1,2-Dichloroethene	50,000	100,000	11	6.2 U	11	10	1,700	1,400	880	2,100	1,100	19	43	28	60	70
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	200 U	200 U	25 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	200 U	200 U	25 U	200 U	25 U	0.45 J	1	0.77 J	1.2	1.6
Vinyl chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	820	940	200	1,100	430	3.8	3.2	5.1	2.1	3.8
Chlorinated Ethanes (ug/L)																
Chloroethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	400 U	400 U	50 U	400 U	50 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.5 U	0.50 U	0.50 U	100 U	100 U	13 U	100 U	13 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	200 U	200 U	25 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	200 U	200 U	25 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	200 U	200 U	25 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	200 U	200 U	25 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	200 U	200 U	25 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	2,000 U	2,000 U	250 U	2,000 U	250 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	1,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	200 U	200 U	25 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	200 U	200 U	25 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	400 U	400 U	50 U	400 U	50 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	200 U	200 U	25 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	200 U	110 J	25 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	200 U	200 U	25 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	40,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	200 U	200 U	25 U	200 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	3.0 U	3.0 U	3.0 U	3.0 U	600 U	600 U	75 U	600 U	75 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Total Metals (ug/L)																
Chromium (Cr)	300	3,000	**860**	**460**	**1,100**	**410**	110	87.0	**37,000**	110	100	3.3 J	2.1 J	5.0 U	6.4	1.2 J
Chromium (Hexavalent)	300	3,000	**860**	**420**	**1,200**	**400**	5.0 U	5.0 U	5.0 U	10 UJ	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (March 2013 - June 2015)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		DMW-B Mar-13	DMW-B Sep-13	DMW-B Apr-14	DMW-B Sep-14	DMW-B Apr-15	OSW-1A Mar-13	OSW-1A Sep-13	OSW-1A DUP Sep-13	OSW-1A Apr-14	OSW-1A Sep-14	OSW-1A DUP Sep-14	OSW-1A Apr-15	OSW-1B Mar-13	OSW-1B Jun-13
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)														
Chlorinated Ethenes (ug/L)																
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 J	1.7
Trichloroethene (TCE)	5,000	50,000	44	27	72	19	110	3.6	44	43	3.9	22	22	5.2	**6,300**	**7600**
cis-1,2-Dichloroethene	50,000	100,000	72	53	110	74	160	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	160	230
trans-1,2-Dichloroethene	50,000	100,000	19	11	33	13	61	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	11 J	9.8
1,1-Dichloroethene	30,000	100,000	0.31 J	1.0 U	0.60 J	1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	0.73 J
Vinyl chloride	50,000	100,000	4.7	3.7	11	4.4	19	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.5 J	36
Chlorinated Ethanes (ug/L)																
Chloroethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.99 J	2.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.9 J	17
1,1,1-Trichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.74 J	0.4 J
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
1,2-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.9 J	2.8
Other VOCs (ug/L)																
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	37 J	35
Chlorobenzene	1,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.5 J	1.6
Chloromethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	160	92
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Methylene chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	70 J	34
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Toluene	40,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	0.81 J
Xylenes (Total)	5,000	100,000	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	300 U	3.0 U	3.0 U	3.0 U	3.0 UJ	3.0 U
Total Metals (ug/L)																
Chromium (Cr)	300	3,000	2.1 J	1.2 J	5.0 U	5.0 U	5.0 U	**480**	**440**	**470**	190	**710**	**660**	210	17	17
Chromium (Hexavalent)	300	3,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	260	**440**	**450**	180	**730**	**720**	220	5.0 U	5.0 U

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (March 2013 - June 2015)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-2B	OSW-2B DUP	OSW-2B	OSW-2B DUP	OSW-2B	OSW-2B DUP	OSW-2B	OSW-2B DUP	OSW-2B
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Sep-13	Dec-13	Apr-14	Jun-14	Sep-14	Apr-15	Mar-13	Mar-13	Sep-13	Sep-13	Apr-14	Apr-14	Sep-14	Sep-14	Apr-15
Chlorinated Ethenes (ug/L)																	
Tetrachloroethene	30,000	100,000	100 U	100 U	100 U	100 U	50 U	50 U	25 U	25 U	25 U	25 U	20 U	20 U	20 U	20 U	50 U
Trichloroethene (TCE)	5,000	50,000	**6,300**	4,200	**5,300**	**6,900**	3,300	**6,500**	1,100	1,200	**17,000 J**	**18,000**	950 J	990	**12,000**	**9,000**	3,000
cis-1,2-Dichloroethene	50,000	100,000	210	160	240	280	200	330	64	66	1,000	1,100	47	48	1,300	1,200	120
trans-1,2-Dichloroethene	50,000	100,000	100 U	100 U	100 U	100 U	50 U	50 U	25 U	25 U	250	270	20 U	20 U	770	730	46 J
1,1-Dichloroethene	30,000	100,000	100 U	100 U	100 U	100 U	50 U	50 U	25 U	25 U	25 U	25 U	20 U	20 U	20 U	20 U	50 U
Vinyl chloride	50,000	100,000	100 U	100 U	100 U	100 U	50 U	53	25 U	25 U	330	340	20 U	20 U	350	330	50 U
Chlorinated Ethanes (ug/L)																	
Chloroethane	NL	NL	200 U	200 U	200 U	200 U	100 U	100 U	50 U	50 U	50 U	50 U	40 U	40 U	40 U	40 U	100 U
1,1,2,2-Tetrachloroethane	50,000	100,000	50 U	50 U	50 U	50 U	25 U	25 U	13 U	13 U	13 U	13 U	10 U	10 U	10 U	10 U	25 U
1,1,1-Trichloroethane	20,000	100,000	100 U	100 U	100 U	100 U	50 U	50 U	25 U	25 U	25 U	25 U	20 U	20 U	20 U	20 U	50 U
1,1,2-Trichloroethane	50,000	100,000	100 U	100 U	100 U	100 U	50 U	50 U	25 U	25 U	25 U	25 U	20 U	20 U	20 U	20 U	50 U
1,1-Dichloroethane	20,000	100,000	100 U	100 U	100 U	100 U	50 U	50 U	25 U	25 U	25 U	25 U	20 U	20 U	20 U	20 U	50 U
1,2-Dichloroethane	20,000	100,000	100 U	100 U	100 U	100 U	50 U	50 U	25 U	25 U	25 U	25 U	20 U	20 U	20 U	20 U	50 U
Other VOCs (ug/L)																	
Benzene	10,000	100,000	100 U	100 U	100 U	100 U	50 U	50 U	25 U	25 U	25 U	25 U	20 U	20 U	20 U	20 U	50 U
Carbon disulfide	NL	NL	1,000 U	1,000 U	1,000 U	1,000 U	500 U	500 U	250 U	250 U	250 U	250 U	200 U	200 U	200 U	200 U	500 U
Chlorobenzene	1,000	10,000	100 U	100 U	100 U	100 U	50 U	50 U	25 U	25 U	25 U	25 U	20 U	20 U	20 U	20 U	50 U
Chloroform	20,000	10,000	100 U	100 U	100 U	100 U	50 U	50 U	25 U	25 U	25 U	25 U	20 U	20 U	20 U	20 U	50 U
Chloromethane	NL	NL	36 J	200 U	200 U	200 U	100 U	100 U	50 U	50 U	50 U	50 U	40 U	40 U	40 U	40 U	100 U
Ethylbenzene	5,000	100,000	100 U	100 U	100 U	100 U	50 U	50 U	25 U	25 U	25 U	25 U	20 U	20 U	20 U	20 U	50 U
Methylene chloride	50,000	100,000	100 U	100 U	100 U	67 J	50 U	50 U	25 U	25 U	25 U	25 U	20 U	20 U	20 U	20 U	50 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	100 U	100 U	100 U	100 U	50 U	50 U	25 U	25 U	25 U	25 U	20 U	20 U	20 U	20 U	50 U
Toluene	40,000	100,000	100 U	100 U	100 U	100 U	50 U	50 U	25 U	25 U	51	51	20 U	20 U	36	36	50 U
Xylenes (Total)	5,000	100,000	300 U	300 U	6.0 U	300 U	150 U	150 U	75 U	75 U	75 U	75 U	60 U	60 U	60 U	60 U	150 U
Total Metals (ug/L)																	
Chromium (Cr)	300	3,000	25	3.6 J	2.9 J	3.1 J	3.5 J	1.5 J	**360**	**390**	**180**	**180**	**520**	**470**	**410**	**410**	**630**
Chromium (Hexavalent)	300	3,000	50 U	5.0 U	5.0 UJ	50 U	5.0 U	5 U	5.0 UJ	110 J	5.0 U	5.0 U	150	160	5.0 U	5.0 U	72

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (March 2013 - June 2015)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		OSW-3A	OSW-3A	OSW-3A DUP	OSW-3A	OSW-3B	OSW-3B	OSW-3B	OSW-3B	OSW-3B	OSW-4I	OSW-4I	OSW-4I	OSW-4I	OSW-4I
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Mar-13	Apr-14	Apr-14	May-15	Mar-13	Sep-13	Apr-14	Sep-14	May-15	Mar-13	Sep-13	Apr-14	Sep-14	May-15
Chlorinated Ethenes (ug/L)																
Tetrachloroethene	30,000	100,000	1.0 U	0.39 J	0.41 J	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U	2.0 U
Trichloroethene (TCE)	5,000	50,000	71	110 J	120	55	130	80	310	190	100	130	120	390	460	600
cis-1,2-Dichloroethene	50,000	100,000	3.1	6.2 U	6.1 U	3.0	46	45	130	170	120	76	79	150	180	200
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	1.9 J	1.3	1.0 U	2.0 U	2.0 U	4.0 U	2.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.4	0.91 J	1.9 J	2.4 J	3.6
Vinyl chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.9	1.9	12	7.9	8.4	5.6	11
Chlorinated Ethanes (ug/L)																
Chloroethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	2.0 U	4.0 U	4.0 U	8.0 U	4.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	0.5 U	0.5 U	0.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	0.5 U	1.0 U	1.0 U	2.0 U	1.0 U
1,1,1-Trichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U	2.0 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U	2.0 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U	2.0 U
1,2-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U	2.0 U
Other VOCs (ug/L)																
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U	2.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	0.47 J	20 U	20 U	20 U	10 U	10 U	20 U	20 U	40 U	20 U
Chlorobenzene	1,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U	2.0 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U	2.0 U
Chloromethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	2.0 U	4.0 U	4.0 U	8.0 U	4.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U	2.0 U
Methylene chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U	2.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U	2.0 U
Toluene	40,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U	2.0 U
Xylenes (Total)	5,000	100,000	3.0 U	3.0 U	3.0 U	3.0 U	6.0 U	6.0 U	6.0 U	6.0 U	3.0 U	3.0 U	6.0 U	6.0 U	12 U	6.0 U
Total Metals (ug/L)																
Chromium (Cr)	300	3,000	25	4.0 J	4.1 J	5.5	28	120	19	40	5.1	170	160	160	170	240
Chromium (Hexavalent)	300	3,000	5.0 U	5.0 U	5.0 U	6.7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	120	0.055	120	91	210

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (March 2013 - June 2015)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		OSW-7A	OSW-7A	OSW-7A	OSW-7A	OSW-7A	OSW-7A DUP	PP-2	PP-2	PP-2	PP-2	PP-2
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Mar-13	Sep-13	Apr-14	Sep-14	Apr-15	Apr-15	Mar-13	Sep-13	Apr-14	Sep-14	May-15
Chlorinated Ethenes (ug/L)													
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	16	63	20	33	15 J	16	130	42	76	300	180
cis-1,2-Dichloroethene	50,000	100,000	2.5	12	3.0	4.0	2.5 J	2.4	26	37	41	200	31
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.6	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.62 J	1.1	1.3	7	0.59 J
Vinyl chloride	50,000	100,000	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.6	60	16	49	2.7
Chlorinated Ethanes (ug/L)													
Chloroethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.51 J	2.0 U	2.0 U	2.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)													
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	0.52 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	1,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	40,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Total Metals (ug/L)													
Chromium (Cr)	300	3,000	290	**640**	290	**560**	280	280	110	18	52	23	86
Chromium (Hexavalent)	300	3,000	280	**630**	280	**580**	260	260	14	5.0 U	5.0 UJ	5.0 U	85

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Prepared by / Date: HTS 07/28/15

Checked by / Date: CTM 07/29/15

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (March 2013 - June 2015)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards		CLW-17 Mar-13	CLW-17 DUP Mar-13	CLW-17 Sep-13	CLW-17 Apr-14	CLW-17 Sep-14	CLW-17 May-15	CLW-19 Mar-13	CLW-19 Sep-13	CLW-19 Apr-14	CLW-19 Sep-14	CLW-19 May-15	CLW-20 Mar-13	CLW-20 Sep-13	CLW-20 DUP Sep-13	CLW-20 Apr-14
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)															
Chlorinated Ethenes (ug/L)																	
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	12	11	12	14 U	12	9.2	1.0 U	1.4	0.80 J	2.7	0.60 J	1.6	1.1	1.1	1.6
cis-1,2-Dichloroethene	50,000	100,000	1.6	1.7	1.8	2.6 U	2.2	2.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorinated Ethanes (ug/L)																	
1,1,2,2-Tetrachloroethane	50,000	100,000	0.5 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																	
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	2.0 UJ	2.0 U	2.0 U		2.0 U	2.0 U	2.0 U	2.0 U	---	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	---
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Metals (ug/L)																	
Chromium (Total)	300	3,000	54	58	68	43	63	31	15	27	18	35	17	1.4 J	1.8 J	1.9 J	3.9 J
Chromium (Hexavalent)	300	3,000	51	52	67	40	68	33	15	25	17	33	17	5.0 U	5.0 U	5.0 U	5.0 U

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (March 2013 - June 2015)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards		CLW-20 Sep-14	CLW-20 May-15	CLW-20 DUP May-15	CLW-22 Mar-13	CLW-22 Sep-13	CLW-22 Apr-14	CLW-22 Sep-14	CLW-22 May-15	CLW-17B Mar-13	CLW-17B Sep-13	CLW-17B Apr-14	CLW-17B Sep-14	CLW-17B May-15	CLW-19B Mar-13	CLW-19B Sep-13
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)															
Chlorinated Ethenes (ug/L)																	
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	0.63 J	1.5	1.5	4.0	11	3.6	15	6.3	110	97	110	120	160	0.89 J	1.4
cis-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	0.99 J	1.0 U	1.7	1.0 U	20	19	24 U	26	34	1.0 U	1.0 U
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.3	4.4	5.7	6.3	8.9	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.42 J	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Chlorinated Ethanes (ug/L)																	
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.5 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	0.5 U	0.50 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.73 J	1.0 U	1.0 U
Other VOCs (ug/L)																	
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	0.31 J	10 U	10 U	10 U	10 U	0.25 J	10 U	10 U	20 U	20 U	20 U	20 U	10 U	10 U	10 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	---	2.0 U	2.0 U	4.0 U	4.0 U	---	4.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.52 J	1.0 U	1.0 U
Total Metals (ug/L)																	
Chromium (Total)	300	3,000	5.2	2.0 J	1.5 J	14	32	13	22	16	9.2	8.6	8.1	3.3 J	3.6 J	13	24
Chromium (Hexavalent)	300	3,000	5.0 U	5.0 U	5.0 U	12	33	14	17	17	7.1	5.0 U	6.8	5.0 U	5.0 U	13	20

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (March 2013 - June 2015)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards		CLW-19B Apr-14	CLW-19B Sep-14	CLW-19B DUP Sep-14	CLW-19B May-15	CLW-20B Mar-13	CLW-20B DUP Mar-13	CLW-20B Sep-13	CLW-20B Apr-14	CLW-20B DUP Apr-14	CLW-20B Sep-14	CLW-20B May-15	CLW-22B Mar-13	CLW-22B Sep-13	CLW-22B Apr-14	CLW-22B Sep-14
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)															
Chlorinated Ethenes (ug/L)																	
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	1.4	2.2	2.2	0.93 J	1.0 U	1.0 U	1.0 U	0.51 J	1.0 U	1.0 U	1.0 U	4.1	12	3.6	15
cis-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0	1.0 U	1.4
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorinated Ethanes (ug/L)																	
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.50 U	0.5 U	0.5 U	0.50 U	0.5 U	0.5 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	0.57 J	0.55 J	1.0 U	0.62 J	0.64 J	1.0 U	0.59 J	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																	
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	---	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	---	---	2.0 U	2.0 U	2.0 U	2.0 U	---	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Metals (ug/L)																	
Chromium (Total)	300	3,000	14	24	25	15	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.1 J	18	14	30	15	27
Chromium (Hexavalent)	300	3,000	13	25	25	13	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	11	27	13	28

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (March 2013 - June 2015)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards		CLW-22B May-15	PP-3 Mar-13	PP-3 Sep-13	PP-3 Apr-14	PP-3 Sep-14	PP-3 May-15	PP-4A Mar-13	PP-4A Sep-13	PP-4A Apr-14	PP-4A Sep-14	PP-4A May-15	PP-4B Mar-13	PP-4B Sep-13	PP-4B Apr-14	PP-4B Sep-14	PP-4B May-15
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)																
Chlorinated Ethenes (ug/L)																		
Tetrachloroethene	30,000	100,000	1.0 U	2.0 U	3.3	0.66 J	40 U	0.55 J	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	0.46 J	5.0 U	1.8 J	2.3 J	2.7 J
Trichloroethene (TCE)	5,000	50,000	6.6	96	2,500	65 U	3,900	120 J	150.0	66	150	96	180	99	400	380	890	840
cis-1,2-Dichloroethene	50,000	100,000	1.0 U	13	670	6.2 U	1,100	22	13	6.2	11	7.7	16	59	260	270	540	440
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	2.0 U	7.9	1.0 U	40 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.9	15	9.8	46	19
1,1-Dichloroethene	30,000	100,000	1.0 U	2.0 U	2.0 U	1.0 U	40 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	50,000	100,000	1.0 U	2.0 U	78	1.0 U	210	0.91 J	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.3	5.0 U	5.2	14	11
Chlorinated Ethanes (ug/L)																		
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	1.0 U	1.0 U	0.5 U	20 U	0.50 U	0.5 U	0.50 U	0.50 U	1.0 U	0.50 U	0.51	2.5 U	2.5 U	1.3 J	2.5 U
1,1-Dichloroethane	20,000	100,000	1.0 U	2.0 U	2.0 U	1.0 U	40 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Other VOCs (ug/L)																		
Benzene	10,000	100,000	1.0 U	2.0 U	2.0 U	1.0 U	40 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	NL	NL	10 U	20 U	20 U	0.29 J	400 U	10 U	10 U	10 U	10 U	20 U	10 U	8.7 J	47 J	50 U	24 J	4.6 J
Chloroform	20,000	10,000	1.0 U	2.0 U	2.0 U	1.0 U	40 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	6.6	3.9 J	5.0 U	1.7 J	5.0 U
Chloromethane	NL	NL	2.0 U	4.0 U	4.0 U	---	80 U	2.0 U	2.0 U	2.0 U	---	4.0 U	2.0 U	230	300	---	69	11
Ethylbenzene	5,000	100,000	1.0 U	2.0 U	2.0 U	1.0 U	40 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	2.0 U	2.0 U	1.0 U	40 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Total Metals (ug/L)																		
Chromium (Total)	300	3,000	5.0 U	**1,100**	**1,300**	**2,000**	**1,400**	**2,400**	20	3.4 J	15	11	10	**2,300**	**2,300 J**	**1,200**	**350**	**370**
Chromium (Hexavalent)	300	3,000	17	**1,100**	**1,200**	**1,900**	**1,400**	**2,300**	5.0 U	5.0 U	19	5.0 U	12	**460**	**1,400**	200	140	280

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Prepared by / Date: HTS 07/28/15

Checked by / Date: CTM 07/29/15

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (January 2015 - December 2016)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		CIW-1B	CIW-1B	CIW-1B	CIW-1B	CLW-5A	CLW-5A	CLW-5A	CLW-5B	CLW-5B	CLW-5B	CLW-5B	CLW-8	CLW-8	CLW-8	CLW-8 DUP	CLW-8
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Apr-15	Oct-15	Apr-16	Oct-16	Apr-15	Oct-15	Apr-16	Apr-15	Oct-15	Apr-16	Oct-16	Apr-15	Oct-15	Apr-16	Apr-16	Oct-16
Chlorinated Ethenes (ug/L)																		
Tetrachloroethene	30,000	100,000	3.2	18	10 U	10 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	0.43 J	1.0 U	1.0 U	0.63 J
Trichloroethene (TCE)	5,000	50,000	440	870	400	370	0.62 J	180	1.0 U	210	180	2.5	51	27	33	23	22	40
cis-1,2-Dichloroethene	50,000	100,000	120	170	140	140	1.0 U	32	1.0 U	140	110	1.1	36	10	6.6	7.0	7.0	9.3
trans-1,2-Dichloroethene	50,000	100,000	15	14	14	16	1.0 U	1.0 U	1.0 U	5.3	5.0 U	1.0 U	1.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.1 J	10 U	10 U	10 U	1.0 U	0.49 J	1.0 U	2.5 J	2.2 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	48	56	61	78	1.0 U	1.0 U	1.0 U	22	24	1.0 U	2.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorinated Ethanes (ug/L)																		
Chloroethane	NL	NL	6.5	5.7 J	4.9 J	20 U	2.0 U	2.0 U	2.0 U	11	5.0 J	2.0 U	0.36 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	1.0 U	5.0 U	5.0 U	5.0 U	0.50 U	0.50 U	0.50 U	2.5 U	2.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	20,000	100,000	2.0 U	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	2.0 U	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	1.5 J	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	2.0 U	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																		
Benzene	10,000	100,000	2.0 U	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	20 U	100 U	100 U	100 U	10 U	10 U	10 U	50 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	1,000	10,000	2.0 U	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	20,000	10,000	2.0 U	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	4.0 U	20 U	20 U	20 U	2.0 U	2.0 U	2.0 U	10 U	10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	2.0 U	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	50,000	100,000	2.0 U	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	5.0 U	2.7 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	2.0 U	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	40,000	100,000	2.0 U	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	6.0 U	30 U	30 U	30 U	3.0 U	3.0 U	3.0 U	15 U	15 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Total Metals (ug/L)																		
Chromium (Cr)	300	3,000	**450**	**930**	**510**	**750**	100	210	100	11	37	75	69	**410**	**1,200**	**610**	**640**	**1,400**
Chromium (Hexavalent)	300	3,000	7.0	5.0 U	5 U	**680**	110	160	94	5.0 U	25 U	55	64	**400**	**1,300**	**550**	**560**	**1,400**

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (January 2015 - December 2016)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		CLW-16B	CLW-16B	CLW-16B	CLW-16B	DMW-A	DMW-A	DMW-A	DMW-A	DMW-B	DMW-B	DMW-B	DMW-B	OSW-1A	OSW-1A	OSW-1A	OSW-1A
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Apr-15	Oct-15	Apr-16	Oct-16	Apr-15	Oct-15	Apr-16	Oct-16	Apr-15	Oct-15	Apr-16	Oct-16	Apr-15	Oct-15	Apr-16	Oct-16
Chlorinated Ethenes (ug/L)																		
Tetrachloroethene	30,000	100,000	25 U	100 U	100 U	100 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	**7,500**	**8,700**	**7,900**	**5,600**	70	19	22	4.7	110	16	51	14	5.2	8.4	1.9	4.1
cis-1,2-Dichloroethene	50,000	100,000	1,100	1,300	1,300	1,300	70	60	42	36	160	66	110	69	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	50,000	100,000	25 U	100 U	100 U	100 U	1.0 U	1.0 U	1.0 U	1.0 U	61	12	32	9.8	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	25 U	100 U	100 U	100 U	1.6	1.3	0.87 J	0.53 J	1.1	2.0 U	0.58 J	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	430	520	540	250	3.8	3.0	2.6	1.1	19	5.2	13	5.6	1.0 U	1.0 U	1.0 U	1.0 U
Chlorinated Ethanes (ug/L)																		
Chloroethane	NL	NL	50 U	200 U	200 U	200 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	13 U	50 U	50 U	50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	20,000	100,000	25 U	100 U	100 U	100 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	25 U	100 U	100 U	100 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	25 U	100 U	100 U	100 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	25 U	100 U	100 U	100 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																		
Benzene	10,000	100,000	25 U	100 U	100 U	100 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	250 U	1,000 U	1000 U	1,000 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U	10 U	10 U	10 U
Chlorobenzene	1,000	10,000	25 U	100 U	100 U	100 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	20,000	10,000	25 U	100 U	100 U	100 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	50 U	200 U	200 U	200 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	25 U	100 U	100 U	100 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	50,000	100,000	25 U	100 U	100 U	100 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	25 U	100 U	100 U	100 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	40,000	100,000	25 U	100 U	100 U	100 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	75 U	300 U	300 U	300 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	6.0 U	3.0 U	6.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Total Metals (ug/L)																		
Chromium (Cr)	300	3,000	100	280	130	200	1.2 J	1.7 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	210	**360**	170	**320**
Chromium (Hexavalent)	300	3,000	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 U	5 UJ	5 UJ	5.0 U	5.0 U	5 U	5 U	220	250	150	5 UJ

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (January 2015 - December 2016)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-2B	OSW-2B	OSW-2B	OSW-2B	OSW-3A	OSW-3A	OSW-3A	OSW-3B	OSW-3B	OSW-3B	OSW-3B
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Apr-15	Oct-15	Apr-16	Oct-16	Apr-15	Oct-15	Apr-16	Oct-16	May-15	Oct-15	Apr-16	May-15	Oct-15	Apr-16	Oct-16
Chlorinated Ethenes (ug/L)																	
Tetrachloroethene	30,000	100,000	50 U	100 U	10 U	100 U	50 U	50 U	1.0 U	50 U	1.0 U	0.63 J	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Trichloroethene (TCE)	5,000	50,000	**6,500**	2,500	4,000	2,300	3,000	**16,000**	2,300	**10,000**	55	660	89	100	120	180	200
cis-1,2-Dichloroethene	50,000	100,000	330	210	250	280	120	1,400	160	680	3.0	43	5.8	120	110	100	110
trans-1,2-Dichloroethene	50,000	100,000	50 U	100 U	10 U	100 U	46 J	1,200	83	740	1.0 U	1.0 U	1.0 U	1.3	4.0 U	4.0 U	4.0 U
1,1-Dichloroethene	30,000	100,000	50 U	100 U	10 U	100 U	50 U	50 U	0.32 J	50 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Vinyl chloride	50,000	100,000	53	100 U	48	100 U	50 U	250	47	150	1.0 U	0.96 J	1.0 U	1.9	4.0 U	4.0 U	4.0 U
Chlorinated Ethanes (ug/L)																	
Chloroethane	NL	NL	100 U	200 U	20 U	200 U	100 U	100 U	2.0 U	100 U	2.0 U	2.0 U	2.0 U	2.0 U	8.0 U	8.0 U	8.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	25 U	50 U	5.0 U	50 U	25 U	25 U	0.50 U	25 U	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	2.0 U	2.0 U
1,1,1-Trichloroethane	20,000	100,000	50 U	100 U	10 U	100 U	50 U	50 U	1.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
1,1,2-Trichloroethane	50,000	100,000	50 U	100 U	10 U	100 U	50 U	50 U	1.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane	20,000	100,000	50 U	100 U	10 U	100 U	50 U	50 U	1.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
1,2-Dichloroethane	20,000	100,000	50 U	100 U	10 U	100 U	50 U	50 U	1.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Other VOCs (ug/L)																	
Benzene	10,000	100,000	50 U	100 U	10 U	100 U	50 U	50 U	1.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Carbon disulfide	NL	NL	500 U	1,000 U	100 U	1,000 U	500 U	500 U	10 U	500 U	10 U	10 U	10 U	10 U	40 U	40 U	40 U
Chlorobenzene	1,000	10,000	50 U	100 U	10 U	100 U	50 U	50 U	1.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Chloroform	20,000	10,000	50 U	100 U	10 U	100 U	50 U	50 U	1.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Chloromethane	NL	NL	100 U	200 U	20 U	200 U	100 U	100 U	2.0 U	100 U	2.0 U	2.0 U	2.0 U	2.0 U	8.0 U	8.0 U	8.0 U
Ethylbenzene	5,000	100,000	50 U	100 U	10 U	100 U	50 U	50 U	1.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Methylene chloride	50,000	100,000	50 U	100 U	10 U	100 U	50 U	50 U	1.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	50 U	100 U	10 U	100 U	50 U	50 U	1.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Toluene	40,000	100,000	50 U	100 U	10 U	100 U	50 U	37 J	3.1	50 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Xylenes (Total)	5,000	100,000	150 U	300 U	30 U	300 U	150 U	150 U	3.0 U	150 U	3.0 U	3.0 U	3.0 U	3.0 U	12 U	12.0 U	12.0 U
Total Metals (ug/L)																	
Chromium (Cr)	300	3,000	1.5 J	2.6 J	1.0 J	1.7 J	**630**	**1,600**	**890**	**640**	5.5	2.7 J	7.9	5.1	13	2.7 J	6.9
Chromium (Hexavalent)	300	3,000	5.0 U	5 UJ	5 U	5 U	72	250 U	37 J	5.3 J	6.7	5.0 U	5 U	5.0 U	5.0 U	5 U	5 U

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (January 2015 - December 2016)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		OSW-4I	OSW-4I	OSW-4I	OSW-4I	OSW-7A	OSW-7A DUP	OSW-7A	OSW-7A	OSW-7A DUP	OSW-7A	PP-2	PP-2	PP-2	PP-2
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	May-15	Oct-15	Apr-16	Oct-16	Apr-15	Apr-15	Oct-15	Apr-16	Apr-16	Oct-16	May-15	Oct-15	Apr-16	Oct-16
Chlorinated Ethenes (ug/L)																
Tetrachloroethene	30,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.40 J	1.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene (TCE)	5,000	50,000	600	330	520	320	15 J	16	16	9.8	9.6	19	180	190	150	220
cis-1,2-Dichloroethene	50,000	100,000	200	120	150	120	2.5 J	2.4	2.1	2.4	2.2	1.4	31	170	79	170
trans-1,2-Dichloroethene	50,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	30,000	100,000	3.6	8.0 U	2.7 J	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.59 J	3.5 J	2.1 J	3.3 J
Vinyl chloride	50,000	100,000	11	8.0 U	7.2 J	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.7	33	19	29
Chlorinated Ethanes (ug/L)																
Chloroethane	NL	NL	4.0 U	16 U	16 U	16 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	50,000	100,000	1.0 U	4.0 U	4.0 U	4.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	20,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	50,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	20,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	20,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Other VOCs (ug/L)																
Benzene	10,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	NL	NL	20 U	80 U	80 U	80 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	50 U	50 U
Chlorobenzene	1,000	10,000	2.0 U	8.0 U	8.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Chloroform	20,000	10,000	2.0 U	8.0 U	8.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	NL	NL	4.0 U	16 U	16 U	16 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	10 U	10 U
Ethylbenzene	5,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	50,000	100,000	2.0 U	8.0 U	4.0 J	3.7 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	2.7 J	5.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Toluene	40,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Xylenes (Total)	5,000	100,000	6.0 U	24 U	24.0 U	24.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	15 U	15.0 U	15.0 U
Total Metals (ug/L)																
Chromium (Cr)	300	3,000	240	220	**350**	130	280	280	**490**	270	280	**410**	86	160	65	30
Chromium (Hexavalent)	300	3,000	210	110	200	120	260	260	**400**	260	260	**440**	85	5.0 U	5 U	150

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value is rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Prepared by / Date: HTS 01/12/17

Checked by / Date: CTM 01/18/17

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (January 2015 - December 2016)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards		CLW-17 May-15	CLW-17 Oct-15	CLW-17 Apr-16	CLW-17 Oct-16	CLW-17B May-15	CLW-17B Oct-15	CLW-17B Apr-16	CLW-17B Oct-16	CLW-19 May-15	CLW-19 Oct-15	CLW-19 DUP Oct-15	CLW-19 Apr-16	CLW-19 Oct-16	CLW-19B May-15	CLW-19B Oct-15	CLW-19B Apr-16	CLW-19B Oct-16
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)																	
Chlorinated Ethenes (ug/L)																			
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	9.2	12	7.3	14	160	130	110	110	0.60 J	3.6	3.1	0.64 J	4.0	0.93 J	2.7	1.5	3.8
cis-1,2-Dichloroethene	50,000	100,000	2.0	2.1	1.4	3.0	34	27	23	26	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	8.9	7.7	6.5	6.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	0.42 J	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorinated Ethanes (ug/L)																			
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0,.50 U	0.50 U	0.50 U	1.0 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	0.73 J	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																			
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	10 U	20 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	2.0 U	2.0 U			2.0 U	4.0 U			2.0 U	2.0 U	2.0 U			2.0 U	2.0 U		
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	0.52 J	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Metals (ug/L)																			
Chromium (Total)	300	3,000	31	60	48	62	3.6 J	4.4 J	5.7	5.0 U	17	32	32	19	31	15	24	14	25
Chromium (Hexavalent)	300	3,000	33	64	52	65	5.0 U	5.0 U	5 U	10 U	17	32	32	19	42	13	25	10	33

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (January 2015 - December 2016)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards		CLW-20 May-15	CLW-20 DUP May-15	CLW-20 Oct-15	CLW-20 Apr-16	CLW-20 Oct-16	CLW-20B May-15	CLW-20B Oct-15	CLW-20B Apr-16	CLW-20B Oct-16	CLW-22 May-15	CLW-22 Oct-15	CLW-22 Apr-16	CLW-22 Oct-16	CLW-22B May-15	CLW-22B Oct-15	CLW-22B Apr-16	CLW-22B Oct-16
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)																	
Chlorinated Ethenes (ug/L)																			
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	1.5	1.5	2.4	1.9	0.58 J	1.0 U	1.0 U	1.0 U	1.0 U	6.3	14	6.6	15	6.6	14	5.3	15
cis-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.7	1.0 U	1.9	1.0 U	1.7	1.0 U	1.8
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorinated Ethanes (ug/L)																			
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.59 J	1.0 U	0.53 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																			
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	2.0 U	2.0 U	2.0 U			2.0 U	2.0 U			2.0 U	2.0 U			2.0 U	2.0 U		
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Metals (ug/L)																			
Chromium (Total)	300	3,000	2.0 J	1.5 J	3.5 J	2.0 J	5.0 U	18	5.0 U	5.0 U	5.0 U	16	32	16	20	5.0 U	31	15	24
Chromium (Hexavalent)	300	3,000	5.0 U	5.0 U	5.0 U	5 U	5 UJ	5.0 U	5.0 U	5 U	5.7 J	17	32	12	22	17	30	6.1 J	31

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (January 2015 - December 2016)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards		PP-3 May-15	PP-3 Oct-15	PP-3 Apr-16	PP-3 DUP Apr-16	PP-3 Oct-16	PP-4A May-15	PP-4A Oct-15	PP-4A Apr-16	PP-4A Oct-16	PP-4A DUP Oct-16	PP-4B May-15	PP-4B Oct-15	PP-4B Apr-16	PP-4B Oct-16
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)														
Chlorinated Ethenes (ug/L)																
Tetrachloroethene	30,000	100,000	0.55 J	4.2	0.83 J	5.0 U	4.9 J	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	2.7 J	20 U	2.1	1.8 J
Trichloroethene (TCE)	5,000	50,000	120 J	**5,300**	400 J	560 J	**8,300**	180	120	190	130 J	130 J	840	610	590	530
cis-1,2-Dichloroethene	50,000	100,000	22	1,100	91	110	1,400	16	12	15	13	14	440	400	400	370
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	8.9	1.0 U	5.0 U	10 U	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	19	20 U	13	14
1,1-Dichloroethene	30,000	100,000	1.0 U	1.6 J	1.0 U	5.0 U	10 U	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	5.0 U	20 U	0.85 J	0.76 J
Vinyl chloride	50,000	100,000	0.91 J	260	18	19	440	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	11	20 U	8.8	3.0
Chlorinated Ethanes (ug/L)																
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	2.0 U	0.50 U	2.5 U	5.0 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U	2.5 U	10 U	0.50 U	1.0 U
1,1-Dichloroethane	20,000	100,000	1.0 U	4.0 U	1.0 U	5.0 U	10 U	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	5.0 U	20 U	1.0 U	2.0 U
Other VOCs (ug/L)																
Benzene	10,000	100,000	1.0 U	4.0 U	1.0 U	5.0 U	10 U	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	5.0 U	20 U	1.0 U	2.0 U
Carbon disulfide	NL	NL	10 U	40 U	10 U	50 U	100 U	10 U	20 U	10 U	20 U	20 U	4.6 J	200 U	0.48 J	1.6 J
Chloroform	20,000	10,000	1.0 U	4.0 U	0.36 J	5.0 U	10 U	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	5.0 U	20 U	1.0 U	2.0 U
Chloromethane	NL	NL	2.0 U	8.0 U				2.0 U	4.0 U				11	20 J		
Ethylbenzene	5,000	100,000	1.0 U	4.0 U	1.0 U	5.0 U	10 U	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	5.0 U	20 U	1.0 U	2.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	4.0 U	1.0 U	5.0 U	10 U	1.0 U	2.0 U	1.0 U	2.0 U	2.0 U	5.0 U	20 U	1.0 U	2.0 U
Total Metals (ug/L)																
Chromium (Total)	300	3,000	**2,400**	**1,200**	**1,700**	**1,700**	**1,000**	10	5.8	27	8.9	7.8	**370**	**320**	140	130
Chromium (Hexavalent)	300	3,000	**2,300**	**1,300**	**1,600**	**1,700**	**970**	12	5.0 U	26	5 U	10 U	280	280	110	98

Notes:

(1) Compounds detected in groundwater after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Prepared by / Date: HTS 01/12/17
Checked by / Date: CTM 0/18/17

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (September 2019 – December 2021)
Conductorlab Site, Groton, Massachusetts

	MCP Method 1 GW Standards[1]																					
Parameter	GW-3 MCP	UCL GW MCP	CIW-1B	CIW-1B	CIW-1B	CIW-1B	CLW-5A	CLW-5A DUP	CLW-5A	CLW-5A DUP	CLW-5B	CLW-5B	CLW-5B	CLW-5B	CLW-7A	CLW-7A	CLW-7A	CLW-7A	CLW-7A	CLW-7A	CLW-7A	CLW-7A
	(ug/L)	(ug/L)	Sep-19	Apr-20	Oct-20	Apr-21	Mar-20	Mar-20	Apr-21	Apr-21	Sep-19	Mar-20	Sep-20	Apr-21	Jul-20	Jul-20	Jul-20	Sep-20	Dec-20	Apr-21	Jun-21	Sep-21
Chlorinated Ethenes (ug/L)																						
Tetrachloroethene	30,000	100,000	11 J	27	7.5 J	13 J	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---	---
Trichloroethene (TCE)	5,000	50,000	930	1,900	1,100	1,000	0.78 J+	0.80 J	0.58 J	0.72 J	340	15	290	41	---	---	---	---	---	---	---	---
cis-1,2-Dichloroethene	50,000	100,000	210	320	270	180	1.0 U	1.0 U	1.0 U	1.0 U	160	1.9	200	13	---	---	---	---	---	---	---	---
trans-1,2-Dichloroethene	50,000	100,000	31	48	41	23	1.0 U	1.0 U	1.0 U	1.0 U	10	1.0 U	12	1.4	---	---	---	---	---	---	---	---
1,1-Dichloroethene	30,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	3.3	1.0 U	---	---	---	---	---	---	---	---
Vinyl chloride	50,000	100,000	95	120	190	70	1.0 U	1.0 U	1.0 U	1.0 U	11	1.0 U	16	1.0 U	---	---	---	---	---	---	---	---
Chlorinated Ethanes (ug/L)																						
Chloroethane	NL	NL	40 U	40 U	40 U	40 UJ	2.0 U	2.0 U	2.0 U	2.0 U	7.6 J	2.0 U	6.9	2.0 U	---	---	---	---	---	---	---	---
1,1,2,2-Tetrachloroethane	50,000	100,000	10 U	10 U	10 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	5.0 U	0.50 U	0.50 U	0.50 U	---	---	---	---	---	---	---	---
1,1,1-Trichloroethane	20,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---	---
1,1,2-Trichloroethane	50,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---	---
1,1-Dichloroethane	20,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---	---
1,2-Dichloroethane	20,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---	---
Other VOCs (ug/L)																						
Benzene	10,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---	---
Carbon disulfide	NL	NL	200 U	200 U	200 U	200 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U	---	---	---	---	---	---	---	---
Chlorobenzene	1,000	10,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---	---
Chloroform	20,000	10,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---	---
Chloromethane	NL	NL	40 U	40 U	40 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	2.0 U	2.0 U	2.0 U	---	---	---	---	---	---	---	---
Ethylbenzene	5,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---	---
Methylene chloride	50,000	100,000	20 U	20 U	9.2 J	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	0.70 J	1.0 U	---	---	---	---	---	---	---	---
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---	---
Toluene	40,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---	---
Xylenes (Total)	5,000	100,000	60 U	60 U	60 U	60 U	3.0 U	3.0 U	3.0 U	3.0 U	30 U	3.0 U	3.0 U	3.0 U						---	---	---
Total Metals (ug/L)																						
Chromium (Cr)	300	3,000	280	8.3	51	24	80	79	99	65	16	79	9.0	97	1.1 J	3.9 J	2.0 J	1.1 J	1.5 J	1.0 J	5.0 U	5.0 U
Chromium (Hexavalent)	300	3,000	10 UJ	10 U	23	10 U	73	79	78	11	10 UJ	77	10 U	78	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (September 2019 – December 2021)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards[1] GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	CLW-8 Mar-19	CLW-8 Sep-19	CLW-8 Mar-20	CLW-8 Jun-20	CLW-8 Jul-20	CLW-8 Jul-20	CLW-8 Oct-20	CLW-8 Dec-20	CLW-8 Jan-21	CLW-8 Apr-21	CLW-8 Jun-21	CLW-8 Sep-21	CLW-16B Mar-19	CLW-16B Sep-19	CLW-16B Apr-20	CLW-16B Oct-20	CLW-16B Apr-21	DMW-A Sep-19	DMW-A Mar-20	DMW-A Sep-20	DMW-A Apr-21	DMW-B Sep-19	DMW-B Mar-20	DMW-B Sep-20	DMW-B Apr-21
Chlorinated Ethenes (ug/L)																											
Tetrachloroethene	30,000	100,000	1.0 U	0.43 J	1.0 U	---	---	---	1.0 U	---	---	1.0 U	---	---	1.0 U	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Trichloroethene (TCE)	5,000	50,000	16	37	28	---	---	---	11	---	---	11	---	---	1,700	**8,700**	2,700	**14,000**	4,900	1.1	4.0	2.8	5.0	21	51	13	34
cis-1,2-Dichloroethene	50,000	100,000	8.2	5.2	8.7	---	---	---	6.5	---	---	3.7	---	---	330	2,100	520	2,900	480	10	11	16	16	69	160	83	130
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	---	---	---	1.0 U	---	---	1.0 U	---	---	66	430	120 J	560	200 U	1.0 U	1.0 U	1.0 U	1.0 U	17	47	18	29
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	---	---	---	1.0 U	---	---	1.0 U	---	---	1.0 U	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	0.35 J	4.0 U	4.0 U	4.0 U
Vinyl chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	---	---	---	1.0 U	---	---	1.0 U	---	---	39	780	130 U	790 J	200 U	1.0 U	1.0 U	1.2	1.0	4.7	12	8.5	4.0
Chlorinated Ethanes (ug/L)																											
Chloroethane	NL	NL	2.0 U	2.0 U	2.0 U	---	---	---	2.0 U	---	---	2.0 U	---	---	2.0 U	100 U	250 U	250 UJ	400 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	8.0 U	8.0 U	8.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	---	---	---	0.50 U	---	---	0.50 U	---	---	0.50 U	25 U	63 U	63 U	100 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	2.0 U	2.0 U
1,1,1-Trichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	---	---	---	1.0 U	---	---	1.0 U	---	---	1.0 U	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	1.0 U	1.0 U	---	---	---	1.0 U	---	---	1.0 U	---	---	1.0 U	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	---	---	---	1.0 U	---	---	1.0 U	---	---	1.0 U	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
1,2-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	---	---	---	1.0 U	---	---	1.0 U	---	---	1.0 U	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Other VOCs (ug/L)																											
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	---	---	---	1.0 U	---	---	1.0 U	---	---	1.0 U	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	---	---	---	10 U	---	---	10 U	---	---	10 U	500 U	1,300 U	1,300 U	2,000 U	10 U	10 U	10 U	10 U	10 U	40 U	40 U	40 U
Chlorobenzene	1,000	10,000	1.0 U	1.0 U	1.0 U	---	---	---	1.0 U	---	---	1.0 U	---	---	1.0 U	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	---	---	---	1.0 U	---	---	1.0 U	---	---	1.0 U	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Chloromethane	NL	NL	2.0 U	2.0 U	2.0 U	---	---	---	2.0 U	---	---	2.0 U	---	---	2.0 U	100 U	250 U	250 U	400 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	8.0 U	8.0 U	8.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	---	---	---	1.0 U	---	---	1.0 U	---	---	1.0 U	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Methylene chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	---	---	---	1.0 U	---	---	1.0 U	---	---	1.0 U	50 U	63 J	130 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 J	4.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	---	---	---	1.0 U	---	---	1.0 U	---	---	1.0 U	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Toluene	40,000	100,000	1.0 U	1.0 U	1.0 U	---	---	---	1.0 U	---	---	1.0 U	---	---	0.71 J	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U
Xylenes (Total)	5,000	100,000	3.0 U	3.0 U	3.0 U	---			3.0 U			3.0 U	---	---	3.0 U	150 U	380 U	280 U	600 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	12 U	12.0 U	12 U
Total Metals (ug/L)																											
Chromium (Cr)	300	3,000	190	**1,000**	**330**	**690**	**390**	**520**	130	19	130	---	160	210	190	5.2	6.1	8.5	7.8	5.7	1.4 J	5.0 U	1.0 J	5.0 U	5.0 U	5.0 U	5.0 U
Chromium (Hexavalent)	300	3,000	190	**890 J**	250	**460**	**380 J-**	**450**	98	25	110 J	130	120	200	290	10 U	10 U	10 U	35	10 U	10 R	10 U	10 U	10 U	10 R	5.4 J	10 U	10 U

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (September 2019 – December 2021)
Conductorlab Site, Groton, Massachusetts

	MCP Method 1 GW Standards[1]																
Parameter	GW-3 MCP	UCL GW MCP	OSW-1A	OSW-1A	OSW-1A	OSW-1A	OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-2B	OSW-2B	OSW-2B	OSW-2B	OSW-3A	OSW-3A	OSW-3A
	(ug/L)	(ug/L)	Sep-19	Mar-20	Oct-20	Apr-21	Sep-19	Mar-20	Sep-20	Apr-21	Sep-19	Mar-20	Oct-20	Apr-21	Sep-19	Mar-20	Apr-21
Chlorinated Ethenes (ug/L)																	
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	7.3	3.4	3.9	2.9	2,100	3,900	1,400	520	**9,300**	830	2,800	1,200	91	30	20
cis-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	200	370	200	95	800	27	260	64	13	1.7	0.84 J
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	22	15	1,100	36	1,100	62	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	100 U	58	21	10 U	190	10 U	130 U	18 J	1.0 U	1.0 U	1.0 U
Chlorinated Ethanes (ug/L)																	
Chloroethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 UJ	200 U	100 U	40 U	20 UJ	16 U	20 U	250 U	40 UJ	2.0 U	2.0 U	2.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.50 U	50 U	25 U	10 U	5.0 U	4.0 U	5.0 U	63 U	10 U	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																	
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	1,000 U	500 U	200 U	100 U	80 U	100 U	1,300 U	200 U	10 U	10 U	10 U
Chlorobenzene	1,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U	1.0 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	2.0 U	2.0 U	2.0 U	2.0 U	200 U	100 U	40 U	20 U	16 U	20 U	250 U	40 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U	1.0 U
Methylene chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	100 U	25 J	20 U	10 U	8.0 U	10 U	68 J	20 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U	1.0 U
Toluene	40,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	11	10 U	130 U	20 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	3.0 U	3.0 U	3.0 U	3.0 U	300 U	150 U	60 U	30 U	24 U	30 U	280 U	60 U	3.0 U	3.0 U	3.0 U
Total Metals (ug/L)																	
Chromium (Cr)	300	3,000	170	100	**450**	120	5.0 U	5.0 U	1.9 J	2.2 J	**1,700**	**490**	**2,700**	**530**	6.7	110	96
Chromium (Hexavalent)	300	3,000	170 J	93	40	120	6.6 J-	10 U	10 U	10 U	**970 J**	**440**	140	**400**	10 U	98	81

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (September 2019 – December 2021)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards[1]		OSW-3B	OSW-3B	OSW-3B	OSW-3B	OSW-4I	OSW-4I	OSW-4I	OSW-4I	OSW-7A	OSW-7A DUP	OSW-7A	OSW-7A	OSW-7A DUP	OSW-7A	PP-2	PP-2	PP-2	PP-2
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Sep-19	Apr-20	Oct-20	Apr-21	Sep-19	Mar-20	Oct-20	Apr-21	Sep-19	Sep-19	Mar-20	Sep-20	Sep-20	Apr-21	Sep-19	Apr-20	Oct-20	Apr-21
Chlorinated Ethenes (ug/L)																				
Tetrachloroethene	30,000	100,000	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Trichloroethene (TCE)	5,000	50,000	40	37	39	92	32	110	96	170	210	200	17	6.4 J+	6.5 J+	13	3.4	34	61	50
cis-1,2-Dichloroethene	50,000	100,000	66	59	55	100	21	38	35	64	29	27	2.3	1.0 U	1.0 U	1.3	18	19	76	30
trans-1,2-Dichloroethene	50,000	100,000	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,1-Dichloroethene	30,000	100,000	2.0 U	2.0 U	2.0 U	2.0 U	0.37 J	0.92 J	0.73 J	1.3	1.0 U	0.34 J	1.0 U	1.0 U	1.0 U	1.0 U	0.38 J	0.50 J	1.4 J	0.65 J
Vinyl chloride	50,000	100,000	2.0 U	2.0 U	2.0 U	2.0 U	2.7	2.6	3.3	5.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	11	4.2	9.5	4.3
Chlorinated Ethanes (ug/L)																				
Chloroethane	NL	NL	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.48 J	2.0 U	4.0 U	4.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U
1,1,1-Trichloroethane	20,000	100,000	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,1,2-Trichloroethane	50,000	100,000	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,1-Dichloroethane	20,000	100,000	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,2-Dichloroethane	20,000	100,000	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Other VOCs (ug/L)																				
Benzene	10,000	100,000	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Carbon disulfide	NL	NL	20 U	20 U	20 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	20 U
Chlorobenzene	1,000	10,000	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Chloroform	20,000	10,000	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Chloromethane	NL	NL	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	4.0 U
Ethylbenzene	5,000	100,000	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Methylene chloride	50,000	100,000	2.0 U	0.90 J	1.1 J	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Toluene	40,000	100,000	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Xylenes (Total)	5,000	100,000	6.0 U	6.0 U	6.0 U	6.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	6.0 U	6.0 U
Total Metals (ug/L)																				
Chromium (Cr)	300	3,000	3.4 J	5.0 U	1.5 J	5.0 U	67	52	51	22	**530 J-**	**460 J-**	190	300	**310**	230	8.4	130	3.9 J	130
Chromium (Hexavalent)	300	3,000	10 U	10 U	30	10 U	10 U	66	57	11	**420 J**	180 J	180	**370**	**350**	210	10 U	10 U	24	120

Notes:
(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only
--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000
U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected
10 - Indicates value exceeds current GW-3 Standard
10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (September 2019 – December 2021)
Conductorlab Site, Groton, Massachusetts

	MCP Method 1 GW Standards[1]																		
Parameter	GW-3 MCP	UCL GW MCP	CPZ-2C	CPZ-2C	CPZ-2C	CPZ-2C	CPZ-2C	CPZ-2C	CPZ-2C	CPZ-2C	RW-3	RW-3	RW-3	RW-3	RW-3	RW-3	RW-3	RW-3	RW-3
	(ug/L)	(ug/L)	Jul-20	Jul-20	Jul-20	Sep-20	Dec-20	Apr-21	Jun-21	Sep-21	Jul-20	Jul-20	Jul-20	Sep-20	Dec-20	Jan-21	Apr-21	Jun-21	Sep-21
Chlorinated Ethenes (ug/L)																			
Tetrachloroethene	30,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Trichloroethene (TCE)	5,000	50,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
cis-1,2-Dichloroethene	50,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
trans-1,2-Dichloroethene	50,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,1-Dichloroethene	30,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Vinyl chloride	50,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chlorinated Ethanes (ug/L)																			
Chloroethane	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,1,2,2-Tetrachloroethane	50,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,1,1-Trichloroethane	20,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,1,2-Trichloroethane	50,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,1-Dichloroethane	20,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2-Dichloroethane	20,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Other VOCs (ug/L)																			
Benzene	10,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Carbon disulfide	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chlorobenzene	1,000	10,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chloroform	20,000	10,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chloromethane	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Ethylbenzene	5,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Methylene chloride	50,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Toluene	40,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Xylenes (Total)	5,000	100,000						---	---	---							---	---	---
Total Metals (ug/L)																			
Chromium (Cr)	300	3,000	19	16	22	36	2.4 J	2.6 J	4.1 J	4.2 J	**310**	300	290	230	150	---	**380**	**360**	**330**
Chromium (Hexavalent)	300	3,000	10 U	10 U	10 U	8.9 J	10 UJ	10 U	10 U	10 U	290	280	270	230	130 J	180	**370**	**350**	**310 J**

Notes:
(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only
--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000
U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected
10 - Indicates value exceeds current GW-3 Standard
10 - Indicates value exceeds current UCL

Prepared by / Date: MDM 03/15/2022
Checked by / Date: CTM 04/06/2022

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells
(2019 –2021)
Conductorlab Site, Groton, Massachusetts

	MCP Method 1 GW Standards															
Parameter	GW-3 MCP	UCL GW MCP	CLW-17	CLW-17	CLW-17	CLW-17	CLW-17 DUP	CLW-19	CLW-19 DUP	CLW-19	CLW-19	CLW-19	CLW-20	CLW-20	CLW-20	CLW-20
	(ug/L)	(ug/L)	Sep-19	Apr-20	Sep-20	Apr-21	Apr-21	Sep-19	Sep-19	Mar-20	Sep-20	Apr-21	Sep-19	Apr-20	Sep-20	Apr-21
Chlorinated Ethenes (ug/L)																
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	3.7	5.2	17	2.7	2.5	3.0	2.5	0.52 J	4.5	1.0	0.94 J	1.5	1.4	2.8
cis-1,2-Dichloroethene	50,000	100,000	1.0 U	1.3	4.1	1.0 U	1.0 U	0.85 J	1.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorinated Ethanes (ug/L)																
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL		2.0 U	2.0 U	2.0 U	2.0 U			2.0 U	2.0 U	2.0 U		2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Metals (ug/L)																
Chromium (Total)	300	3,000	41	21	44	23	23	21	22	12	23	17	1.2 J	1.2 J	2.1 J	5.0 U
Chromium (Hexavalent)	300	3,000	43 J	19	33	16	7.3 J	17 J	21 J	14	36	10 U	6.6 J	6.8 J	7.6 J	10 U

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells
(2019 –2021)
Conductorlab Site, Groton, Massachusetts

	MCP Method 1 GW Standards																		
Parameter	GW-3 MCP	UCL GW MCP	CLW-22	CLW-22	CLW-22	CLW-22	CLW-17B	CLW-17B	CLW-17B DUP	CLW-17B	CLW-17B	CLW-19B	CLW-19B	CLW-19B	CLW-19B	CLW-20B	CLW-20B	CLW-20B	CLW-20B
	(ug/L)	(ug/L)	Sep-19	Mar-20	Sep-20	Apr-21	Sep-19	Apr-20	Apr-20	Sep-20	Apr-21	Sep-19	Mar-20	Sep-20	Apr-21	Sep-19	Apr-20	Sep-20	Apr-21
Chlorinated Ethenes (ug/L)																			
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	20	9.0	20	6.3	79	80	81	99	70	2.5	1.2	3.4	1.5	1.0 U	0.49 J	1.0 U	1.0 U
cis-1,2-Dichloroethene	50,000	100,000	4.4	1.8	4.0	1.1	21	19	20	25	17	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	5.2	4.9	5.0	6.5	4.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorinated Ethanes (ug/L)																			
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.87 J	1.0 U	0.43 J
Other VOCs (ug/L)																			
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL		2.0 U	2.0 U	2.0 U		2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	2.0 U	2.0 U		2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.16 J	1.0 U	1.0 U
Total Metals (ug/L)																			
Chromium (Total)	300	3,000	24	9.7	16	9.2	6.9	6.2	6.5	5.5	6.4	15	7.8	15	7.9	5.0 U	5.0 U	5.0 U	5.0 U
Chromium (Hexavalent)	300	3,000	25	13	10 U	10 U	6.6 J	10 U	10 U	10 U	10 U	23 J	7.8 J	10 U	53	10 U	10 U	10 U	10 U

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells
(2019 –2021)
Conductorlab Site, Groton, Massachusetts

	MCP Method 1 GW Standards																	
Parameter	GW-3 MCP	UCL GW MCP	CLW-22B	CLW-22B	CLW-22B	CLW-22B	PP-3	PP-3	PP-3	PP-3 DUP	PP-3	PP-4A	PP-4A	PP-4A	PP-4A	PP-4B	PP-4B	PP-4B	PP-4B
	(ug/L)	(ug/L)	Sep-19	Mar-20	Sep-20	Apr-21	Sep-19	Apr-20	Oct-20	Oct-20	Apr-21	Sep-19	Apr-20	Oct-20	Apr-21	Sep-19	Apr-20	Oct-20	Apr-21
Chlorinated Ethenes (ug/L)																			
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	2.4 J	2.0 U	2.6	2.5	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene (TCE)	5,000	50,000	19	7.8	19	6.7	2,600	120	**5,600**	**6,300**	370	18	72	55	170	260	260	280	190
cis-1,2-Dichloroethene	50,000	100,000	4.1	1.5	3.6	1.1	360	11	1,100	1,500	58	2.5	5.6	5.9	14	250	220	230	150
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.2	2.0 U	11	9.7	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	12	10	12	9.3
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.8	2.4	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	73	2.0 U	95 J	220	4.7	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorinated Ethanes (ug/L)																			
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Other VOCs (ug/L)																			
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	40 U	20 U	20 U	20 U	40 U	10 U	10 U	10 U	10 U	50 U	50 U	50 U	50 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	NL	NL		2.0 U	2.0 U	2.0 U		4.0 U	4.0 U	4.0 U	8.0 U		2.0 U	2.0 U	2.0 U		10 U	10 U	10 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Total Metals (ug/L)																			
Chromium (Total)	300	3,000	16	8.7	16	15	**870**	**400**	**1,000**	**1,100**	**470**	9.1	16	3.6 J	35	12	9.8	13	12
Chromium (Hexavalent)	300	3,000	40	21	10 U	10 U	**980 J**	**510**	160	100	**420**	10 UJ	21	34	20	16	16	10 U	10 U

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Prepared by / Date: HTS 08/24/2021

Checked by / Date: JMM 09/14/2021

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells
(2019 –2021)
Conductorlab Site, Groton, Massachusetts

	MCP Method 1 GW Standards															
Parameter	GW-3 MCP	UCL GW MCP	CLW-17	CLW-17	CLW-17	CLW-17	CLW-17 DUP	CLW-19	CLW-19 DUP	CLW-19	CLW-19	CLW-19	CLW-20	CLW-20	CLW-20	CLW-20
	(ug/L)	(ug/L)	Sep-19	Apr-20	Sep-20	Apr-21	Apr-21	Sep-19	Sep-19	Mar-20	Sep-20	Apr-21	Sep-19	Apr-20	Sep-20	Apr-21
Chlorinated Ethenes (ug/L)																
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	3.7	5.2	17	2.7	2.5	3.0	2.5	0.52 J	4.5	1.0	0.94 J	1.5	1.4	2.8
cis-1,2-Dichloroethene	50,000	100,000	1.0 U	1.3	4.1	1.0 U	1.0 U	0.85 J	1.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorinated Ethanes (ug/L)																
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL		2.0 U	2.0 U	2.0 U	2.0 U			2.0 U	2.0 U	2.0 U		2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Metals (ug/L)																
Chromium (Total)	300	3,000	41	21	44	23	23	21	22	12	23	17	1.2 J	1.2 J	2.1 J	5.0 U
Chromium (Hexavalent)	300	3,000	43 J	19	33	16	7.3 J	17 J	21 J	14	36	10 U	6.6 J	6.8 J	7.6 J	10 U

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells
(2019 –2021)
Conductorlab Site, Groton, Massachusetts

	MCP Method 1 GW Standards																		
Parameter	GW-3 MCP	UCL GW MCP	CLW-22	CLW-22	CLW-22	CLW-22	CLW-17B	CLW-17B	CLW-17B DUP	CLW-17B	CLW-17B	CLW-19B	CLW-19B	CLW-19B	CLW-19B	CLW-20B	CLW-20B	CLW-20B	CLW-20B
	(ug/L)	(ug/L)	Sep-19	Mar-20	Sep-20	Apr-21	Sep-19	Apr-20	Apr-20	Sep-20	Apr-21	Sep-19	Mar-20	Sep-20	Apr-21	Sep-19	Apr-20	Sep-20	Apr-21
Chlorinated Ethenes (ug/L)																			
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	20	9.0	20	6.3	79	80	81	99	70	2.5	1.2	3.4	1.5	1.0 U	0.49 J	1.0 U	1.0 U
cis-1,2-Dichloroethene	50,000	100,000	4.4	1.8	4.0	1.1	21	19	20	25	17	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	5.2	4.9	5.0	6.5	4.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorinated Ethanes (ug/L)																			
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.87 J	1.0 U	0.43 J
Other VOCs (ug/L)																			
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL		2.0 U	2.0 U	2.0 U		2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	2.0 U	2.0 U		2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.16 J	1.0 U	1.0 U
Total Metals (ug/L)																			
Chromium (Total)	300	3,000	24	9.7	16	9.2	6.9	6.2	6.5	5.5	6.4	15	7.8	15	7.9	5.0 U	5.0 U	5.0 U	5.0 U
Chromium (Hexavalent)	300	3,000	25	13	10 U	10 U	6.6 J	10 U	10 U	10 U	10 U	23 J	7.8 J	10 U	53	10 U	10 U	10 U	10 U

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells
(2019 –2021)
Conductorlab Site, Groton, Massachusetts

	MCP Method 1 GW Standards																	
Parameter	GW-3 MCP	UCL GW MCP	CLW-22B	CLW-22B	CLW-22B	CLW-22B	PP-3	PP-3	PP-3	PP-3 DUP	PP-3	PP-4A	PP-4A	PP-4A	PP-4A	PP-4B	PP-4B	PP-4B	PP-4B
	(ug/L)	(ug/L)	Sep-19	Mar-20	Sep-20	Apr-21	Sep-19	Apr-20	Oct-20	Oct-20	Apr-21	Sep-19	Apr-20	Oct-20	Apr-21	Sep-19	Apr-20	Oct-20	Apr-21
Chlorinated Ethenes (ug/L)																			
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	2.4 J	2.0 U	2.6	2.5	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene (TCE)	5,000	50,000	19	7.8	19	6.7	2,600	120	**5,600**	**6,300**	370	18	72	55	170	260	260	280	190
cis-1,2-Dichloroethene	50,000	100,000	4.1	1.5	3.6	1.1	360	11	1,100	1,500	58	2.5	5.6	5.9	14	250	220	230	150
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.2	2.0 U	11	9.7	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	12	10	12	9.3
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.8	2.4	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	73	2.0 U	95 J	220	4.7	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorinated Ethanes (ug/L)																			
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Other VOCs (ug/L)																			
Benzene	10,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	NL	NL	10 U	10 U	10 U	10 U	40 U	20 U	20 U	20 U	40 U	10 U	10 U	10 U	10 U	50 U	50 U	50 U	50 U
Chloroform	20,000	10,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	NL	NL		2.0 U	2.0 U	2.0 U		4.0 U	4.0 U	4.0 U	8.0 U		2.0 U	2.0 U	2.0 U		10 U	10 U	10 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Total Metals (ug/L)																			
Chromium (Total)	300	3,000	16	8.7	16	15	**870**	**400**	**1,000**	**1,100**	**470**	9.1	16	3.6 J	35	12	9.8	13	12
Chromium (Hexavalent)	300	3,000	40	21	10 U	10 U	**980 J**	**510**	160	100	**420**	10 UJ	21	34	20	16	16	10 U	10 U

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Prepared by / Date: HTS 08/24/2021

Checked by / Date: JMM 09/14/2021

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (September 2019 – June 2021)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1] GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	CIW-1B Sep-19	CIW-1B Apr-20	CIW-1B Oct-20	CIW-1B Apr-21	CLW-5A Mar-20	CLW-5A DUP Mar-20	CLW-5A Apr-21	CLW-5A DUP Apr-21	CLW-5B Sep-19	CLW-5B Mar-20	CLW-5B Sep-20	CLW-5B Apr-21	CLW-7A Jul-20	CLW-7A Jul-20	CLW-7A Jul-20	CLW-7A Sep-20	CLW-7A Dec-20	CLW-7A Apr-21	CLW-7A Jun-21
Chlorinated Ethenes (ug/L)																					
Tetrachloroethene	30,000	100,000	11 J	27	7.5 J	13 J	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---
Trichloroethene (TCE)	5,000	50,000	930	1,900	1,100	1,000	0.78 J+	0.80 J	0.58 J	0.72 J	340	15	290	41	---	---	---	---	---	---	---
cis-1,2-Dichloroethene	50,000	100,000	210	320	270	180	1.0 U	1.0 U	1.0 U	1.0 U	160	1.9	200	13	---	---	---	---	---	---	---
trans-1,2-Dichloroethene	50,000	100,000	31	48	41	23	1.0 U	1.0 U	1.0 U	1.0 U	10	1.0 U	12	1.4	---	---	---	---	---	---	---
1,1-Dichloroethene	30,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	3.3	1.0 U	---	---	---	---	---	---	---
Vinyl chloride	50,000	100,000	95	120	190	70	1.0 U	1.0 U	1.0 U	1.0 U	11	1.0 U	16	1.0 U	---	---	---	---	---	---	---
Chlorinated Ethanes (ug/L)																					
Chloroethane	NL	NL	40 U	40 U	40 U	40 UJ	2.0 U	2.0 U	2.0 U	2.0 U	7.6 J	2.0 U	6.9	2.0 U	---	---	---	---	---	---	---
1,1,2,2-Tetrachloroethane	50,000	100,000	10 U	10 U	10 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	5.0 U	0.50 U	0.50 U	0.50 U	---	---	---	---	---	---	---
1,1,1-Trichloroethane	20,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---
1,1,2-Trichloroethane	50,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---
1,1-Dichloroethane	20,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---
1,2-Dichloroethane	20,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---
Other VOCs (ug/L)																					
Benzene	10,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---
Carbon disulfide	NL	NL	200 U	200 U	200 U	200 U	10 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U	---	---	---	---	---	---	---
Chlorobenzene	1,000	10,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---
Chloroform	20,000	10,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---
Chloromethane	NL	NL	40 U	40 U	40 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	2.0 U	2.0 U	2.0 U	---	---	---	---	---	---	---
Ethylbenzene	5,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---
Methylene chloride	50,000	100,000	20 U	20 U	9.2 J	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	0.70 J	1.0 U	---	---	---	---	---	---	---
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---
Toluene	40,000	100,000	20 U	20 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---	---
Xylenes (Total)	5,000	100,000	60 U	60 U	60 U	60 U	3.0 U	3.0 U	3.0 U	3.0 U	30 U	3.0 U	3.0 U	3.0 U						---	---
Total Metals (ug/L)																					
Chromium (Cr)	300	3,000	280	8.3	51	24	80	79	99	65	16	79	9.0	97	1.1 J	3.9 J	2.0 J	1.1 J	1.5 J	1.0 J	5.0 U
Chromium (Hexavalent)	300	3,000	10 UJ	10 U	23	10 U	73	79	78	11	10 UJ	77	10 U	78	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (September 2019 – June 2021)
Conductorlab Site, Groton, Massachusetts

	MCP Method 1 GW Standards [1]																			
Parameter	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	CLW-8 Sep-19	CLW-8 Mar-20	CLW-8 Jun-20	CLW-8 Jul-20	CLW-8 Jul-20	CLW-8 Jul-20	CLW-8 Oct-20	CLW-8 Dec-20	CLW-8 Jan-21	CLW-8 Apr-21	CLW-8 Jun-21	CLW-16B Sep-19	CLW-16B Apr-20	CLW-16B Oct-20	CLW-16B Apr-21	DMW-A Sep-19	DMW-A Mar-20	DMW-A Sep-20
Chlorinated Ethenes (ug/L)																				
Tetrachloroethene	30,000	100,000	0.43 J	1.0 U	---	---	---	---	1.0 U	---	---	1.0 U	---	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	37	28	---	---	---	---	11	---	---	11	---	**8,700**	2,700	**14,000**	4,900	1.1	4.0	2.8
cis-1,2-Dichloroethene	50,000	100,000	5.2	8.7	---	---	---	---	6.5	---	---	3.7	---	2,100	520	2,900	480	10	11	16
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	---	---	---	---	1.0 U	---	---	1.0 U	---	430	120 J	560	200 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	1.0 U	---	---	---	---	1.0 U	---	---	1.0 U	---	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	1.0 U	1.0 U	---	---	---	---	1.0 U	---	---	1.0 U	---	780	130 U	790 J	200 U	1.0 U	1.0 U	1.2
Chlorinated Ethanes (ug/L)																				
Chloroethane	NL	NL	2.0 U	2.0 U	---	---	---	---	2.0 U	---	---	2.0 U	---	100 U	250 U	250 UJ	400 U	2.0 U	2.0 U	2.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	---	---	---	---	0.50 U	---	---	0.50 U	---	25 U	63 U	63 U	100 U	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	20,000	100,000	1.0 U	1.0 U	---	---	---	---	1.0 U	---	---	1.0 U	---	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	1.0 U	---	---	---	---	1.0 U	---	---	1.0 U	---	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	---	---	---	---	1.0 U	---	---	1.0 U	---	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	1.0 U	1.0 U	---	---	---	---	1.0 U	---	---	1.0 U	---	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																				
Benzene	10,000	100,000	1.0 U	1.0 U	---	---	---	---	1.0 U	---	---	1.0 U	---	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	---	---	---	---	10 U	---	---	10 U	---	500 U	1,300 U	1,300 U	2,000 U	10 U	10 U	10 U
Chlorobenzene	1,000	10,000	1.0 U	1.0 U	---	---	---	---	1.0 U	---	---	1.0 U	---	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U
Chloroform	20,000	10,000	1.0 U	1.0 U	---	---	---	---	1.0 U	---	---	1.0 U	---	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL	NL	2.0 U	2.0 U	---	---	---	---	2.0 U	---	---	2.0 U	---	100 U	250 U	250 U	400 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	---	---	---	---	1.0 U	---	---	1.0 U	---	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U
Methylene chloride	50,000	100,000	1.0 U	1.0 U	---	---	---	---	1.0 U	---	---	1.0 U	---	50 U	63 J	130 U	200 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	---	---	---	---	1.0 U	---	---	1.0 U	---	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U
Toluene	40,000	100,000	1.0 U	1.0 U	---	---	---	---	1.0 U	---	---	1.0 U	---	50 U	130 U	130 U	200 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	3.0 U	3.0 U	---				3.0 U			3.0 U	---	150 U	380 U	280 U	600 U	3.0 U	3.0 U	3.0 U
Total Metals (ug/L)																				
Chromium (Cr)	300	3,000	**1,000**	**330**	**690**	**390**	**520**	130	19	130	---	160	210	6.1	8.5	7.8	5.7	1.4 J	5.0 U	1.0 J
Chromium (Hexavalent)	300	3,000	**890 J**	250	**460**	**380 J-**	**450**	98	25	110 J	130	120	200	10 U	10 U	35	10 U	10 R	10 U	10 U

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (September 2019 – June 2021)
Conductorlab Site, Groton, Massachusetts

	MCP Method 1 GW Standards [1]																			
Parameter	GW-3 MCP	UCL GW MCP	DMW-A	DMW-B	DMW-B	DMW-B	DMW-B	OSW-1A	OSW-1A	OSW-1A	OSW-1A	OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-2B	OSW-2B	OSW-2B	OSW-2B	OSW-3A	OSW-3A
	(ug/L)	(ug/L)	Apr-21	Sep-19	Mar-20	Sep-20	Apr-21	Sep-19	Mar-20	Oct-20	Apr-21	Sep-19	Mar-20	Sep-20	Apr-21	Sep-19	Mar-20	Oct-20	Apr-21	Sep-19	Mar-20
Chlorinated Ethenes (ug/L)																					
Tetrachloroethene	30,000	100,000	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	5.0	21	51	13	34	7.3	3.4	3.9	2.9	2,100	3,900	1,400	520	**9,300**	830	2,800	1,200	91	30
cis-1,2-Dichloroethene	50,000	100,000	16	69	160	83	130	1.0 U	1.0 U	1.0 U	1.0 U	200	370	200	95	800	27	260	64	13	1.7
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	17	47	18	29	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	22	15	1,100	36	1,100	62	1.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	0.35 J	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U
Vinyl chloride	50,000	100,000	1.0	4.7	12	8.5	4.0	1.0 U	1.0 U	1.0 U	1.0 U	100 U	58	21	10 U	190	10 U	130 U	18 J	1.0 U	1.0 U
Chlorinated Ethanes (ug/L)																					
Chloroethane	NL	NL	2.0 U	2.0 U	8.0 U	8.0 U	8.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	200 U	100 U	40 U	20 UJ	16 U	20 U	250 U	40 UJ	2.0 U	2.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	0.50 U	2.0 U	2.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	50 U	25 U	10 U	5.0 U	4.0 U	5.0 U	63 U	10 U	0.50 U	0.50 U
1,1,1-Trichloroethane	20,000	100,000	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U
Other VOCs (ug/L)																					
Benzene	10,000	100,000	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U
Carbon disulfide	NL	NL	10 U	10 U	40 U	40 U	40 U	10 U	10 U	10 U	10 U	1,000 U	500 U	200 U	100 U	80 U	100 U	1,300 U	200 U	10 U	10 U
Chlorobenzene	1,000	10,000	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U
Chloroform	20,000	10,000	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U
Chloromethane	NL	NL	2.0 U	2.0 U	8.0 U	8.0 U	8.0 U	2.0 U	2.0 U	2.0 U	2.0 U	200 U	100 U	40 U	20 U	16 U	20 U	250 U	40 U	2.0 U	2.0 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U
Methylene chloride	50,000	100,000	1.0 U	1.0 U	4.0 U	2.0 J	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	25 J	20 U	10 U	8.0 U	10 U	68 J	20 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	8.0 U	10 U	130 U	20 U	1.0 U	1.0 U
Toluene	40,000	100,000	1.0 U	1.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	50 U	20 U	10 U	11	10 U	130 U	20 U	1.0 U	1.0 U
Xylenes (Total)	5,000	100,000	3.0 U	3.0 U	12 U	12.0 U	12 U	3.0 U	3.0 U	3.0 U	3.0 U	300 U	150 U	60 U	30 U	24 U	30 U	280 U	60 U	3.0 U	3.0 U
Total Metals (ug/L)																					
Chromium (Cr)	300	3,000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	170	100	**450**	120	5.0 U	5.0 U	1.9 J	2.2 J	**1,700**	**490**	**2,700**	**530**	6.7	110
Chromium (Hexavalent)	300	3,000	10 U	10 R	5.4 J	10 U	10 U	170 J	93	40	120	6.6 J-	10 U	10 U	10 U	**970 J**	**440**	140	**400**	10 U	98

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (September 2019 – June 2021)
Conductorlab Site, Groton, Massachusetts

	MCP Method 1 GW Standards [1]																				
Parameter	GW-3 MCP	UCL GW MCP	OSW-3A	OSW-3B	OSW-3B	OSW-3B	OSW-3B	OSW-4I	OSW-4I	OSW-4I	OSW-4I	OSW-7A	OSW-7A DUP	OSW-7A	OSW-7A	OSW-7A DUP	OSW-7A	PP-2	PP-2	PP-2	PP-2
	(ug/L)	(ug/L)	Apr-21	Sep-19	Apr-20	Oct-20	Apr-21	Sep-19	Mar-20	Oct-20	Apr-21	Sep-19	Sep-19	Mar-20	Sep-20	Sep-20	Apr-21	Sep-19	Apr-20	Oct-20	Apr-21
Chlorinated Ethenes (ug/L)																					
Tetrachloroethene	30,000	100,000	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Trichloroethene (TCE)	5,000	50,000	20	40	37	39	92	32	110	96	170	210	200	17	6.4 J+	6.5 J+	13	3.4	34	61	50
cis-1,2-Dichloroethene	50,000	100,000	0.84 J	66	59	55	100	21	38	35	64	29	27	2.3	1.0 U	1.0 U	1.3	18	19	76	30
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,1-Dichloroethene	30,000	100,000	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.37 J	0.92 J	0.73 J	1.3	1.0 U	0.34 J	1.0 U	1.0 U	1.0 U	1.0 U	0.38 J	0.50 J	1.4 J	0.65 J
Vinyl chloride	50,000	100,000	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.7	2.6	3.3	5.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	11	4.2	9.5	4.3
Chlorinated Ethanes (ug/L)																					
Chloroethane	NL	NL	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.48 J	2.0 U	4.0 U	4.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U
1,1,1-Trichloroethane	20,000	100,000	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,1,2-Trichloroethane	50,000	100,000	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,1-Dichloroethane	20,000	100,000	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
1,2-Dichloroethane	20,000	100,000	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Other VOCs (ug/L)																					
Benzene	10,000	100,000	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Carbon disulfide	NL	NL	10 U	20 U	20 U	20 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	20 U
Chlorobenzene	1,000	10,000	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Chloroform	20,000	10,000	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Chloromethane	NL	NL	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	4.0 U
Ethylbenzene	5,000	100,000	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Methylene chloride	50,000	100,000	1.0 U	2.0 U	0.90 J	1.1 J	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Toluene	40,000	100,000	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
Xylenes (Total)	5,000	100,000	3.0 U	6.0 U	6.0 U	6.0 U	6.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	6.0 U	6.0 U
Total Metals (ug/L)																					
Chromium (Cr)	300	3,000	96	3.4 J	5.0 U	1.5 J	5.0 U	67	52	51	22	**530 J-**	**460 J-**	190	300	**310**	230	8.4	130	3.9 J	130
Chromium (Hexavalent)	300	3,000	81	10 U	10 U	30	10 U	10 U	66	57	11	**420 J**	180 J	180	**370**	**350**	210	10 U	10 U	24	120

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected

10 - Indicates value exceeds current GW-3 Standard.

10 - Indicates value exceeds current UCL.

Table 3
Summary of Compounds Detected in Groundwater
On-Property Wells (September 2019 – June 2021)
Conductorlab Site, Groton, Massachusetts

	MCP Method 1 GW Standards [1]																
Parameter	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	CPZ-2C Jul-20	CPZ-2C Jul-20	CPZ-2C Jul-20	CPZ-2C Sep-20	CPZ-2C Dec-20	CPZ-2C Apr-21	CPZ-2C Jun-21	RW-3 Jul-20	RW-3 Jul-20	RW-3 Jul-20	RW-3 Sep-20	RW-3 Dec-20	RW-3 Jan-21	RW-3 Apr-21	RW-3 Jun-21
Chlorinated Ethenes (ug/L)																	
Tetrachloroethene	30,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Trichloroethene (TCE)	5,000	50,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
cis-1,2-Dichloroethene	50,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
trans-1,2-Dichloroethene	50,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,1-Dichloroethene	30,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Vinyl chloride	50,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chlorinated Ethanes (ug/L)																	
Chloroethane	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,1,2,2-Tetrachloroethane	50,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,1,1-Trichloroethane	20,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,1,2-Trichloroethane	50,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,1-Dichloroethane	20,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2-Dichloroethane	20,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Other VOCs (ug/L)																	
Benzene	10,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Carbon disulfide	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chlorobenzene	1,000	10,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chloroform	20,000	10,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chloromethane	NL	NL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Ethylbenzene	5,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Methylene chloride	50,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Toluene	40,000	100,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Xylenes (Total)	5,000	100,000						---	---							---	---
Total Metals (ug/L)																	
Chromium (Cr)	300	3,000	19	16	22	36	2.4 J	2.6 J	4.1 J	**310**	300	290	230	150	---	**380**	**360**
Chromium (Hexavalent)	300	3,000	10 U	10 U	10 U	8.9 J	10 UJ	10 U	10 U	290	280	270	230	130 J	180	**370**	**350**

Notes:

Prepared by / Date: HTS 08/24/2021
Checked by / Date: JMM 09/14/2021

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (September 2019 – June 2021)
Conductorlab Site, Groton, Massachusetts

Parameter	UCL GW MCP	CLW-17	CLW-17	CLW-17	CLW-17	CLW-17 DUP	CLW-19	CLW-19 DUP	CLW-19	CLW-19	CLW-19	CLW-20	CLW-20	CLW-20	CLW-20
	(ug/L)	Sep-19	Apr-20	Sep-20	Apr-21	Apr-21	Sep-19	Sep-19	Mar-20	Sep-20	Apr-21	Sep-19	Apr-20	Sep-20	Apr-21
Chlorinated Ethenes (ug/L)															
Tetrachloroethene	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	50,000	3.7	5.2	17	2.7	2.5	3.0	2.5	0.52 J	4.5	1.0	0.94 J	1.5	1.4	2.8
cis-1,2-Dichloroethene	100,000	1.0 U	1.3	4.1	1.0 U	1.0 U	0.85 J	1.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorinated Ethanes (ug/L)															
1,1,2,2-Tetrachloroethane	100,000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)															
Benzene	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL		2.0 U	2.0 U	2.0 U	2.0 U			2.0 U	2.0 U	2.0 U		2.0 U	2.0 U	2.0 U
Ethylbenzene	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Metals (ug/L)															
Chromium (Total)	3,000	41	21	44	23	23	21	22	12	23	17	1.2 J	1.2 J	2.1 J	5.0 U
Chromium (Hexavalent)	3,000	43 J	19	33	16	7.3 J	17 J	21 J	14	36	10 U	6.6 J	6.8 J	7.6 J	10 U

Notes:
(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only
NL = indicates standard not listed in 310 CMR 40.0000
U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected
10 - Indicates value exceeds current GW-3 Standard
10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (September 2019 – June 2021)
Conductorlab Site, Groton, Massachusetts

Parameter	UCL GW MCP	CLW-22	CLW-22	CLW-22	CLW-22	CLW-17B	CLW-17B	CLW-17B DUP	CLW-17B	CLW-17B	CLW-19B	CLW-19B	CLW-19B	CLW-19B	CLW-20B	CLW-20B	CLW-20B	CLW-20B
	(ug/L)	Sep-19	Mar-20	Sep-20	Apr-21	Sep-19	Apr-20	Apr-20	Sep-20	Apr-21	Sep-19	Mar-20	Sep-20	Apr-21	Sep-19	Apr-20	Sep-20	Apr-21
Chlorinated Ethenes (ug/L)																		
Tetrachloroethene	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)	50,000	20	9.0	20	6.3	79	80	81	99	70	2.5	1.2	3.4	1.5	1.0 U	0.49 J	1.0 U	1.0 U
cis-1,2-Dichloroethene	100,000	4.4	1.8	4.0	1.1	21	19	20	25	17	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	100,000	1.0 U	1.0 U	1.0 U	1.0 U	5.2	4.9	5.0	6.5	4.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorinated Ethanes (ug/L)																		
1,1,2,2-Tetrachloroethane	100,000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.87 J	1.0 U	0.43 J
Other VOCs (ug/L)																		
Benzene	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	NL	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	10,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	NL		2.0 U	2.0 U	2.0 U		2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	2.0 U	2.0 U		2.0 U	2.0 U	2.0 U
Ethylbenzene	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl-tert-butyl-ether (MTBE)	100,000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.16 J	1.0 U	1.0 U
Total Metals (ug/L)																		
Chromium (Total)	3,000	24	9.7	16	9.2	6.9	6.2	6.5	5.5	6.4	15	7.8	15	7.9	5.0 U	5.0 U	5.0 U	5.0 U
Chromium (Hexavalent)	3,000	25	13	10 U	10 U	6.6 J	10 U	10 U	10 U	10 U	23 J	7.8 J	10 U	53	10 U	10 U	10 U	10 U

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Table 3
Summary of Compounds Detected in Groundwater
Off-Property Wells (September 2019 – June 2021)
Conductorlab Site, Groton, Massachusetts

Parameter	UCL GW MCP	CLW-22B	CLW-22B	CLW-22B	CLW-22B	PP-3	PP-3	PP-3	PP-3 DUP	PP-3	PP-4A	PP-4A	PP-4A	PP-4A	PP-4B	PP-4B	PP-4B	PP-4B
	(ug/L)	Sep-19	Mar-20	Sep-20	Apr-21	Sep-19	Apr-20	Oct-20	Oct-20	Apr-21	Sep-19	Apr-20	Oct-20	Apr-21	Sep-19	Apr-20	Oct-20	Apr-21
Chlorinated Ethenes (ug/L)																		
Tetrachloroethene	100,000	1.0 U	1.0 U	1.0 U	1.0 U	2.4 J	2.0 U	2.6	2.5	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene (TCE)	50,000	19	7.8	19	6.7	2,600	120	**5,600**	**6,300**	370	18	72	55	170	260	260	280	190
cis-1,2-Dichloroethene	100,000	4.1	1.5	3.6	1.1	360	11	1,100	1,500	58	2.5	5.6	5.9	14	250	220	230	150
trans-1,2-Dichloroethene	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.2	2.0 U	11	9.7	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	12	10	12	9.3
1,1-Dichloroethene	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.8	2.4	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	100,000	1.0 U	1.0 U	1.0 U	1.0 U	73	2.0 U	95 J	220	4.7	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorinated Ethanes (ug/L)																		
1,1,2,2-Tetrachloroethane	100,000	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	1.0 U	1.0 U	1.0 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethane	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Other VOCs (ug/L)																		
Benzene	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	NL	10 U	10 U	10 U	10 U	40 U	20 U	20 U	20 U	40 U	10 U	10 U	10 U	10 U	50 U	50 U	50 U	50 U
Chloroform	10,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	NL		2.0 U	2.0 U	2.0 U		4.0 U	4.0 U	4.0 U	8.0 U		2.0 U	2.0 U	2.0 U		10 U	10 U	10 U
Ethylbenzene	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl-tert-butyl-ether (MTBE)	100,000	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Total Metals (ug/L)																		
Chromium (Total)	3,000	16	8.7	16	15	**870**	**400**	**1,000**	**1,100**	**470**	9.1	16	3.6 J	35	12	9.8	13	12
Chromium (Hexavalent)	3,000	40	21	10 U	10 U	**980 J**	**510**	160	100	**420**	10 UJ	21	34	20	16	16	10 U	10 U

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1 for perspective only

NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; R = value was rejected

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Prepared by / Date: HTS 08/24/2021
Checked by / Date: JMM 09/14/2021

Table 4
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO June 2014)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1] GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	BIW-1 Aug-11	BIW-1 Jan-12	BIW-1 Feb-12	BIW-1 Mar-12	BIW-1 Aug-12	BIW-1 Apr-13	BIW-1 Jun-13	BIW-1 Oct-13	BIW-1 Dec-13	BIW-1 Apr-14	BIW-1 Jun-14	BIW-2 Aug-11	BIW-2 Jan-12	BIW-2 Feb-12	BIW-2 Feb-12	BIW-2 Aug-12
Chlorinated Ethenes (ug/L)																		
Tetrachloroethene	30,000	100,000	20 U	20 U	10 U	3.1 J	20 U	20 U	20 U	20 U	40 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene (TCE)	5,000	50,000	**8,400**	**7,400**	4,600	4,400	4,600	1,100	1,200	3,300	**8,400**	3,200	2,600	90	24	18	21	23
cis-1,2-Dichloroethene	50,000	100,000	3,600	3,600	1,900	1,700	1,900	560	640	1,500	3,900	1,500	1,100	22	9.7	7.4	7.1	4.8 J
trans-1,2-Dichloroethene	50,000	100,000	22	41	14	14	25	20 U	24	20 U	40 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	30,000	100,000	5.9 J	5.0 J	3.8 J	10 U	20 U	20 U	20 U	20 U	40 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	50,000	100,000	510	580	540	630	630	77	76	610	1800	490	390	1.9 J	2.5 U	2.5 U	2.5 U	2.5 U
Chlorinated Ethanes (ug/L)																		
Chloroethane	NL	NL	40 U	40 U	20 U	20 U	40 U	40 U	40 U	40 U	80 U	100 U	100 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	50,000	100,000	10 U	10 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	20 U	25 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	20,000	100,000	20 U	20 U	10 U	10 U	20 U	20 U	20 U	20 U	40 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	50,000	100,000	20 U	20 U	10 U	10 U	20 U	20 U	20 U	20 U	40 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	20,000	100,000	20 U	20 U	10 U	10 U	20 U	20 U	20 U	20 U	40 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	20,000	100,000	20 U	20 U	10 U	10 U	20 U	20 U	20 U	20 U	40 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Other VOCs (ug/L)																		
2-Butanone	50,000	100,000	200 U	200 U	100 U	100 U	200 U	200 U	200 U	200 U	400 U	500 U	500 U	50 U	50 U	50 U	50 U	50 U
2-Chlorotoluene	NL	NL	20 U	20 U	10 U	10 U	20 U	20 U	20 U	20 U	40 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	NL	NL	20 U	20 U	10 U	10 U	20 U	20 U	20 U	20 U	40 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50,000	100,000	1,000 U*	1,000 U	500 U	500 U	1000 U	1000 UJ	1000 U	1000 U	2000 U	2500 U	2,500 U	250 U	250 U	250 U	250 U	250 U
Benzene	10,000	100,000	20 U	20 U	10 U	10 U	20 U	20 U	20 U	20 U	40 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	50,000	100,000	10 U	10 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	20 U	25.0 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Butylbenzene	NL	NL	20 U	20 U	10 U	10 U	20 U	20 U	20 U	20 U	40 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	NL	NL	200 U*	200 U	5.5 J	7.5 J	200 U	6.5 J	200 U	200 U	400 U	500 U	500 U	50 U	50 U	11 J	7.2 J	50 U
Carbon tetrachloride	5,000	50,000	20 U	20 U	10 U	10 U	20 U	20 U	20 U	20 U	40 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	1,000	10,000	20 U	20 U	10 U	10 U	20 U	20 U	20 U	20 U	40 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	20,000	100,000	20 U	20 U	10 U	10 U	20 U	20 U	20 U	20 U	40 U	50 U	50 U	4.5 J	1.6 J	1.3 J	5.0 U	5.0 U
Chloromethane	NL	NL	40 U	40 U	20 U	20 U	40 U	40 U	40 U	40 U	80 U	100 U	100 U	10 U	320	10 U	10 U	10 U
Ethylbenzene	5,000	100,000	20 U	20 U	2.0 J	2.1 J	20 U	20 U	20 U	20 U	40 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	50,000	100,000	40 U	40 U	20 U	20 U	42 U	20 U	10 J	20 U	40 U	50 U	44 J	10 U	10 U	10 U	10 U	10 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	20 U	20 U	10 U	10 U	20 U	20 U	20 U	20 U	40 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	40,000	100,000	32	20 U	23	24	21	20 U	20 U	20 U	40 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes, m,p-	5,000	100,000	40 U	40 U	20 U	20 U	40 U	40 U	40 U	40 U	80 U	100 U	100 U	10 U	10 U	10 U	10 U	10 U
Xylene, o-	5,000	100,000	20 U	20 U	2.1 J	2.5 J	20 U	20 U	20 U	20 U	40 U	50 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Metals, Total (ug/L)																		
Chromium	300	3,000	240	---	53	60	33	31	86	28	26	11	23	**1,300**	---	**530**	**340**	150
Hexavalent Chromium	300	3,000	5.0 U	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	11	5.0 U	5.0 U	5.0 U	50 U	---	5.0 U	1,000 U	5.0 U
Iron	NL	NL	---	13,000	---	6,800	---	---	---	---	---	---	---	140,000 B	31,000	---	6,200	---
Metals, Dissolved (ug/L)												---						
Chromium	300	3,000	240	---	---	---	---	---	---	---	---	---	---	**1,300**	---	---	---	---
Iron	NL	NL	---	4,200	---	5,300	---	---	---	---	---	---	---	75,000	25,000	---	6,300	---

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved

Table 4
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO June 2014)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BIW-2	BIW-2	BIW-2	BIW-2	BIW-2	BIW-2	BIW-4	BIW-4	BIW-4	BIW-4	BIW-4	BIW-4	BIW-4	BIW-4	BIW-4	BIW-4	BIW-5
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Apr-13	Jun-13	Oct-13	Dec-13	Apr-14	Jun-14	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Apr-13	Jun-13	Oct-13	Dec-13	Apr-14	Jun-14	Aug-11
Chlorinated Ethenes (ug/L)																				
Tetrachloroethene	30,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	10 U	1.5	2.4	3.0	1.0	200 U	100 U	100 U	100 U	400 U	400 U	100 U
Trichloroethene (TCE)	5,000	50,000	180	370	350	760	1,200	1,200	770	200	870	1,100	200	**8,600**	**6,100**	**5,800**	**21,000**	**17,000**	**17,000**	**35,000**
cis-1,2-Dichloroethene	50,000	100,000	27	38	28	120	190	160	47	54	100	130	41	580	420	490	1300	1000	1,100	2,100
trans-1,2-Dichloroethene	50,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	10 U	3.6	2.0	1.7 J	2.2	200 U	100 U	100 U	100 U	400 U	400 U	29 J
1,1-Dichloroethene	30,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	200 U	100 U	100 U	100 U	400 U	400 U	100 U
Vinyl chloride	50,000	100,000	2.0 U	8.0 U	8.0 U	23	7.7 J	20 U	5.0 U	0.50 U	0.50 U	1.0 U	0.50 U	200 U	100 U	100 U	140	400 U	400 U	400
Chlorinated Ethanes (ug/L)																				
Chloroethane	NL	NL	4 UJ	16 U	16 U	16 U	16 U	40 U	20 U	2.0 U	2.0 U	4.0 U	2 U	400 U	200 U	200 U	200 U	800 U	800 U	200 U
1,1,2,2-Tetrachloroethane	50,000	100,000	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	10 U	5.0 U	4.7	1.1	1.0 U	3.3	100 U	50 U	50 U	50 U	200 U	200 U	50 U
1,1,1-Trichloroethane	20,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	200 U	100 U	100 U	100 U	400 U	400 U	100 U
1,1,2-Trichloroethane	50,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	10 U	0.93 J	1.0 U	2.0 U	0.79 J	200 U	100 U	100 U	100 U	400 U	400 U	100 U
1,1-Dichloroethane	20,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	200 U	100 U	100 U	100 U	400 U	400 U	100 U
1,2-Dichloroethane	20,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	10 U	1.0 U	1.0 U	2.0 U	0.31 J	200 U	100 U	100 U	100 U	400 U	400 U	100 U
Other VOCs (ug/L)																				
2-Butanone	50,000	100,000	20 U	80 U	80 U	80 U	80 U	200 U	100 U	1.7 J	10 U	20 U	1.6 J	2000 U	1000 U	1000 U	1000 U	4,000 U	4,000 U	1,000 U
2-Chlorotoluene	NL	NL	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	200 U	100 U	100 U	100 U	400 U	400 U	100 U
4-Chlorotoluene	NL	NL	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	200 U	100 U	100 U	100 U	400 U	400 U	100 U
Acetone	50,000	100,000	100 UJ	400 U	400 U	400 U	400 U	1,000 U	500 U*	50 U	50 U	100 U	33 J	10,000 U	5,000 U	5,000 U	5,000 U	20,000 U	20,000 U	5,000 U*
Benzene	10,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	200 U	100 U	100 U	100 U	400 U	400 U	100 U
Bromodichloromethane	50,000	100,000	1.0 U	4.0 U	4.0 U	4.0 U	4.0 U	10 U	5.0 U	0.50 U	0.50 U	1.0 U	0.30 J	100 U	50 U	50 U	50 U	200 U	200 U	50 U
Butylbenzene	NL	NL	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	2.7 JB	0.94 J	1.0 U	2.0 U	0.27 J	200 U	100 U	100 U	100 U	400 U	400 U	100 U
Carbon disulfide	NL	NL	20 U	80 U	80 U	80 U	80 U	200 U	100 U*	3.5 J	3.4 J	1.7 J	10 J	2000 U	62 J	1000 U	1000 U	4,000 U	4,000 U	1,000 U*
Carbon tetrachloride	5,000	50,000	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	200 U	100 U	100 U	100 U	400 U	400 U	100 U
Chlorobenzene	1,000	10,000	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	200 U	100 U	100 U	100 U	400 U	400 U	100 U
Chloroform	20,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	2.5 J	1.6	0.97 J	0.60 J	1.3	200 U	100 U	100 U	100 U	400 U	400 U	100 U
Chloromethane	NL	NL	4.0 U	16 U	16 U	16 U	16 U	40 U	20 U	4.9	2.0 U	4.0 U	8.1	400 U	200 U	200 U	200 U	800 U	800 U	200 U
Ethylbenzene	5,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	10 U	0.46 J	1.3	1.3 J	1.0 U	200 U	100 U	100 U	100 U	400 U	400 U	100 U
Methylene chloride	50,000	100,000	2.0 U	4.1 J	8.0 U	8.0 U	8.0 U	16 J	20 U	1.7 J	1.7 J	4.0 U	20 U	130 J	100 U	100 U	100 U	400 U	340 J	200 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	10 U	1.0 U	1.0 U	2.0 U	1.0 U	200 U	100 U	100 U	100 U	400 U	400 U	100 U
Toluene	40,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	3.1 J	2.5	7.4	8.1	1.8	200 U	100 U	100 U	100 U	400 U	400 U	33 J
Xylenes, m,p-	5,000	100,000	4.0 U	16 U	16 U	16 U	16 U	40 U	20 U	0.94 J	4.5	4.8	0.67 J	400 U	200 U	200 U	200 U	800 U	800 U	200 U
Xylene, o-	5,000	100,000	2.0 U	8.0 U	8.0 U	8.0 U	8.0 U	20 U	10 U	0.42 J	1.9	2.1	0.25 J	200 U	100 U	100 U	100 U	400 U	400 U	100 U
Metals, Total (ug/L)																				
Chromium	300	3,000	80	110	71	65	25	52	**13,000**	---	**2,300**	**1,500**	**4,300**	290	280	**320**	170	86	120	75
Hexavalent Chromium	300	3,000	5.0 U	5.0 U	6.7	5.0 U	5.0 U	5.0 U	50 U	---	5.0 U	5.0 U	5.0 U	250 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Iron	NL	NL	---	---	---	---	---	---	---	33,000	---	5,900	---	---	---	---	---	---	---	---
Metals, Dissolved (ug/L)							---											---		
Chromium	300	3,000	---	---	---	---	---	---	**14,000**	---	---	---	---	---	---	---	---	---	---	54
Iron	NL	NL	---	---	---	---	---	---	---	27,000	---	6,000	---	---	---	---	---	---	---	---

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved

Table 4
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO June 2014)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BIW-5	BIW-5	BIW-5	BIW-5	BIW-5	BIW-5	BIW-5	BIW-5	BIW-5	BIW-5	BIW-6	BIW-6	BIW-6	BIW-6	BIW-6	BIW-6	BIW-6
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Jan-12	Feb-12	Mar-12	Aug-12	Apr-13	Jun-13	Oct-13	Dec-13	Apr-14	Jun-14	Dec-10	Feb-11	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12
Chlorinated Ethenes (ug/L)																			
Tetrachloroethene	30,000	100,000	5.7	5.8 J	8.7 J	100 U	20 U	10 U	10 U	10 U	100 U	200 U	27 J	4.0 U	250 U	50 U	16 J	21 J	11 J
Trichloroethene (TCE)	5,000	50,000	1,100	1,600 J	**5,500**	**18,000**	1,200	680	670	**5,100**	**12,000**	**17,000**	**72,000**	2.3 J	**130,000**	**12,000**	**41,000**	**51,000**	**14,000**
cis-1,2-Dichloroethene	50,000	100,000	180	170 J	510	1,900	98	50	58	360	1,100	1,400	1,700	4.0 U	1,500	270	980	1,300	560
trans-1,2-Dichloroethene	50,000	100,000	25	26 J	47	100 U	20 U	10 U	10 U	37	100 U	200 U	100 U	4.0 U	250 U	50 U	50 U	50 U	56
1,1-Dichloroethene	30,000	100,000	5.0 U	5.0 UJ	20 U	100 U	20 U	10 U	10 U	10 U	100 U	200 U	100 U	4.0 U*	250 U	50 U	50 U	50 U	50 U
Vinyl chloride	50,000	100,000	4.3	4.9 J	10 U	420	20 U	10 U	10 U	68	250	320	99	2.0 U	180	27	120	190	25 U
Chlorinated Ethanes (ug/L)																			
Chloroethane	NL	NL	4.6 J	5.6 J	40 U	200 U	40 U	7.6 J	20 U	20 U	200 U	400 U	200 U	8.0 U	500 U	100 U	100 U	100 U	100 U
1,1,2,2-Tetrachloroethane	50,000	100,000	140	130 J	78	50 U	33	60	45	58	50 U	100 U	50 U	16	130 U	85	27	24 J	290
1,1,1-Trichloroethane	20,000	100,000	5.0 U	5.0 UJ	20 U	100 U	20 U	10 U	10 U	10 U	100 U	200 U	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U
1,1,2-Trichloroethane	50,000	100,000	30	21 J	6.8 J	100 U	32	14	7.5 J	7.3 J	100 U	200 U	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U
1,1-Dichloroethane	20,000	100,000	5.0 U	5.0 UJ	20 U	100 U	20 U	10 U	10 U	10 U	100 U	200 U	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U
1,2-Dichloroethane	20,000	100,000	14	14 J	20 U	100 U	64	29	15	12	100 U	200 U	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U
Other VOCs (ug/L)																			
2-Butanone	50,000	100,000	50 U	50 UJ	200 U	1,000 U	200 U	100 U	100 U	100 U	1000 U	2,000 U	1,000 U	33 J*	2500 U	500 U	500 U	500 U	500 U
2-Chlorotoluene	NL	NL	5.0 U	5.0 UJ	20 U	100 U	20 U	10 U	10 U	10 U	100 U	200 U	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U
4-Chlorotoluene	NL	NL	5.0 U	5.0 UJ	20 U	100 U	20 U	10 U	10 U	10 U	100 U	200 U	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U
Acetone	50,000	100,000	250 U	250 UJ	1,000 U	5,000 U	60 J	54 J	500 U	500 U	5,000 U	10,000 U	5,000 U	210 *	13,000 U*	2,500 U	2,500 U	2,500 U	2,500 U
Benzene	10,000	100,000	5.0 U	5.0 UJ	20 U	100 U	20 U	10 U	10 U	10 U	100 U	200 U	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U
Bromodichloromethane	50,000	100,000	2.5 U	2.5 UJ	10 U	50 U	10 U	5.0 U	5.0 U	5.0 U	50 U	100 U	100 U	2.0 U	130 U	25 U	25 U	25 U	25 U
Butylbenzene	NL	NL	5.0 U	5.0 UJ	20 U	100 U	20 U	10 U	10 U	10 U	100 U	200 U	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U
Carbon disulfide	NL	NL	70	63 J	31 J	1,000 U	39 J	33 J	26 J	29 J	27 J	2,000 U	1,000 U	1.8 J*	2,500 U*	35 J	110 J	64 J	130 J
Carbon tetrachloride	5,000	50,000	5.0 U	5.0 UJ	20 U	100 U	20 U	10 U	10 U	10 U	100 U	200 U	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U
Chlorobenzene	1,000	10,000	5.0 U	5.0 UJ	20 U	100 U	20 U	10 U	10 U	10 U	100 U	200 U	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U
Chloroform	20,000	100,000	28	19 J	20 U	100 U	42	27	14	11	100 U	200 U	100 U	10	250 U	50 U	50 U	50 U	50 U
Chloromethane	NL	NL	150	49 J	15 J	200 U	1000	730	380	330	84 J	92 J	200 U	59	500 U	140	100 U	47 J	40 J
Ethylbenzene	5,000	100,000	5.0 U	5.0 UJ	20 U	100 U	20 U	10 U	10 U	10 U	100 U	200 U	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U
Methylene chloride	50,000	100,000	210	90 J	24 J	200 U	390	230	130	100	100 U	160 J	200 U	18	500 U	100 U	100 U	100 U	100 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	5.0 U	5.0 UJ	20 U	100 U	20 U	10 U	10 U	10 U	100 U	200 U	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U
Toluene	40,000	100,000	5.0 U	5.0 UJ	20 U	31 J	20 U	10 U	10 U	10 U	100 U	200 U	55 J	4.0 U	1400	50 U	140	160	50 U
Xylenes, m,p-	5,000	100,000	10 U	4.0 UJ	40 U	200 U	40 U	20 U	20 U	20 U	200 U	400 U	200 U	8.0 U	500 U	100 U	100 U	100 U	100 U
Xylene, o-	5,000	100,000	5.0 U	5.0 UJ	20 U	100 U	20 U	10 U	10 U	10 U	100 U	200 U	100 U	4.0 U	250 U	50 U	50 U	50 U	50 U
Metals, Total (ug/L)																			
Chromium	300	3,000	---	20	**430**	**1,200**	**3,100**	**2,600**	**1,600**	**480**	**470**	**440**	---	---	6.9 J	---	200	200	24 J
Hexavalent Chromium	300	3,000	---	500 U	5.0 U	**630**	250 U	500 U	250 U	**510**	240	210	---	---	5.0 U	---	30	5.0 U	250 U
Iron	NL	NL	460,000	---	12,000	---	---	---	---	---	---	---	---	---	61,000 B	2,200,000	---	430,000	---
Metals, Dissolved (ug/L)											---								
Chromium	300	3,000	---	---	---	---	**2900**	---	---	---	---	---	---	---	5.3 J	---	---	---	---
Iron	NL	NL	380,000	---	1,900	---	---	---	---	---	---	---	---	---	55000	2000000	---	430000	---

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved

Table 4
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO June 2014)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BIW-6	BIW-6	BIW-6	BIW-6	BIW-6	BIW-6	BIW-7	BIW-7	BIW-7	BIW-7	BIW-7	BIW-7	BIW-7	BIW-7	BIW-7
	GW-3 MCP	UCL GW MCP	Apr-13	Jun-13	Oct-13	Dec-13	Apr-14	Jun-14	Dec-10	Feb-11	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Apr-13	Jun-13	Oct-13
	(ug/L)	(ug/L)																
Chlorinated Ethenes (ug/L)																		
Tetrachloroethene	30,000	100,000	80 U	80 U	800 U	800 U	800 U	800 U	100 U	4.0 U	100 U	20 U	100 U	12 J	100 U	20 U	20 U	200 U
Trichloroethene (TCE)	5,000	50,000	**5,600**	**43,000**	**58,000**	**80,000**	**53,000**	**53,000**	**57,000**	140	**41,000**	4,400	**46,000**	**51,000**	**30,000**	1,100	**12,000**	**20,000**
cis-1,2-Dichloroethene	50,000	100,000	270	2,300	2,300	2,900	2,600	2,400	2,100	2.8 J	1,200	150	1,700	2,100	1,100	48	400	750
trans-1,2-Dichloroethene	50,000	100,000	80 U	80 U	800 U	800 U	800 U	800 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	20 U	35	200 U
1,1-Dichloroethene	30,000	100,000	80 U	80 U	800 U	800 U	800 U	800 U	100 U	4.0 U*	100 U	20 U	100 U	50 U	100 U	20 U	20 U	200 U
Vinyl chloride	50,000	100,000	80 U	440	800 U	800 U	800 U	800 U	210	5.0 U	87	14	200	240	99	20 U	29	200 U
Chlorinated Ethanes (ug/L)																		
Chloroethane	NL	NL	160 U	160 U	1,600 U	1,600 U	1,600 U	1,600 U	200 U	4.6 J	200 U	40 U	200 U	100 U	200 U	40 U	40 U	400 U
1,1,2,2-Tetrachloroethane	50,000	100,000	82	40 U	400 U	400 U	400 U	400 U	50 U	56	50 U	190	30 J	13 J	29 J	130	150	180
1,1,1-Trichloroethane	20,000	100,000	80 U	80 U	800 U	800 U	800 U	800 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	20 U	20 U	200 U
1,1,2-Trichloroethane	50,000	100,000	34 J	80 U	800 U	800 U	800 U	800 U	100 U	7.0 J	100 U	14 J	100 U	50 U	100 U	30	20	200 U
1,1-Dichloroethane	20,000	100,000	80 U	80 U	800 U	800 U	800 U	800 U	100 U	10 U	100 U	20 U	100 U	50 U	100 U	20 U	20 U	200 U
1,2-Dichloroethane	20,000	100,000	80 U	80 U	800 U	800 U	800 U	800 U	100 U	17	100 U	8.8 J	100 U	50 U	100 U	19 J	15 J	200 U
Other VOCs (ug/L)																		
2-Butanone	50,000	100,000	800 U	800 U	8,000 U	8,000 U	8000 U	8,000 U	1,000 U	40 U*	1,000 U	200 U	1,000 U	5,00 U	1,000 U	200 U	200 U	2000 U
2-Chlorotoluene	NL	NL	80 U	80 U	800 U	800 U	800 U	800 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	20 U	20 U	200 U
4-Chlorotoluene	NL	NL	80 U	80 U	800 U	800 U	800 U	800 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	20 U	20 U	200 U
Acetone	50,000	100,000	4000 UJ	4000 U	40,000 U	40,000 U	40,000 U	40,000 U	5,000 U	500 U*	5,000 U	1,000 U	5,000 U	2,500 U	5,000 U	1,000 UJ	1,000 U	10,000 U
Benzene	10,000	100,000	80 U	80 U	800 U	800 U	800 U	800 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	20 U	20 U	200 U
Bromodichloromethane	50,000	100,000	40 U	40 U	400 U	400 U	400 U	400 U	100 U	5.0 U	50 U	10 U	50 U	25 U	50 U	10 U	10 U	100 U
Butylbenzene	NL	NL	80 U	80 U	800 U	800 U	800 U	800 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	20 U	20 U	200 U
Carbon disulfide	NL	NL	61 J	37 J	8,000 U	8,000 U	8,000 U	8,000 U	1,000 U	29 J*	35 J*	32 J	25 J	19 J	58 J	25 J	63 J	2,000 U
Carbon tetrachloride	5,000	50,000	80 U	80 U	800 U	800 U	800 U	800 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	20 U	20 U	200 U
Chlorobenzene	1,000	10,000	80 U	80 U	800 U	800 U	800 U	800 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	20 U	20 U	200 U
Chloroform	20,000	100,000	45 J	80 U	800 U	800 U	800 U	800 U	100 U	49	100 U	40	100 U	50 U	100 U	140	87	73 J
Chloromethane	NL	NL	510	47 J	1,600 U	1,600 U	1600 U	1,600 U	200 U	410	200 U	500	78 J	28 J	63 J	670	420	370 J
Ethylbenzene	5,000	100,000	80 U	80 U	800 U	800 U	800 U	800 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	20 U	20 U	200 U
Methylene chloride	50,000	100,000	340	98	800 U	800 U	800 U	750 J	200 U	270	200 U	150	200 U	100 U	200 U	570	390	280
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	80 U	80 U	800 U	800 U	800 U	800 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	20 U	20 U	200 U
Toluene	40,000	100,000	80 U	78 J	800 U	800 U	800 U	800 U	130	4.0 U	67 J	6.3 J	48 J	62	44 J	20 U	20 U	200 U
Xylenes, m,p-	5,000	100,000	160 U	160 U	1,600 U	1,600 U	1,600 U	1,600 U	200 U	8.0 U	200 U	40 U	200 U	100 U	200 U	40 U	40 U	400 U
Xylene, o-	5,000	100,000	80 U	80 U	800 U	800 U	800 U	800 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 U	20 U	20 U	200 U
Metals, Total (ug/L)																		
Chromium	300	3,000	240	64	34	15	9.4	9.6	---	---	0.86 J	---	76 B	56	0.95 J	160	94	71
Hexavalent Chromium	300	3,000	250 U	250 U	**430**	5.0 U	5.0 U	5.0 U	---	---	5.0 U	---	2,500 U	5.0 U	5.0 U	250 U	250 U	500 U
Iron	NL	NL	---	---	---	---	---	---	---	---	1100	2100000	---	100000	---	---	---	---
Metals, Dissolved (ug/L)							---											
Chromium	300	3,000	---	---	---	---	---	---	---	---	10 U	---	---	---	---	140	---	---
Iron	NL	NL	---	---	---	---	---	---	---	---	350	2,000,000	---	95,000	---	---	---	---

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved

Table 4
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO June 2014)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BIW-7	BIW-7	BIW-7	BIW-14	BIW-14	BIW-14	BIW-14	BIW-14	BIW-14	BIW-14	BIW-14	BIW-14	BIW-14	BIW-14	BIW-14	BIW-15	BIW-15
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Dec-13	Apr-14	Jun-14	Dec-10	Feb-11	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Apr-13	Jun-13	Oct-13	Dec-13	Apr-14	Jun-14	Dec-10	Feb-11
Chlorinated Ethenes (ug/L)																				
Tetrachloroethene	30,000	100,000	200 U	400 U	400 U	20 J	4.0 U	33 J	12 J	50 U	12 J	10 J	40 U	80 U	80 U	200 U	200 U	200 U	44 J	4.0 U
Trichloroethene (TCE)	5,000	50,000	**24,000**	**20,000**	**25,000**	**42,000**	5.9 J	**49,000**	**17,000**	**16,000**	**21,000**	**14,000**	4,800	**7,300**	**22,000**	**15,000 J**	**10,000**	**11,000**	**92,000**	5.4
cis-1,2-Dichloroethene	50,000	100,000	930	1,000	1,100	980	4.0 U	1,500	1,100	650	650	760	120	350	530	360	310	320	1400	4.0 U
trans-1,2-Dichloroethene	50,000	100,000	200 U	400 U	400 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	40 U	80 U	80 U	200 U	200 U	200 U	100 U	4.0 U
1,1-Dichloroethene	30,000	100,000	200 U	400 U	400 U	50 U	4.0 U*	100 U	50 U	50 U	50 U	50 U	40 U	80 U	80 U	200 U	200 U	200 U	100 U	4.0 U*
Vinyl chloride	50,000	100,000	200 U	400 U	400 U	25 U	5.0 U	230	300	75	25 U	61	40 U	80 U	80 U	200 U	200 U	200 U	42 J	5.0 U
Chlorinated Ethanes (ug/L)																				
Chloroethane	NL	NL	400 U	800 U	800 U	100 U	8.0 U	200 U	100 U	100 U	100 U	100 U	80 U	160 U	160 U	400 U	400 U	400 U	200 U	8.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	100 U	200 U	110 J	25 U	5.0 U	50 U	20 J	25 U	25 U	33	24	75	19 J	100 U	100 U	100 U	50 U	5.0 U
1,1,1-Trichloroethane	20,000	100,000	200 U	400 U	400 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	40 U	80 U	80 U	200 U	200 U	200 U	100 U	4.0 U
1,1,2-Trichloroethane	50,000	100,000	200 U	400 U	400 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	40 U	80 U	80 U	200 U	200 U	200 U	100 U	4.0 U
1,1-Dichloroethane	20,000	100,000	200 U	400 U	400 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	40 U	80 U	80 U	200 U	200 U	200 U	100 U	4.0 U
1,2-Dichloroethane	20,000	100,000	200 U	400 U	400 U	50 U	4.0 U	100 U	16 J	50 U	50 U	50 U	40 U	80 U	80 U	200 U	200 U	200 U	100 U	4.0 U
Other VOCs (ug/L)																				
2-Butanone	50,000	100,000	2000 U	4,000 U	4,000 U	500 U	40 U*	1,000 U	500 U	500 U	500 U	500 U	400 U	800 U	800 U	2,000 U	2,000 U	2,000 U	1,000 U	40 U*
2-Chlorotoluene	NL	NL	200 U	400 U	400 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	40 U	80 U	80 U	200 U	200 U	200 U	100 U	4.0 U
4-Chlorotoluene	NL	NL	200 U	400 U	400 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	40 U	80 U	80 U	200 U	200 U	200 U	100 U	4.0 U
Acetone	50,000	100,000	10,000 U	20,000 U	20,000 U	2,500 U	380 J*	5,000 U	2,500 U	2,500 U	2,500 U	2,500 U	2000 UJ	4,000 U	4,000 U	10,000 U	10,000 U	10,000 U	5,000 U	370 J*
Benzene	10,000	100,000	200 U	400 U	400 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	40 U	80 U	80 U	200 U	200 U	200 U	100 U	4.0 U
Bromodichloromethane	50,000	100,000	100 U	200 U	200 U	50 U	5.0 U	50 U	25 U	25 U	25 U	25 U	20 U	40 U	40 U	100 U	100 U	100 U	100 U	5.0 U
Butylbenzene	NL	NL	200 U	400 U	400 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	40 U	80 U	80 U	200 U	200 U	200 U	100 U	4.0 U
Carbon disulfide	NL	NL	2,000 U	4,000 U	4,000 U	500 U	40 U*	1,000 U	38 J	26 J	18 J	44 J	16 J	75 J	800 U	20,00 UJ	2,000 U	2,000 U	1,000 U	40 U*
Carbon tetrachloride	5,000	50,000	200 U	400 U	400 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	40 U	80 U	80 U	200 U	200 U	200 U	100 U	4.0 U
Chlorobenzene	1,000	10,000	200 U	400 U	400 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	40 U	80 U	80 U	200 U	200 U	200 U	100 U	4.0 U
Chloroform	20,000	100,000	200 U	400 U	400 U	50 U	15	100 U	25 J	50 U	50 U	24 J	40 U	36 J	80 U	200 U	200 U	200 U	100 U	6.6 J
Chloromethane	NL	NL	400 U	800 U	800 U	100 U	67	200 U	1,000	210	47 J	200	350	320	60 J	400 U	400 U	400 U	200 U	41
Ethylbenzene	5,000	100,000	200 U	400 U	400 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	40 U	80 U	80 U	200 U	200 U	200 U	100 U	4.0 U
Methylene chloride	50,000	100,000	200 U	400 U	360 J	100 U	15 J	200 U	460	92 J	100 U	89 J	220	200	48 J	200 U	200 U	150 J	200 U	19 J
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	200 U	400 U	400 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	40 U	80 U	80 U	200 U	200 U	200 U	100 U	4.0 U
Toluene	40,000	100,000	200 U	400 U	400 U	40 J	4.0 U	450	80	50 U	15 J	50 U	40 U	80 U	80 U	200 U	200 U	200 U	810	4.0 U
Xylenes, m,p-	5,000	100,000	400 U	800 U	800 U	100 U	8.0 U	200 U	100 U	100 U	100 U	100 U	80 U	160 U	160 U	400 U	400 U	400 U	200 U	8.0 U
Xylene, o-	5,000	100,000	200 U	400 U	400 U	50 U	4.0 U	100 U	50 U	50 U	50 U	50 U	40 U	80 U	80 U	200 U	200 U	200 U	100 U	4.0 U
Metals, Total (ug/L)																				
Chromium	300	3,000	7	2.7 J	26	---	---	180	---	**1,300**	270	**1,400**	**620**	**820**	69	12	14	6.1	---	---
Hexavalent Chromium	300	3,000	5.0 U	5.0 U	5.0 U	---	---	190	---	250 U	5.0 U	2.5 U	250 U	500 U	5.0 U	5.0 U	5.0 U	5.0 U	---	---
Iron	NL	NL	---	---	---	---	---	---	2,300,000	---	37,000	---	---	---	---	---	---	---	---	---
Metals, Dissolved (ug/L)				---													---			
Chromium	300	3,000	---	---	---	---	---	220	---	---	---	---	**530**	---	---	---	---	---	---	---
Iron	NL	NL	---	---	---	---	---	---	2,300,000	---	34,000	---	---	---	---	---	---	---	---	---

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved

Table 4
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO June 2014)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BIW-15	BIW-15	BIW-15	BIW-15	BIW-15	BIW-15	BIW-15	BIW-15	BIW-15	BIW-15	BIW-16	BIW-16	BIW-16	BIW-16	BIW-16	BIW-16
	GW-3 MCP	UCL GW MCP	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Apr-13	Jun-13	Oct-13	Dec-13	Apr-14	Jun-14	Dec-10	Feb-11	Aug-11	Jan-12	Feb-12	Mar-12
	(ug/L)	(ug/L)																	
Chlorinated Ethenes (ug/L)																			
Tetrachloroethene	30,000	100,000	200 U	27 J	36 J	35 J	43 J	200 U	42 J	20 U	26	250 U	250 U	100 U	4.0 J	100 U	250 U	200 U	200 U
Trichloroethene (TCE)	5,000	50,000	**74,000**	**45,000**	**71,000**	**79,000**	**69,000**	**7,800**	**5,700**	680	**27,000**	**14,000**	**21,000**	**56,000**	4,700	**37,000**	**64,000**	**74,000**	**91,000**
cis-1,2-Dichloroethene	50,000	100,000	590	650	960	980	480	260	86 J	17 J	420	200 J	420	77 J	10 U	100 U	84 J	46 J	77 J
trans-1,2-Dichloroethene	50,000	100,000	200 U	100 U	100 U	100 U	100 U	200 U	100 U	20 U	25	250 U	250 U	100 U	10 U	100 U	250 U	200 U	200 U
1,1-Dichloroethene	30,000	100,000	100 U	100 U	100 U	100 U	100 U	200 U	100 U	20 U	20 U	250 U	250 U	100 U	10 U*	100 U	250 U	200 U	200 U
Vinyl chloride	50,000	100,000	100 U	28 J	45 J	46 J	50 U	200 U	100 U	20 U	20 U	250 U	250 U	50 U	5.0 U	50 U	130 U	100 U	100 U
Chlorinated Ethanes (ug/L)																			
Chloroethane	NL	NL	400 U	200 U	200 U	200 U	200 U	400 U	200 U	40 U	40 U	500 U	500 U	200 U	20 U	200 U	500 U	400 U	400 U
1,1,2,2-Tetrachloroethane	50,000	100,000	100 U	86	46 J	35 J	130	1500	1200	1100	500	860	68 J	50 U	270	50 U	130 U	100 U	100 U
1,1,1-Trichloroethane	20,000	100,000	200 U	100 U	100 U	100 U	100 U	200 U	100 U	20 U	20 U	250 U	250 U	100 U	10 U	100 U	250 U	200 U	200 U
1,1,2-Trichloroethane	50,000	100,000	200 U	21 J	100 U	100 U	100 U	310.0	110.0	72	34	250 U	250 U	100 U	4.5 J	100 U	250 U	200 U	200 U
1,1-Dichloroethane	20,000	100,000	200 U	100 U	100 U	100 U	100 U	200 U	100 U	20 U	20 U	250 U	250 U	100 U	10 U	100 U	250 U	200 U	200 U
1,2-Dichloroethane	20,000	100,000	200 U	100 U	100 U	100 U	100 U	120 J	100 U	26	13 J	250 U	250 U	100 U	10 U	100 U	250 U	200 U	200 U
Other VOCs (ug/L)																			
2-Butanone	50,000	100,000	2,000 U	1,000 U	1,000 U	1,000 U	1,000 UJ	2000 U	1000 U	200 U	200 U	2500 U	2,500 U	1,000 U	100 U*	1,000 U	2,500 U	2,000 U	2,000 U
2-Chlorotoluene	NL	NL	200 U	100 U	100 U	100 U	100 U	200 U	100 U	20 U	20 U	250 U	250 U	100 U	10 U	100 U	250 U	200 U	200 U
4-Chlorotoluene	NL	NL	200 U	100 U	100 U	100 U	100 U	200 U	100 U	20 U	20 U	250 U	250 U	100 U	10 U	100 U	250 U	200 U	200 U
Acetone	50,000	100,000	10,000 U	5,000 U	5,000 U	5,000 U	5,000 U	10,000 UJ	5,000 UJ	77 J	1,000 U	13,000 U	13,000 U	5,000 UJ	500 U*	5,000 U	13,000 U	10,000 U	10,000 U
Benzene	10,000	100,000	200 U	100 U	100 U	100 U	100 U	200 U	100 U	20 U	20 U	250 U	250 U	100 U	10 U	100 U	250 U	200 U	200 U
Bromodichloromethane	50,000	100,000	100 U	50 U	50 U	50 U	50 U	100 U	50 U	10 U	10 U	130 U	130 U	100 U	5.0 U	50 U	130 U	100 U	100 U
Butylbenzene	NL	NL	200 U	100 U	100 U	100 U	100 U	200 U	100 U	20 U	20 U	250 U	250 U	100 U	10 U	100 U	250 U	200 U	200 U
Carbon disulfide	NL	NL	54 J	1,000 U	72 J	82 J	200 J	2000 U	140 J	60 J	50 J	84 J	2,500 U	1,000 U	86 J*	1,000 U*	2,500 U	2,000 U	2,000 U
Carbon tetrachloride	5,000	50,000	200 U	100 U	100 U	100 U	100 U	200 U	100 U	20 U	20 U	250 U	250 U	100 U*	10 U	100 U	250 U	200 U	200 U
Chlorobenzene	1,000	10,000	200 U	100 U	100 U	100 U	100 U	200 U	100 U	20 U	20 U	250 U	250 U	100 U	10 U	100 U	250 U	200 U	200 U
Chloroform	20,000	100,000	200 U	76 J	37 J	25 J	81 J	2200	710	470	190	250	250 U	100 U	54	100 U	250 U	200 U	200 U
Chloromethane	NL	NL	400 U	720	240	180 J	170 J	2800	830	470	200	180 J	500 U	200 U	230	200 U	71 J	400 U	400 U
Ethylbenzene	5,000	100,000	200 U	100 U	100 U	100 U	100 U	200 U	100 U	20 U	20 U	250 U	250 U	100 U	10 U	100 U	250 U	200 U	200 U
Methylene chloride	50,000	100,000	400 U	440	200	140 J	510	4800	1300	1100	460	500	240 J	200 U	140	200 U	500 U	400 U	400 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	200 U	100 U	100 U	100 U	100 U	200 U	100 U	20 U	20 U	250 U	250 U	100 U	10 U	100 U	250 U	200 U	200 U
Toluene	40,000	100,000	1,600	1,300	1,800	1,900	66 J	200 U	100 U	20 U	44	250 U	250 U	300	10 U	260	250 U	200 U	200 U
Xylenes, m,p-	5,000	100,000	400 U	200 U	200 U	200 U	200 U	400 U	200 U	40 U	40 U	500 U	500 U	200 U	20 U	200 U	500 U	400 U	400 U
Xylene, o-	5,000	100,000	200 U	100 U	100 U	100 U	100 U	200 U	100 U	20 U	20 U	250 U	250 U	100 U	10 U	100 U	250 U	200 U	200 U
Metals, Total (ug/L)																			
Chromium	300	3,000	140	---	**330 B**	240	**430**	**590**	**440**	**320**	130	180	11	---	---	**480**	---	43	50
Hexavalent Chromium	300	3,000	68	---	500 U	250 U	5,000 U	250 U	250 U	**840**	50 U	130 U	5.0 U	---	---	**600**	---	5.0 U	5.0 U
Iron	NL	NL	---	2,200,000	---	520,000	---	---	---	---	---	---	---	---	---	---	28000	---	3,700
Metals, Dissolved (ug/L)												---							
Chromium	300	3,000	130	---	---	---	---	**560**	---	---	---	---	---	---	---	**610**	---	---	---
Iron	NL	NL	---	2,000,000	---	550,000	---	---	---	---	---	---	---	---	---	---	26000	---	3,100

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved

Table 4
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO June 2014)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BIW-16	BIW-16	BIW-16	BIW-16	BIW-16	BIW-16	BIW-16	BIW-24	BIW-24	BIW-24	BIW-24	BIW-24	BIW-24	BIW-24	BIW-24
	GW-3 MCP	UCL GW MCP	Aug-12	Apr-13	Jun-13	Oct-13	Dec-13	Apr-14	Jun-14	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Apr-13	Jun-13	Oct-13
	(ug/L)	(ug/L)															
Chlorinated Ethenes (ug/L)																	
Tetrachloroethene	30,000	100,000	25 U	400 U	400 U	130 U	130 U	400 U	400 U	10 U	2.4 J	2.0 J	3.1 J	6.1 J	5.0 U	2.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	**9,300**	**34,000 J**	**51,000**	**9,700**	**22,000**	**36,000**	**20,000**	1,800	2,000	2,400	1,200	**6,100**	8	22	40
cis-1,2-Dichloroethene	50,000	100,000	6.3 J	400 U	400 U	130 U	130 U	400 U	400 U	310	550	530	510	900	5.0 U	2.9	5.3
trans-1,2-Dichloroethene	50,000	100,000	25 U	400 U	400 U	130 U	130 U	400 U	400 U	4.1 J	6	4.8 J	6.1 J	10 J	5.0 U	2.0 U	1.0 U
1,1-Dichloroethene	30,000	100,000	25 U	400 U	400 U	130 U	130 U	400 U	400 U	10 U	5.0 U	5.0 U	10 U	20 U	5.0 U	2.0 U	1.0 U
Vinyl chloride	50,000	100,000	13 U	400 U	400 U	130 U	130 U	400 U	400 U	5.0 U	2.5 U	2.5 U	5.0 U	240	5.0 U	2.0 U	1.0 U
Chlorinated Ethanes (ug/L)																	
Chloroethane	NL	NL	50 U	800 U	800 U	250 U	250 U	800 U	800 U	20 U	10 U	10 U	20 U	40 U	10 UJ	4.0 U	1.0 J
1,1,2,2-Tetrachloroethane	50,000	100,000	13 U	200 U	200 U	63 U	63 U	200 U	200 U	5.0 U	1.7 J	1.7 J	5.0 U	10 U	7	3.1	0.50 U
1,1,1-Trichloroethane	20,000	100,000	25 U	400 U	400 U	130 U	130 U	400 U	400 U	10 U	5.0 U	5.0 U	10 U	20 U	5.0 U	2.0 U	1.0 U
1,1,2-Trichloroethane	50,000	100,000	25 U	400 U	400 U	130 U	130 U	400 U	400 U	10 U	5.0 U	5.0 U	10 U	20 U	4.8 J	1.6 J	0.91 J
1,1-Dichloroethane	20,000	100,000	25 U	400 U	400 U	130 U	130 U	400 U	400 U	10 U	5.0 U	5.0 U	10 U	20 U	5.0 U	2.0 U	1.0 U
1,2-Dichloroethane	20,000	100,000	25 U	400 U	400 U	130 U	130 U	400 U	400 U	10 U	5.0 U	5.0 U	10 U	20 U	4.8 J	2.9	1.7
Other VOCs (ug/L)																	
2-Butanone	50,000	100,000	250 U	4000 U	4000 U	1300 U	1300 U	4,000 U	4,000 U	100 U	50 U	50 U	100 U	200 U	50 U	20 U	10 U
2-Chlorotoluene	NL	NL	25 U	400 U	400 U	130 U	130 U	400 U	400 U	10 U	5.0 U	5.0 U	10 U	20 U	5.0 U	2.0 U	1.0 U
4-Chlorotoluene	NL	NL	25 U	400 U	400 U	130 U	130 U	400 U	400 U	10 U	5.0 U	5.0 U	10 U	20 U	5.0 U	2.0 U	1.0 U
Acetone	50,000	100,000	1,300 U	20,000 UJ	20,000 U	6,300 U	6,300 U	20,000 U	20,000 U	500 U*	250 U	250 U	500 U	1,000 U	37 J	18 J	19 J
Benzene	10,000	100,000	25 U	400 U	400 U	130 U	130 U	400 U	400 U	10 U	5.0 U	5.0 U	10 U	20 U	5.0 U	2.0 U	1.0 U
Bromodichloromethane	50,000	100,000	13 U	200 U	200 U	63 U	63 U	200 U	200 U	5.0 U	2.5 U	2.5 U	5.0 U	10 U	2.5 U	1.0 U	0.50 U
Butylbenzene	NL	NL	25 UJ	400 U	400 U	130 U	130 U	400 U	400 U	10 U	5.0 U	5.0 U	10 U	20 U	5.0 U	2.0 U	1.0 U
Carbon disulfide	NL	NL	7.6 J	4,000 U	4,000 U	1,300 U	1,300 U	4,000 U	4,000 U	5.5 J*	5.6 J	8.1 J	10 J	9.4 J	3.2 J	9.1 J	9.3 J
Carbon tetrachloride	5,000	50,000	25 U	400 U	400 U	130 U	130 U	400 U	400 U	10 U	5.0 U	5.0 U	10 U	20 U	5.0 U	2.0 U	1.0 U
Chlorobenzene	1,000	10,000	25 U	400 U	400 U	130 U	130 U	400 U	400 U	10 U	5.0 U	5.0 U	10 U	20 U	5.0 U	2.0 U	1.0 U
Chloroform	20,000	100,000	25 U	400 U	400 U	130 U	130 U	400 U	400 U	2.0 J	5.0 U	5.0 U	10 U	20 U	9.5	5.8	8.9
Chloromethane	NL	NL	50 U	800 U	800 U	250 U	250 U	800 U	800 U	20 U	10 U	10 U	20 U	40 U	68	53	46
Ethylbenzene	5,000	100,000	25 U	400 U	400 U	130 U	130 U	400 U	400 U	10 U	5.0 U	5.0 U	10 U	20 U	5.0 U	2.0 U	1.0 U
Methylene chloride	50,000	100,000	61 U	260 J	270 J	130 U	130 U	400 U	360 J	20 U	10 U	10 U	20 U	40 U	24	9.9	8.3
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	25 U	400 U	400 U	130 U	130 U	400 U	400 U	10 U	5.0 U	5.0 U	10 U	20 U	5.0 U	2.0 U	1.0 U
Toluene	40,000	100,000	28	400 U	400 U	130 U	130 U	400 U	400 U	5.8 J	6	6.9	5.1 J	5.6 J	5.0 U	2.0 U	1.0 U
Xylenes, m,p-	5,000	100,000	50 U	800 U	800 U	250 U	250 U	800 U	800 U	20 U	10 U	10 U	20 U	40 U	10 U	4.0 U	2.0 U
Xylene, o-	5,000	100,000	25 U	400 U	400 U	130 U	130 U	400 U	400 U	10 U	5.0 U	5.0 U	10 U	20 U	5.0 U	2.0 U	1.0 U
Metals, Total (ug/L)																	
Chromium	300	3,000	**520**	40	160	**450**	**570**	250	180	**5100**	---	**330**	200	180	**8,300**	**1,600**	**1,500**
Hexavalent Chromium	300	3,000	**590**	24	5.0 U	5,000 U	**320**	160	190	50 U	---	5.0 U	5.0 U	5.0 U	250 U	500 U	1000 U
Iron	NL	NL	---	---	---	---	---	---	---	---	75000	---	46000	---	---	---	---
Metals, Dissolved (ug/L)								---									
Chromium	300	3,000	---	---	---	---	---	---	---	**4800**	---	---	---	---	---	---	---
Iron	NL	NL	---	---	---	---	---	---	---	---	85000	---	43000	---	---	---	---

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved

Table 4
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO June 2014)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BIW-24	BIW-24	BIW-24	BIW-31	BIW-31	BIW-31	BIW-31	BIW-31	BIW-31	BIW-31	BIW-31	BIW-31	BIW-31	BIW-31	BIW-31	BIW-32	BIW-32
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Dec-13	Apr-14	Jun-14	Dec-10	Feb-11	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Apr-13	Jun-13	Oct-13	Dec-13	Apr-14	Jun-14	Dec-10	Jan-11
Chlorinated Ethenes (ug/L)																				
Tetrachloroethene	30,000	100,000	3.7	6.1	100 U	190 J	52	100 U	6.0 J	100 U	55 J	10 U	10 U	10 U	10 U	27	400 U	400 U	100 U	10 U
Trichloroethene (TCE)	5,000	50,000	**5,300**	**11,000**	**6,700**	**330,000**	920	**36,000**	1,200	**110,000**	**130,000**	3.9 J	11	66	330	**25,000**	**36,000**	**28,000**	**92,000**	2,000
cis-1,2-Dichloroethene	50,000	100,000	470	1000	630	1700	10 U	72 J	20 U	1300	1100	10 U	10 U	10 U	10 U	210	420	400 U	28 J	10 U
trans-1,2-Dichloroethene	50,000	100,000	3.6	4.4	100 U	250 U	10 U	100 U	20 U	32 J	200 U	10 U	10 U	10 U	10 U	10 U	400 U	400 U	100 U	10 U
1,1-Dichloroethene	30,000	100,000	1.0 U	0.88 J	100 U	250 U	10 U*	100 U	20 U	100 U	200 U	10 U	10 U	10 U	10 U	10 U	400 U	400 U	100 U	10 U*
Vinyl chloride	50,000	100,000	140	220	150	120 U	50 U	50 U	10 U	50 U	100 U	5.0 U	10 U	10 U	10 U	10 U	400 U	400 U	50 U	50 U
Chlorinated Ethanes (ug/L)																				
Chloroethane	NL	NL	2.0 U	2.0 U	200 U	500 U	9.0 J	200 U	20 J	200 U	400 U	20 U	20 UJ	20 U	20 U	20 U	800 U	800 U	200 U	20 U
1,1,2,2-Tetrachloroethane	50,000	100,000	3	2	50 U	120 U	4,300	3,600	4,200	1,500	1,700	290	370	320	650	1,600	1,800	1,800	50 U	59
1,1,1-Trichloroethane	20,000	100,000	1.0 U	1.0 U	100 U	250 U	10 U	100 U	20 U	100 U	200 U	10 U	10 U	10 U	10 U	10 U	400 U	400 U	100 U	10 U
1,1,2-Trichloroethane	50,000	100,000	0.29 J	0.30 J	100 U	250 U	300	150	830	200	200	17	32	12	18	57	400 U	400 U	100 U	10 U
1,1-Dichloroethane	20,000	100,000	1.0 U	1.0 U	100 U	250 U	100 U	100 U	15 J	100 U	200 U	10 U	10 U	10 U	10 U	10 U	400 U	400 U	100 U	10 U
1,2-Dichloroethane	20,000	100,000	1.0 U	1.0 U	100 U	250 U	91	63 J	220	53 J	200 U	3.8 J	6.5 J	10 U	10 U	15	400 U	400 U	100 U	10 U
Other VOCs (ug/L)																				
2-Butanone	50,000	100,000	10 U	10 U	1,000 U	2,500 U	1,000 U *	1,000 U	200 U	1,000 U	2,000 U	100 U	100 U	100 U	100 U	100 U	4,000 U	4,000 U	1,000 U	1,000 U *
2-Chlorotoluene	NL	NL	1.0 U	1.0 U	100 U	250 U	100 U	100 U	20 U	100 U	200 U	10 U	10 U	10 U	10 U	10 U	400 U	400 U	100 U	100 U
4-Chlorotoluene	NL	NL	1.0 U	1.0 U	100 U	250 U	100 U	100 U	20 U	100 U	200 U	10 U	10 U	10 U	10 U	10 U	400 U	400 U	100 U	100 U
Acetone	50,000	100,000	50 U	50 U	5,000 U	12,000 UJ	5,000 U*	5,000 U	1,000 U	5,000 U	10,000 U	500 U	130 J	120 J	74 J	500 U	20,000 U	20,000 U	5,000 UJ	5,000 U*
Benzene	10,000	100,000	1.0 U	1.0 U	100 U	250 U	3.6 J	100 U	20 U	100 U	200 U	10 U	10 U	10 U	10 U	10 U	400 U	400 U	100 U	10 U
Bromodichloromethane	50,000	100,000	0.50 U	0.50 U	50 U	250 U	50 U	50 U	10 U	50 U	100 U	5.0 U	5.0 U	4.7 J	5.0 U	5.0 U	200 U	200 U	100 U	50 U
Butylbenzene	NL	NL	1.0 U	1.0 U	100 U	250 U	100 U	100 U	20 U	100 U	200 U	10 U	10 U	10 U	10 U	10 U	400 U	400 U	100 U	100 U
Carbon disulfide	NL	NL	2.8 J	3.2 J	82 J	2,500 U	76 J*	78 J	50 J	120 J	180 J	11 J	10 J	8.6 J	21 J	51 J	4,000 U	4,000 U	1,000 U	24 J*
Carbon tetrachloride	5,000	50,000	1.0 U	1.0 U	100 U	250 U*	100 U	100 U	20 U	100 U	200 U	10 U	10 U	10 U	10 U	10 U	400 U	400 U	100 U*	100 U
Chlorobenzene	1,000	10,000	1.0 U	1.0 U	100 U	250 U	10 U	100 U	20 U	100 U	200 U	10 U	10 U	10 U	10 U	10 U	400 U	400 U	100 U	10 U
Chloroform	20,000	100,000	0.70 J	0.83 J	100 U	250 U	2,500	1,200	4,500	1,300	1,300	230	390	480	550	500	370 J	650	100 U	24 J
Chloromethane	NL	NL	2.0 U	2.0 U	200 U	500 U	1,900	660	4,900	950	1,100	190	270	120	170	500	260 J	440 J	200 U	200 U
Ethylbenzene	5,000	100,000	1.0 U	1.0 U	100 U	250 U	10 U	100 U	20 U	100 U	200 U	10 U	10 U	10 U	10 U	10 U	400 U	400 U	100 U	10 U
Methylene chloride	50,000	100,000	1.0 U	1.0 U	170	500 U	4,800	1,800	8,900	2,000	2,100	320	530	250	340	810	610	960	200 U	30
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	1.0 U	1.0 U	100 U	250 U	10 U	100 U	20 U	100 U	200 U	10 U	10 U	10 U	10 U	10 U	400 U	400 U	100 U	10 U
Toluene	40,000	100,000	1.1	1.7	100 U	13000	10 U	23 J	20 U	2500	160 J	10 U	10 U	10 U	10 U	9.0 J	550	400 U	480	10 U
Xylenes, m,p-	5,000	100,000	2.0 U	0.95 J	200 U	500 U	20 U	200 U	40 U	200 U	400 U	20 U	20 U	20 U	20 U	20 U	800 U	800 U	200 U	20 U
Xylene, o-	5,000	100,000	1.0 U	1.0 U	100 U	250 U	10 U	100 U	20 U	100 U	200 U	10 U	10 U	10 U	10 U	10 U	400 U	400 U	100 U	10 U
Metals, Total (ug/L)																				
Chromium	300	3,000	58	21	42	---	---	**1100**	---	140 B	250	**410**	**410**	**490**	**500**	**360**	180	290	---	---
Hexavalent Chromium	300	3,000	5.0 U	5.0 U	5.0 U	---	---	2,500 U	---	250 U	250 U	5,000 U	250 U	250 U	250 U	250 U	130 U	500 U	---	---
Iron	NL	NL	---	---	---	---	---	1,500,000	1,200,000	---	290,000	---	---	---	---	---	---	---	---	---
Metals, Dissolved (ug/L)				---													---			
Chromium	300	3,000	---	---	---	---	---	**1200**	---	---	---	---	---	---	---	---	---	---	---	---
Iron	NL	NL	---	---	---	---	---	1,600,000	980,000	---	160,000	---	---	---	---	---	---	---	---	---

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range

10 - Indicates valu - Indicates value exceeds current GW-3 Standard

10 - Indicates valu - Indicates value exceeds current UCL

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved

Table 4
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO June 2014)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BIW-32	BIW-32	BIW-32	BIW-32	BIW-32	BIW-32	BIW-32	BIW-32	BIW-32	BIW-32	BIW-32	BIW-33	BIW-33	BIW-33	BIW-33	BIW-33	BIW-33
	GW-3 MCP	UCL GW MCP	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Apr-13	Jun-13	Oct-13	Dec-13	Apr-14	Jun-14	Dec-10	Jan-11	Aug-11	Jan-12	Feb-12	Mar-12
	(ug/L)	(ug/L)																	
Chlorinated Ethenes (ug/L)																			
Tetrachloroethene	30,000	100,000	200 U	2.0 U	20 U	10 U	20 U	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U
Trichloroethene (TCE)	5,000	50,000	**77,000**	610	4,700	4,000	**8,300**	640	30	44	29	320	120	**45,000**	33 J	**14,000**	390	**6,400**	**21,000**
cis-1,2-Dichloroethene	50,000	100,000	200 U	2.0 U	20 U	10 U	20 U	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	50 U	50 U	50 U	1.6 J	3.9 J	50 U
trans-1,2-Dichloroethene	50,000	100,000	200 U	2.0 U	20 U	10 U	20 U	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U
1,1-Dichloroethene	30,000	100,000	200 U	2.0 U	20 U	10 U	20 U	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U
Vinyl chloride	50,000	100,000	100 U	1.0 U	10 U	5.0 U	10 U	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	25 U	25 U	25 U	2.5 U	2.5 U	25 U
Chlorinated Ethanes (ug/L)																			
Chloroethane	NL	NL	400 U	4.0 U	40 U	20 U	40 U	20 UJ	4.0 U	8.0 U	8.0 U	8.0 U	8.0 U	100 U	9.7	100 U	12	4.1 J	100 U
1,1,2,2-Tetrachloroethane	50,000	100,000	50 U	2.2	10 U	2.3 J	26	5.5	4.5	17	12	2.0 U	16	25 U	43	13.J	36	51	42
1,1,1-Trichloroethane	20,000	100,000	200 U	2.0 U	20 U	10 U	20 U	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U
1,1,2-Trichloroethane	50,000	100,000	200 U	0.86 J	20 U	10 U	20 U	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	50 U	27	50 U	31	6	50 U
1,1-Dichloroethane	20,000	100,000	200 U	2.0 U	20 U	10 U	20 U	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	50 U	50 U	50 U	3.2 J	5.0 U	50 U
1,2-Dichloroethane	20,000	100,000	200 U	2.0 U	20 U	10 U	20 U	10 U	1.5 J	1.2 J	4.0 U	4.0 U	4.0 U	50 U	53	50 U	68	16	50 U
Other VOCs (ug/L)																			
2-Butanone	50,000	100,000	2,000 U	20 U	200 U	100 U	200 U	100 U	20 U	40 U	40 U	40 U	40 U	500 U	500 U	500 U	50 U	50 U	500 U
2-Chlorotoluene	NL	NL	200 U	2.0 U	20 U	10 U	20 U	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U
4-Chlorotoluene	NL	NL	200 U	2.0 U	20 U	10 U	20 U	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U
Acetone	50,000	100,000	10,000 U	100 U	1,000 U	500 U	1,000 U	37 J	100 U	54 J	200 U	200 U	35 J	2,500 UJ	1,600 J	2,500 U	110 J	250 U	2500 U
Benzene	10,000	100,000	200 U	2.0 U	20 U	10 U	20 U	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U
Bromodichloromethane	50,000	100,000	50 U	1.0 U	10 U	5.0 U	10 U	5.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	50 U	25 U	25 U	2.5 U	2.5 U	25 U
Butylbenzene	NL	NL	200 U	2.0 U	20 U	10 U	20 U	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U
Carbon disulfide	NL	NL	2,000 U*	0.99 J	200 U	6.4 J	52 J	11 J	1.5 J	2.4 J	11 J	2.9 J	3.6 J	500 U	500 U*	26 J	11 J	16 J	25 J
Carbon tetrachloride	5,000	50,000	200 U	2.0 U	20 U	10 U	20 U	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	50 U*	50 U	50 U	5.0 U	4.5 J	16 J
Chlorobenzene	1,000	10,000	200 U	2.0 U	20 U	10 U	20 U	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U
Chloroform	20,000	100,000	200 U	2.1	20 U	2.1 J	4.0 J	8.3 J	11	12	9.7	4.0 U	10	50 U	70	11 J	54	18	11 J
Chloromethane	NL	NL	400 U	94	6.8 J	75	53	130	130	170	86	8.1	80	100 U	1,300	290	2,800	760	430
Ethylbenzene	5,000	100,000	200 U	2.0 U	20 U	10 U	20 U	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U
Methylene chloride	50,000	100,000	400 U	30	40 U	30	52 U	55	60	50	30	4.0 U	28	100 U	880	100 U	1,400	320	170
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	200 U	2.0 U	20 U	10 U	20 U	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U
Toluene	40,000	100,000	960	1.8 J	10 J	8.6 J	99	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	50 U	50 U	18 J	5.0 U	3.4 J	50 U
Xylenes, m,p-	5,000	100,000	400 U	4.0 U	40 U	20 U	40 U	20 U	4.0 U	8.0 U	8.0 U	8.0 U	8.0 U	100 U	8.0 U	100 U	10 U	10 U	100 U
Xylene, o-	5,000	100,000	200 U	2.0 U	20 U	10 U	20 U	10 U	2.0 U	4.0 U	4.0 U	4.0 U	4.0 U	50 U	50 U	50 U	5.0 U	5.0 U	50 U
Metals, Total (ug/L)																			
Chromium	300	3,000	62	---	39 B	48	31	**540**	**520**	**490**	**450**	43	170	---	---	23	---	**340**	140
Hexavalent Chromium	300	3,000	79	---	5.0 U	5.0 U	13 U	250 U	1,300 U	5.0 U	130 U	52	500 U	---	---	25	---	250 U	130 U
Iron	NL	NL	---	95,000	---	42000	---	---	---	---	---	---	---	---	---	3,400 B	1,900,000	---	44,000
Metals, Dissolved (ug/L)												---							
Chromium	300	3,000	63	---	---	---	---	---	---	---	---	---	---	---	---	47	---	---	---
Iron	NL	NL	---	65,000	---	52000	---	---	---	---	---	---	---	---	---	3,100	1,800,000	---	53,000

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range

10 - Indicates valu - Indicates value exceeds current GW-3 Standard

10 - Indicates valu - Indicates value exceeds current UCL

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved

Table 4
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO June 2014)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BIW-33	BIW-33	BIW-33	BIW-33	BIW-33	BIW-33	BIW-33	BMW-5	BMW-5	BMW-5	BMW-5	BMW-5	BMW-5	BMW-5	BMW-5	BMW-5	BMW-5
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Aug-12	Apr-13	Jun-13	Oct-13	Dec-13	Apr-14	Jun-14	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Apr-13	Jun-13	Oct-13	Dec-13	Apr-14	Jun-14
Chlorinated Ethenes (ug/L)																				
Tetrachloroethene	30,000	100,000	10 U	1.0 U	1.0 U	1.0 U	1.1	100 U	100 U	28 J	37 J	50	32 J	29 J	80 U	67	400 U	400 U	80 U	200 U
Trichloroethene (TCE)	5,000	50,000	2,000	1.0 U	2	22	**6,400**	**5,400**	**9,800**	**25,000**	**26,000**	**28,000**	**25,000**	**15,000**	**5,800**	**23,000**	**17,000**	**20,000**	**16,000**	**14,000**
cis-1,2-Dichloroethene	50,000	100,000	2.9 J	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	2000	2200	1900	2000	1400	520	1500	1500	1900	1500	1,300
trans-1,2-Dichloroethene	50,000	100,000	10 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	100 U	20 J	15 J	22 J	80 U	25	400 U	400 U	80 U	200 U
1,1-Dichloroethene	30,000	100,000	10 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	100 U	15 J	15 J	50 U	80 U	13 J	400 U	400 U	80 U	200 U
Vinyl chloride	50,000	100,000	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	470	410	330	300	320	81	320	400 U	400 U	220	200 U
Chlorinated Ethanes (ug/L)																				
Chloroethane	NL	NL	20 U	2.0 U	2.0 U	2.0 U	2.0 U	200 U	200 U	200 U	200 U	100 U	100 U	100 U	160 U	40 U	800 U	800 U	160 U	400 U
1,1,2,2-Tetrachloroethane	50,000	100,000	62	8.8	2.8	9.5	14	50 U	50 U	50 U	50 U	25 U	25 U	25 U	40 U	10 U	200 U	200 U	40 U	100 U
1,1,1-Trichloroethane	20,000	100,000	10 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	100 U	50 U	50 U	50 U	80 U	20 U	400 U	400 U	80 U	200 U
1,1,2-Trichloroethane	50,000	100,000	10 U	1.0 U	1.0 U	0.40 J	0.29 J	100 U	100 U	100 U	100 U	50 U	50 U	50 U	80 U	20 U	400 U	400 U	80 U	200 U
1,1-Dichloroethane	20,000	100,000	10 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	100 U	50 U	50 U	50 U	80 U	20 U	400 U	400 U	80 U	200 U
1,2-Dichloroethane	20,000	100,000	2.3 J	0.91 J	1.0 U	0.85 J	0.55 J	100 U	100 U	100 U	100 U	50 U	50 U	50 U	80 U	20 U	400 U	400 U	80 U	200 U
Other VOCs (ug/L)																				
2-Butanone	50,000	100,000	100 U	10 U	10 U	10 U	2.0 J	1000 U	1,000 U	1,000 U	1,000 U	500 U	500 U	500 U	800 U	200 U	4,000 U	4,000 U	800 U	2,000 U
2-Chlorotoluene	NL	NL	10 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	100 U	50 U	50 U	50 U	80 U	20 U	400 U	400 U	80 U	200 U
4-Chlorotoluene	NL	NL	10 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	100 U	50 U	50 U	50 U	80 U	20 U	400 U	400 U	80 U	200 U
Acetone	50,000	100,000	500 U	50 U	14 J	40 J	50 U	5,000 U	5,000 U	5,000 U	5,000 U	2,500 U	2,500 U	2500 U	4000 UJ	1000 U	20,000 U	20,000 U	4,000 U	10,000 U
Benzene	10,000	100,000	10 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	100 U	50 U	50 U	50 U	80 U	20 U	400 U	400 U	80 U	200 U
Bromodichloromethane	50,000	100,000	5.0 U	0.5 U	0.5 U	0.50 U	0.50 U	50 U	50 U	50 U	50 U	25 U	25 U	25 U	40 U	10 U	200 U	200 U	40 U	100 U
Butylbenzene	NL	NL	10 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	100 U	50 U	50 U	50 U	80 U	20 U	400 U	400 U	80 U	200 U
Carbon disulfide	NL	NL	7.5 J	10 U	0.76 J	1.4 J	4.4 J	1,000 U	1,000 U	43 J*	47 J	36 J	17 J	30 J	36 J	59 J	4,000 U	4,000 U	800 U	2,000 U
Carbon tetrachloride	5,000	50,000	10 U	2.8	4.8	5.4	6.6	100 U	100 U	100 U	100 U	50 U	50 U	50 U	80 U	20 U	400 U	400 U	80 U	200 U
Chlorobenzene	1,000	10,000	10 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	100 U	50 U	50 U	50 U	80 U	20 U	400 U	400 U	80 U	200 U
Chloroform	20,000	100,000	7.4 J	5.3	2.5	6.3	5.1	100 U	100 U	100 U	100 U	50 U	50 U	50 U	80 U	20 U	400 U	400 U	80 U	200 U
Chloromethane	NL	NL	190	49	13	49	23	200 U	200 U	200 U	200 U	100 U	100 U	100 U	160 U	40 U	290 J	800 U	160 U	400 U
Ethylbenzene	5,000	100,000	10 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	100 U	50 U	50 U	50 U	80 U	20 U	400 U	400 U	80 U	200 U
Methylene chloride	50,000	100,000	65	24	6	23	12	100 U	88 J	200 U	200 U	100 U	100 U	120 U	80 U	13 J	400 U	400 U	80 U	160 J
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	10 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	100 U	50 U	50 U	50 U	80 U	20 U	400 U	400 U	80 U	200 U
Toluene	40,000	100,000	10 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	38 J	40 J	44 J	20 J	19 J	80 U	36	400 U	400 U	80 U	200 U
Xylenes, m,p-	5,000	100,000	20 U	2.0 U	2.0 U	2.0 U	2.0 U	200 U	200 U	200 U	200 U	30 J	100 U	100 U	160 U	57	800 U	800 U	160 U	400 U
Xylene, o-	5,000	100,000	10 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	100 U	50 U	50 U	50 U	80 U	18 J	400 U	400 U	80 U	200 U
Metals, Total (ug/L)																				
Chromium	300	3,000	**420**	140	280	160	22	61	16	95	---	**840**	15	120	36	98	36	16	15	4.3 J
Hexavalent Chromium	300	3,000	500 U	250 U	500 U	250 U	50 U	130 U	5.0 U	130	---	6.6	5.0 U	130	250 U	56	36	5.0 U	5.0 U	5.0 U
Iron	NL	NL	---	---	---	---	---	---	---	---	1,700	---	2,600	---	---	---	---	---	---	---
Metals, Dissolved (ug/L)								---											---	
Chromium	300	3,000	---	---	---	---	---	---	---	100	---	---	---		---	---	---	---	---	---
Iron	NL	NL	---	---	---	---	---	---	---	---	760	---	1,400		---	---	---	---	---	---

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved

Table 4
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO June 2014)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-1B	OSW-1B
	GW-3 MCP	UCL GW MCP	Dec-10	Feb-11	Mar-11	Aug-11	Jan-12	Feb-12	Mar-12	Aug-12	Mar-13	Jun-13	Sep-13	Dec-13	Apr-14	Jun-14
	(ug/L)	(ug/L)														
Chlorinated Ethenes (ug/L)																
Tetrachloroethene	30,000	100,000	10 U	4.0 U	7.7 J	50 U	100 U	50 U	25 U	20 U	1.4 J	1.7	100 U	100 U	100 U	100 U
Trichloroethene (TCE)	5,000	50,000	**5,100**	230	**34,000**	16,000 E	**20,000**	**18,000**	**24,000**	**7,400**	**6,300**	**7,600**	**6,300**	4,200	**5,300**	**6,900**
cis-1,2-Dichloroethene	50,000	100,000	690	5.8	480	320	390	350	410	230	160	230	210	160	240	280
trans-1,2-Dichloroethene	50,000	100,000	4.2 J	0.87 J	9.5 J	50 U	100 U	50 U	25 U	9.6 J	11 J	9.8	100 U	100 U	100 U	100 U
1,1-Dichloroethene	30,000	100,000	4.2 J	4.0 U*	25 U	50 U	100 U	50 U	25 U	20 U	1.0 UJ	0.73 J	100 U	100 U	100 U	100 U
Vinyl chloride	50,000	100,000	250	2.0 U	50	45	60	50	53	24	1.5 J	36	100 U	100 U	100 U	100 U
Chlorinated Ethanes (ug/L)													---	---		
Chloroethane	NL	NL	20 U	8.0 U	50 U	8.0 U	200 U	100 U	50 U	40 U	0.99 J	2.0 U	200 U	200 U	200 U	200 U
1,1,2,2-Tetrachloroethane	50,000	100,000	5.0 U	22	37	25 U	50 U	25 U	13 U	7.1 J	2.9 J	17	50 U	50 U	50 U	50 U
1,1,1-Trichloroethane	20,000	100,000	10 U	4.0 U	25 U	50 U	100 U	50 U	25 U	20 U	1.0 UJ	1.0 U	100 U	100 U	100 U	100 U
1,1,2-Trichloroethane	50,000	100,000	10 U	6.7	25 U	50 U	100 U	50 U	25 U	20 U	0.74 J	0.4 J	100 U	100 U	100 U	100 U
1,1-Dichloroethane	20,000	100,000	10 U	1.3 J	25 U	50 U	100 U	50 U	25 U	20 U	1.0 UJ	1.0 U	100 U	100 U	100 U	100 U
1,2-Dichloroethane	20,000	100,000	10 U	15	25 U	50 U	100 U	50 U	25 U	20 U	5.9 J	2.8	100 U	100 U	100 U	100 U
Other VOCs (ug/L)													---	---		
2-Butanone	50,000	100,000	100 U	40 U*	45 J	500 U	1000 U	500 U	250 U	200 U	10 UJ	10 U	1000 U	1000 U	1,000 U	1,000 U
2-Chlorotoluene	NL	NL	10 U	4.0 U	25 U	50 U	100 U	50 U	25 U	20 U	1.0 UJ	1.0 U	100 U	100 U	100 U	100 U
4-Chlorotoluene	NL	NL	10 U	4.0 U	25 U	50 U	100 U	50 U	25 U	20 U	1.0 UJ	1.0 U	100 U	100 U	100 U	100 U
Acetone	50,000	100,000	500 U	200 U*	1200 U	2,500 U	5,000 U	2,500 U	1,300 U	1000 U	50 U	50 U	5,000 U	5,000 U	5,000 U	5,000 U
Benzene	10,000	100,000	10 U	4.0 U	25 U	50 U	100 U	50 U	25 U	20 U	1.0 UJ	1.0 U	100 U	100 U	100 U	100 U
Bromodichloromethane	50,000	100,000	10 U	2.0 U	12 U	25 U	50 U	25 U	13 U	10 U	0.5 UJ	0.5 U	50 U	50 U	50 U	50 U
Butylbenzene	NL	NL	10 U	4.0 U	25 U	50 U	100 U	50 U	25 U	20 U	1.0 UJ	1.0 U	100 U	100 U	100 U	100 U
Carbon disulfide	NL	NL	100 U	35 J*	210 J	39 J*	51 J	24 J	72 J	18 J	37 J	35	1000 U	1000 U	1,000 U	1,000 U
Carbon tetrachloride	5,000	50,000	10 U	4.0 U	25 U	50 U	100 U	50 U	25 U	20 U	1.0 UJ	1.0 U	100 U	100 U	100 U	100 U
Chlorobenzene	1,000	10,000	10 U	4.0 U	25 U	50 U	100 U	50 U	25 U	20 U	1.0 UJ	1.0 U	100 U	100 U	100 U	100 U
Chloroform	20,000	100,000	10 U	45	10 J	50 U	100 U	50 U	10 J	20 U	3.5 J	1.6	100 U	100 U	100 U	100 U
Chloromethane	NL	NL	20 U	400	130	100 U	60 J	100	50 U	40 U	160	92	36 J	200 U	200 U	200 U
Ethylbenzene	5,000	100,000	10 U	4.0 U	25 U	50 U	100 U	50 U	25 U	20 U	1.0 UJ	1.0 U	100 U	100 U	100 U	100 U
Methylene chloride	50,000	100,000	20 U	260	40 J	100 U	200 U	100 U	29 J	42 U	70 J	34	100 U	100 U	100 U	67 J
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	10 U	4.0 U	25 U	50 U	100 U	50 U	25 U	20 U	1.0 UJ	1.0 U	100 U	100 U	100 U	100 U
Toluene	40,000	100,000	18	4.0 U	31	50 U	100 U	50 U	25 U	20 U	1.0 UJ	0.81 J	100 U	100 U	100 U	100 U
Xylenes, m,p-	5,000	100,000	20 U	8.0 U	50 U	100 U	200 U	100 U	50 U	40 U	2.0 UJ	2.0 U	200 U	200 U	200 U	200 U
Xylene, o-	5,000	100,000	10 U	4.0 U	25 U	50 U	100 U	50 U	25 U	20 U	1.0 UJ	1.0 U	100 U	100 U	100 U	100 U
Metals, Total (ug/L)													---	---		
Chromium	300	3,000	---	---	21 J	4.2 J	---	47	34	5.0 U	63	17	25	3.6 J	2.9 J	3.1 J
Hexavalent Chromium	300	3,000	---	---	50 R	5.0 U	---	250 U	5.0 U	5.0 U	500 U	5.0 U	50 U	5.0 U	5.0 UJ	50 U
Iron	NL	NL	---	---	---	---	430,000	---	94,000	---	---	---	---	---	---	---
Metals, Dissolved (ug/L)													---	---		
Chromium	300	3,000	---	---	---	25 U	---	---	---	---	17	---	8.4	---	---	---
Iron	NL	NL	---	---	---	---	370,000	---	99,000	---	---	---	---	---	---	---

Notes:

(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1

--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000

U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range

10 - Indicates value exceeds current GW-3 Standard

10 - Indicates value exceeds current UCL

Metals concentrations are reported as total except for hexavalent chromium, which is dissolved

Prepared by / Date: HTS 07/30/14
Checked by / Date: CTM 07/31/14

Table 5
Sediment Analytical Data - General Chemistry
Conductorlab
Groton, Massachusetts

			Location	CSD-1		CSD-3		CSD-3A		CSD-5	
			Sample Date	7/2/2018		7/2/2018		7/2/2018		7/2/2018	
			Media	SED		SED		SED		SED	
			Field Sample ID	C070218-CSD1		C070218-CSD3		C070218-CSD3A		C070218-CSD5	
			QC Code	REG		REG		REG		REG	
			Filtered Flag	NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q
Chromium III	SM3500Cr	16065-83-1	mg/kg	7.6		84		110		170	
Hexavalent Chromium	SW7196	18540-29-9	mg/kg	0.46	U	0.48	U	0.32	J	0.5	U
Percent Moisture At 105 Deg. C	E160.3	MOISTURE	%								
Solids	E160.3	SOLID	%								
Total Organic Carbon	LLOYD KAHN	TOC	mg/kg	7200		6700		3900		34000	

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram

Table 5
Sediment Analytical Data - General Chemistry
Conductorlab
Groton, Massachusetts

			Location	CSD-BKG001		CSW-1		CSW-12		CSW-12	
			Sample Date	7/2/2018		11/11/2005		11/11/2005		4/4/2007	
			Media	SED		SED		SED		SED	
			Field Sample ID	C070218-CSDBKG-001		C111105-CSW1-S1		C111105-CSW12-S1		C040407-CSW12	
			QC Code	REG		REG		REG		REG	
			Filtered Flag	NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q
Chromium III	SM3500Cr	16065-83-1	mg/kg	8.2							
Hexavalent Chromium	SW7196	18540-29-9	mg/kg	0.48	U	0.51	UJ	0.79	UJ	2.2	UJ
Percent Moisture At 105 Deg. C	E160.3	MOISTURE	%							24	
Solids	E160.3	SOLID	%			78.4		50.7		76	
Total Organic Carbon	LLOYD KAHN	TOC	mg/kg	8700							

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram

Table 5
Sediment Analytical Data - General Chemistry
Conductorlab
Groton, Massachusetts

			Location	CSW-2		CSW-2		CSW-3		CSW-4		CSW-4	
			Sample Date	11/11/2005		4/4/2007		11/11/2005		11/11/2005		4/4/2007	
			Media	SED		SED		SED		SED		SED	
			Field Sample ID	C111105-CSW2-S1		C040407-CSW2		C111105-CSW3-S1		C111105-CSW4-S1		C040407-CSW4	
			QC Code	REG		REG		REG		REG		REG	
			Filtered Flag	NA		NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium III	SM3500Cr	16065-83-1	mg/kg										
Hexavalent Chromium	SW7196	18540-29-9	mg/kg	0.45	UJ			8.4	J	1.2	J		
Percent Moisture At 105 Deg. C	E160.3	MOISTURE	%			21						28	
Solids	E160.3	SOLID	%	89		79		76		80.6		72	
Total Organic Carbon	LLOYD KAHN	TOC	mg/kg										

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram

Table 5
Sediment Analytical Data - General Chemistry
Conductorlab
Groton, Massachusetts

			Location	CSW-5		CSW-5		CSW-7		CSW-8	
			Sample Date	11/11/2005		4/4/2007		11/11/2005		4/4/2007	
			Media	SED		SED		SED		SED	
			Field Sample ID	C111105-CSW5-S1		C040407-CSW5		C111105-CSW7-S1		C040407-CSW8	
			QC Code	REG		REG		REG		REG	
			Filtered Flag	NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q
Chromium III	SM3500Cr	16065-83-1	mg/kg								
Hexavalent Chromium	SW7196	18540-29-9	mg/kg	0.55	UJ	1.9	UJ	0.64	UJ	4.3	UJ
Percent Moisture At 105 Deg. C	E160.3	MOISTURE	%			28				35	
Solids	E160.3	SOLID	%	73.1		72		63		65	
Total Organic Carbon	LLOYD KAHN	TOC	mg/kg								

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram

Prepared By: DP 9/2/2020
Checked By: CF 9/4/2020

Table 6
Summary of Compounds Detected in Surface Water (August 2006 - June 2008)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-1 Sep-06	CSW-1 Apr-07	CSW-1 Oct-07	CSW-1 Mar-08	CSW-2 Sep-06	CSW-2 Apr-07	CSW-2 Oct-07	CSW-2 Mar-08	CSW-3 Sep-06	CSW-3 Apr-07	CSW-3 Oct-07	CSW-3 Mar-08	CSW-3A Sep-06	CSW-3A DUP Sep-06	CSW-3A Dec-06	CSW-3A DUP Dec-06	CSW-3A Apr-07	CSW-3A Apr-07	CSW-3A Jul-07	CSW-3A DUP Jul-07	CSW-3A Oct-07	CSW-3A DUP Oct-07	CSW-3A Oct-07	CSW-3A DUP Oct-07	CSW-3A Dec-07	CSW-3A DUP Dec-07	CSW-3A Mar-08	CSW-3A DUP Mar-08	CSW-3A Jun-08	CSW-3A DUP Jun-08	CSW-4 Sep-06	CSW-4 Dec-06	CSW-4 Apr-07
Chlorinated Ethenes (ug/L)																																			
Tetrachloroethene			---	---	---	---	---	---	---	---	---	---	---	---	1 U	---	1 U	---	1 U	---	1 U	---	1 U	---	---	---	0.2 U	---	1 U	---	1 U	---	1 U	1 U	1 U
Trichloroethene (TCE)			---	---	---	---	---	---	---	---	---	---	---	---	1 U	---	1 U	---	1 U	---	0.32 J	---	1 U	---	---	---	0.2 U	---	1 U	---	0.69 J	---	1 U	1 U	1 U
cis-1,2-Dichloroethene			---	---	---	---	---	---	---	---	---	---	---	---	1 U	---	1 U	---	1 U	---	1 U	---	1 U	---	---	---	0.2 U	---	1 U	---	1 U	---	1 U	1 U	1 U
trans-1,2-Dichloroethene			---	---	---	---	---	---	---	---	---	---	---	---	1 U	---	1 U	---	1 U	---	1 U	---	1 U	---	---	---	0.2 U	---	1 U	---	1 U	---	1 U	1 U	1 U
1,1-Dichloroethene			---	---	---	---	---	---	---	---	---	---	---	---	1 U	---	1 U	---	1 U	---	1 U	---	1 U	---	---	---	0.2 U	---	1 U	---	1 U	---	1 U	1 U	1 U
Vinyl chloride			---	---	---	---	---	---	---	---	---	---	---	---	1 U	---	1 U	---	1 U	---	0.5 U	---	0.5 U	---	---	---	0.2 U	---	0.5 U	---	0.5 U	---	1 U	1 U	1 U
Chlorinated Ethanes (ug/L)																																			
Chloroethane			---	---	---	---	---	---	---	---	---	---	---	---	2 U	---	2 U	---	2 U	---	2 U	---	2 U	---	---	---	0.2 U	---	2 U	---	2 U	---	2 U	2 U	2 U
1,1,1-Trichloroethane			---	---	---	---	---	---	---	---	---	---	---	---	1 U	---	1 U	---	1 U	---	1 U	---	1 U	---	---	---	0.2 U	---	1 U	---	1 U	---	1 U	1 U	1 U
1,1,2-Trichloroethane			---	---	---	---	---	---	---	---	---	---	---	---	1 U	---	1 U	---	1 U	---	1 U	---	1 U	---	---	---	0.2 U	---	1 U	---	1 U	---	1 U	1 U	1 U
1,1-Dichloroethane			---	---	---	---	---	---	---	---	---	---	---	---	1 U	---	1 U	---	1 U	---	1 U	---	1 U	---	---	---	0.2 U	---	1 U	---	1 U	---	1 U	1 U	1 U
Other VOCs (ug/L)																																			
Methylene chloride			---	---	---	---	---	---	---	---	---	---	---	---	2 U	---	2 U	---	2 U	---	2 U	---	2 U	---	---	---	0.2 U	---	2 U	---	2 U	---	2 U	2 U	2 U
Toluene			---	---	---	---	---	---	---	---	---	---	---	---	1 U	---	1 U	---	1 U	---	1 U	---	1 U	---	---	---	0.2 U	---	1 U	---	1 U	---	1 U	1 U	1 U
Ethylbenzene			---	---	---	---	---	---	---	---	---	---	---	---	1 U	---	1 U	---	1 U	---	1 U	---	1 U	---	---	---	0.2 U	---	1 U	---	1 U	---	1 U	1 U	1 U
m&p-Xylenes			---	---	---	---	---	---	---	---	---	---	---	---	2 U	---	2 U	---	2 U	---	2 U	---	2 U	---	---	---	0.2 U	---	2 U	---	2 U	---	2 U	2 U	2 U
o-Xylene			---	---	---	---	---	---	---	---	---	---	---	---	1 U	---	1 U	---	1 U	---	1 U	---	1 U	---	---	---	0.2 U	---	1 U	---	1 U	---	1 U	1 U	1 U
Metals, Total (ug/L)																																			
Hexavalent Chromium	16	11	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.2	5 U	**23 J**	**19 J**	6.8	5.4	5 U	5 U	25 U	25 U	---	---	**17**	**17**	5 U	5 U	7.5	5 U	11	**13**	**22 J**	6.8	5 U
Metals, Dissolved (ug/L)																																			
Aluminum (Al)	750	87	---	---	---	---	---	---	---	---	---	---	---	---	100 U	100 U	100 U	100 U	100 U	100 U	13 J	14 J	8.7 J	8.0 J	---	---	9.9 J	8.9 J	7.3 J	7.4 J	5.7 J	7.1 J	100 U	100 U	100 U
Antimony (Sb)			---	---	---	---	---	---	---	---	---	---	---	---	2.2 J	3.2 J	10 U	10 U	2.8 J	3.5 J	10 U	10 U	6 U	6 U	---	---	4.5 U	4.5 U	4.5 U	4.5 U	2.3 U	2.3 U	2.6 J	10 U	10 U
Arsenic (As)	340	150	---	---	---	---	---	---	---	---	---	---	---	---	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	---	---	3.3 U	3.3 U	3.3 U	3.3 U	3.1 U	2.8 U	10 U	10 U	10 U
Barium (Ba)			---	---	---	---	---	---	---	---	---	---	---	---	24	24	19	19	19	18	18	18	21	21	---	---	21	20	21	20	24	24	25	19	18
Beryllium (Be)			---	---	---	---	---	---	---	---	---	---	---	---	1 U	1 U	0.13 J	0.16 J	1 U	1 U	1 U	1 U	1 U	1 U	---	---	0.11 U	0.11 U	0.11 U	0.11 U	0.029 U	0.029 U	1 U	0.1 J	1 U
Cadmium (Cd)	2	0.25	---	---	---	---	---	---	---	---	---	---	---	---	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	---	0.13 U	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	1 U	1 U	1 U
Calcium (Ca)			---	---	---	---	---	---	---	---	---	---	---	---	35,000	35,000	31,000	32,000	29,000	29,000	27,000	27,000	37,000	37,000	---	---	30,000	30,000	26,000	26,000	33,000	32,000	35,000	31,000	28,000
Chromium (Cr)	570	74	---	---	---	---	---	---	---	---	---	---	---	---	32	31	5.3	5.3	2.3 J	2.3 J	4.9 J	5.6	15	16	---	---	2.8 J	2.9 J	2.4 J	2.3 J	13	13	36	6.0	2.1 J
Cobalt (Co)			---	---	---	---	---	---	---	---	---	---	---	---	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	---	---	0.49 U	0.49 U	0.48 U	0.48 U	0.59 U	0.59 U	10 U	10 U	10 U
Copper (Cu)	13	9	---	---	---	---	---	---	---	---	---	---	---	---	3 U	3.4	1.8 J	3.3	2.8 J	3.0 J	2.3 J	2.6 J	2.4 J	2.7 J	---	---	2.0 J	1.8 J	1.2 J	1.3 J	3.7	3.6	3.3 U	2.2 J	3.0 J
Hexavalent Chromium	16	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)		1,000	---	---	---	---	---	---	---	---	---	---	---	---	24 J	27 J	22 J	25 J	51 J	26 J	36 J	36 J	29 J	32 J	---	---	19 J	18 J	18 J	19 J	26 J	20 J	19 J	23 J	18 J
Lead (Pb)	65	2.5	---	---	---	---	---	---	---	---	---	---	---	---	5 U	5 U	1.7 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	---	---	1.8 U	1.8 U	1.8 U	1.8 U	1.1 U	1.1 U	5 U	5 U	5 U
Magnesium (Mg)			---	---	---	---	---	---	---	---	---	---	---	---	2,800	2,800	2,600	2,600	2,500	2,500	2,100	2,100	2,900	2,900	---	---	2,800	2,800	2,400	2,400	2,500	2,500	2,700	2,600	2,500
Manganese (Mn)			---	---	---	---	---	---	---	---	---	---	---	---	7.2 J	8.5 J	22	22	59	59	28	35	190	180	---	---	35	35	34	34	24	24	2.2 J	10	42
Mercury (Hg)	1.4	0.77	---	---	---	---	---	---	---	---	---	---	---	---	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.081 J	0.2 U	0.2 U	0.2 U	0.2 U	---	---	0.11 U	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U	0.2 U	0.2 U	0.072 J
Nickel (Ni)	470	52	---	---	---	---	---	---	---	---	---	---	---	---	0.87 J	0.76 J	1.9 J	4.9 J	1.6 J	1.1 J	1.1 J	1.3 J	2.4 J	2.3 J	---	---	1 J	0.66 U	0.66 U	0.66 U	1.6 U	1.6 U	0.87 J	0.92 J	0.72 J
Potassium (K)			---	---	---	---	---	---	---	---	---	---	---	---	7,800	7,800	4,800	5,400	5,800	5,800	2,500 J	3,000 J	2,900 J	3,000 J	---	---	R	0.4 UJ	2,700 J	2,700 J	2800 J	2800 J	7,800	5,000	5,600
Selenium (Se)		5	---	---	---	---	---	---	---	---	---	---	---	---	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	---	---	7.3 U	7.3 U	7.3 U	7.3 U	2.2 U	2.2 U	10 U	10 U	10 U
Silver (Ag)	3.2		---	---	---	---	---	---	---	---	---	---	---	---	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	---	---	1.7 U	1.7 U	1.7 U	1.7 U	0.86 U	0.86 U	5 U	5 U	5 U
Sodium (Na)			---	---	---	---	---	---	---	---	---	---	---	---	44,000	44,000	27,000	27,000	39,000	40,000	27,000	27,000	42,000	42,000	---	---	75,000	74,000	34,000	34,000	36,000	36,000	43,000	27,000	40,000
Thallium (Tl)			---	---	---	---	---	---	---	---	---	---	---	---	10 U	10 U	1.9 J	2.4 J	10 U	10 U	10 U	10 U	10 U	10 U	---	---	1.6 U	1.8 J	1.6 U	1.6 U	1.9 U	1.9 U	10 U	2.1 J	10 U
Vanadium (V)			---	---	---	---	---	---	---	---	---	---	---	---	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1.3 J	1.4 J	---	---	0.43 J	0.43 U	0.79 U	0.92 U	0.92 J	0.95 J	10 U	10 U	10 U
Zinc (Zn)	120	120	---	---	---	---	---	---	---	---	---	---	---	---	50 U	50 U	50 U	6.1 J	50 U	50 U	50 U	50 U	50 U	4.6 J	---	---	3.9 U	3.9 U	3.9 U	3.9 U	2.9 U	2.9 U	50 U	50 U	50 U

AWQC - Ambient Water Quality Criteria
* Value for Trivalent Chromium used as a surrogate for Chromium
--- denotes not analyzed for; U = analyte was analyzed for but not detected above the indicated detection limit; J or B = value was estimated
Shaded and bolded values exceed AWQC values.

Table 6
Summary of Compounds Detected in Surface Water (August 2006 - June 2008)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-4 Jul-07	CSW-4 Oct-07	CSW-4 Oct-07	CSW-4 Dec-07	CSW-4 Mar-08	CSW-4 Jun-08	CSW-5 Sep-06	CSW-5 Dec-06	CSW-5 Apr-07	CSW-5 Jul-07	CSW-5 Oct-07	CSW-5 Oct-07	CSW-5 Dec-07	CSW-5 Mar-08	CSW-5 Jun-08	CSW-18 Sep-06	CSW-18 Apr-07	CSW-18 Oct-07	CSW-18 Mar-08	CSW-19 Sep-06	CSW-19 Apr-07	CSW-19 Oct-07	CSW-19 Mar-08
Chlorinated Ethenes (ug/L)																									
Tetrachloroethene			1 U	1 U	---	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	0.2 U	1 U	1 UJ	---	---	---	---	---	---	---	---
Trichloroethene (TCE)			1 U	1 U	---	0.2 U	1 U	1 U	1.6 U	1 U	1 U	0.51 J	1 U	---	0.2 U	1 U	0.63 J	---	---	---	---	---	---	---	---
cis-1,2-Dichloroethene			1 U	1 U	---	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	0.2 U	1 U	1 UJ	---	---	---	---	---	---	---	---
trans-1,2-Dichloroethene			1 U	1 U	---	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	0.2 U	1 U	1 UJ	---	---	---	---	---	---	---	---
1,1-Dichloroethene			1 U	1 U	---	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	0.2 U	1 U	1 UJ	---	---	---	---	---	---	---	---
Vinyl chloride			0.5 U	0.5 U	---	0.2 U	0.5 U	0.5 U	1 U	1 U	1 U	0.5 U	0.5 U	---	0.2 U	0.5 U	0.5 UJ	---	---	---	---	---	---	---	---
Chlorinated Ethanes (ug/L)																									
Chloroethane			2 U	2 U	---	0.2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	---	0.2 U	2 U	2 UJ	---	---	---	---	---	---	---	---
1,1,1-Trichloroethane			1 U	1 U	---	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	0.2 U	1 U	1 UJ	---	---	---	---	---	---	---	---
1,1,2-Trichloroethane			1 U	1 U	---	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	0.2 U	1 U	1 UJ	---	---	---	---	---	---	---	---
1,1-Dichloroethane			1 U	1 U	---	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	0.2 U	1 U	1 UJ	---	---	---	---	---	---	---	---
Other VOCs (ug/L)																									
Methylene chloride			2 U	2 U	---	0.2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	---	0.2 U	2 U	2 UJ	---	---	---	---	---	---	---	---
Toluene			1 U	1 U	---	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	0.2 U	1 U	1 UJ	---	---	---	---	---	---	---	---
Ethylbenzene			1 U	1 U	---	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	0.2 U	1 U	1 UJ	---	---	---	---	---	---	---	---
m&p-Xylenes			2 U	2 U	---	0.2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	---	0.2 U	2 U	2 UJ	---	---	---	---	---	---	---	---
o-Xylene			1 U	1 U	---	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	0.2 U	1 U	1 UJ	---	---	---	---	---	---	---	---
Metals, Total (ug/L)																									
Hexavalent Chromium	16	11	25 U	---	**15**	5 U	7.5	11	5.3 J	8.2	6.5	25 U	---	6.0	8.7	11	9	5 UJ	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Metals, Dissolved (ug/L)																									
Aluminum (Al)	750	87	16 J	7.1 J	---	9.5 J	6.2 J	6.3 J	100 U	100 U	100 U	14 J	11 J	---	8.0 J	7.5 J	11 J	---	---	---	---	---	---	---	---
Antimony (Sb)			10 U	6 U	---	4.5 U	4.5 U	2.3 U	2.6 J	10 U	2.1 J	10 U	6 U	---	4.5 U	4.5 U	2.3 U	---	---	---	---	---	---	---	---
Arsenic (As)	340	150	3.8 J	10 U	---	3.3 U	3.3 U	3.1 U	10 U	10 U	10 U	10 U	10 U	---	3.3 U	3.3 U	2 U	---	---	---	---	---	---	---	---
Barium (Ba)			17	23	---	20	21	23	21	18	18	19	16	---	21	19	22	---	---	---	---	---	---	---	---
Beryllium (Be)			1 U	1 U	---	0.11 U	0.11 U	0.029 U	1 U	0.084 J	1 U	1 U	1 U	---	0.11 U	0.11 U	0.029 U	---	---	---	---	---	---	---	---
Cadmium (Cd)	2	0.25	1 U	1 U	---	0.13 U	0.13 U	0.18 U	1 U	1 U	1 U	1 U	1 U	---	0.13 U	0.13 U	0.18 U	---	---	---	---	---	---	---	---
Calcium (Ca)			26,000	34,000	---	30,000	28,000	32,000	34,000	29,000	27,000	28,000	27,000	---	32,000	27,000	29,000	---	---	---	---	---	---	---	---
Chromium (Cr)	570	74	5.8	24	---	3.0 J	2.3 J	13	16 U	9.1	4.7 J	9.8	8.3	---	5.4	4.2 J	11	---	---	---	---	---	---	---	---
Cobalt (Co)			10 U	10 U	---	0.49 U	0.48 U	0.59 U	10 U	10 U	10 U	10 U	10 U	---	0.49 U	0.48 U	0.59 U	---	---	---	---	---	---	---	---
Copper (Cu)	13	9	3.4	8.7	---	1.9 J	1.5 J	3.4	3.9 U	6.2	4.8	**10**	3.6	---	6.7	3.3	**13**	---	---	---	---	---	---	---	---
Hexavalent Chromium	16	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)		1,000	35 J	100 U	---	15 J	14 U	16 U	12 J	11 J	100 U	17 J	27 J	---	14 U	14 U	21 J	---	---	---	---	---	---	---	---
Lead (Pb)	65	2.5	5 U	5 U	---	1.8 U	1.8 U	1.1 U	5 U	5 U	5 U	5 U	5 U	---	1.8 U	1.8 U	1.1 U	---	---	---	---	---	---	---	---
Magnesium (Mg)			2,000	2,800	---	2,800	2,500	2,500	2,500	2,400	2,400	2,200	2,100	---	2,900	2,400	2300	---	---	---	---	---	---	---	---
Manganese (Mn)			3.0 J	2.2J	---	55	34	1.5 J	42	15	15	29	60	---	33	16	78	---	---	---	---	---	---	---	---
Mercury (Hg)	1.4	0.77	0.2 U	0.2 U	---	0.11 U	0.13 U	0.13 U	0.2 U	0.094 J	0.16 J	0.2 U	0.15 J	---	0.11 U	0.13 U	0.13 U	---	---	---	---	---	---	---	---
Nickel (Ni)	470	52	1.3 J	5.6J	---	1.4 J	0.67 J	1.6 U	0.98 J	0.81 J	0.74 J	1.4 J	1.1 J	---	1.4 J	0.66 U	1.6 U	---	---	---	---	---	---	---	---
Potassium (K)			3,100 J	2400J	---	0.4 UJ	2,700 J	2600 J	6,600	4,800	5,500	3,200 J	2,000 J	---	3,200 J	2,500 J	2,700 J	---	---	---	---	---	---	---	---
Selenium (Se)		5	10 U	10 U	---	7.3 U	7.3 U	2.2 U	10 U	10 U	10 U	10 U	10 U	---	7.3 U	7.3 U	2.2 U	---	---	---	---	---	---	---	---
Silver (Ag)	3.2		5 U	5 U	---	1.7 U	1.7 U	0.86 U	5 U	5 U	5 U	5 U	5 U	---	1.7 U	1.7 U	0.86 U	---	---	---	---	---	---	---	---
Sodium (Na)			25,000	36,000	---	78,000	36,000	36,000	44,000	27,000	41,000	35,000	38,000	---	76,000	35,000	43,000	---	---	---	---	---	---	---	---
Thallium (Tl)			10 U	10 U	---	1.6 U	1.6 U	1.9 U	10 U	2.7 J	10 U	10 U	10 U	---	1.6 U	1.6 U	1.9 U	---	---	---	---	---	---	---	---
Vanadium (V)			10 U	0.89J	---	0.49 J	0.88 U	0.99 J	10 U	10 U	10 U	10 U	0.93 J	---	0.43 J	0.66 U	1 J	---	---	---	---	---	---	---	---
Zinc (Zn)	120	120	4.5 J	**290**	---	3.9 U	3.9 U	2.9 U	50 U	50 U	50 U	50 U	50 U	---	4.0 J	3.9 U	2.9 U	---	---	---	---	---	---	---	---

AWQC - Ambient Water Quality Criteria
* Value for Trivalent Chromium used as a surrogate for Chromium
--- denotes not analyzed for; U = analyte was analyzed for but not detected above the indicated detection limit; J or B = value was estimated
Shaded and bolded values exceed AWQC values.

Prepared by/Date: KJC 09/05/08
Checked by/Date: CTM 09/17/08

Table 6
Summary of Compounds Detected in Surface Water (March 2008 - December 2009)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-1 Mar-08	CSW-1 Sep-08	CSW-1 Mar-09	CSW-1 Sep-09	CSW-2 Mar-08	CSW-2 Sep-08	CSW-2 Mar-09	CSW-2 Sep-09	CSW-3 Mar-08	CSW-3 Sep-08	CSW-3 Mar-09	CSW-3 Sep-09	CSW-3A Mar-08	CSW-3A DUP Mar-08	CSW-3A Jun-08	CSW-3A DUP Jun-08	CSW-3A Sep-08	CSW-3A Dec-08	CSW-3A Mar-09	CSW-3A DUP Mar-09	CSW-3A Jun-09	CSW-3A Sep-09	CSW-3A DUP Sep-09	CSW-3A Dec-09	CSW-4 Mar-08
Chlorinated Ethenes (ug/L)																											
Tetrachloroethene			---	---	---	---	---	---	---	---	---	---	1 U	1 U	1 U	---	1 U	---	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE)			---	---	---	---	---	---	---	---	---	---	1 U	1.1	1 U	---	0.69 J	---	1 U	1 U	1 U	1 U	1 U	1.8	1.9	1 U	1 U
cis-1,2-Dichloroethene			---	---	---	---	---	---	---	---	---	---	1 U	1 U	1 U	---	1 U	---	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene			---	---	---	---	---	---	---	---	---	---	1 U	1 U	1 U	---	1 U	---	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene			---	---	---	---	---	---	---	---	---	---	1 U	1 U	1 U	---	1 U	---	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride			---	---	---	---	---	---	---	---	---	---	0.5 U	0.5 U	0.5 U	---	0.5 U	---	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorinated Ethanes (ug/L)																											
Chloroethane			---	---	---	---	---	---	---	---	---	---	2 U	2 U	2 U	---	2 U	---	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1,1-Trichloroethane			---	---	---	---	---	---	---	---	---	---	1 U	1 U	1 U	---	1 U	---	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane			---	---	---	---	---	---	---	---	---	---	1 U	1 U	1 U	---	1 U	---	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane			---	---	---	---	---	---	---	---	---	---	1 U	1 U	1 U	---	1 U	---	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Other VOCs (ug/L)																											
Methylene chloride			---	---	---	---	---	---	---	---	---	---	2 U	2 U	2 U	---	2 U	---	2 UJ	2 U	2 U	2 U	1 U	2 U	2 U	2 U	2 U
Toluene			---	---	---	---	---	---	---	---	---	---	1 U	1 U	1 U	---	1 U	---	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
Ethylbenzene			---	---	---	---	---	---	---	---	---	---	1 U	1 U	1 U	---	1 U	---	1 U	1 U	1 U	1 U	1 U	0.72 J	1 U	1 U	1 U
m&p-Xylenes			---	---	---	---	---	---	---	---	---	---	2 U	2 U	2 U	---	2 U	---	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
o-Xylene			---	---	---	---	---	---	---	---	---	---	1 U	1 U	1 U	---	1 U	---	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Metals, Total (ug/L)																											
Hexavalent Chromium	16	11	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**71**	7.5	5 U	11	**13**	5 U	5.1	5 U	5 U	**15**	**48**	**48**	**25**	7.5
Metals, Dissolved (ug/L)																											
Aluminum (Al)	750	87	---	---	---	---	---	---	---	---	---	---	---	---	7.3 J	7.4 J	5.7 J	7.1 J	7.8 J	6.9 J	8.4 J	8.1 J	6.1 J	39 U	39 U	100 U	6.2 J
Antimony (Sb)			---	---	---	---	---	---	---	---	---	---	---	---	4.5 U	4.5 U	2.3 U	2.3 U	2.3 U	2.3 U	6 U	6 U	2.3 U	2.9 U	2.9 U	6 U	4.5 U
Arsenic (As)	340	150	---	---	---	---	---	---	---	---	---	---	---	---	3.3 U	3.3 U	3.1 U	2.8 U	3.2 J	2.2 J	10 U	10 U	1.4 U	2.3 U	3.1 J	10 U	3.3 U
Barium (Ba)			---	---	---	---	---	---	---	---	---	---	---	---	21	20	24	24	22	20	20	20	22	26	26	20 J	21
Beryllium (Be)			---	---	---	---	---	---	---	---	---	---	---	---	0.11 U	0.11 U	0.029 U	0.029 U	0.029 U	0.032 U	0.029 J	1 U	0.029 U	0.2 U	0.2 U	1 U	0.11 U
Cadmium (Cd)	2	0.25	---	---	---	---	---	---	---	---	---	---	---	---	0.13 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	1 U	1 U	0.18 U	0.23 J	0.38 J	1 U	0.13 U
Calcium (Ca)			---	---	---	---	---	---	---	---	---	---	---	---	26,000	26,000	33,000	32,000	29,000	32,000	29,000	29,000	36,000	34,000	35,000	31,000	28,000
Chromium (Cr)	570	74	---	---	---	---	---	---	---	---	---	---	---	---	2.4 J	2.3 J	13	13	3.8 J	5.5	7.1	7.6	19	52	52	25.2	2.3 J
Cobalt (Co)			---	---	---	---	---	---	---	---	---	---	---	---	0.48 U	0.48 U	0.59 U	0.59 U	0.59 U	0.59 U	10 U	10 U	0.59 U	2 U	2 U	10 U	0.48 U
Copper (Cu)	13	9	---	---	---	---	---	---	---	---	---	---	---	---	1.2 J	1.3 J	3.7	3.6	1.6 U	1.6 U	3 U	3 U	3.6	7.5	7.4	**11**	1.5 J
Hexavalent Chromium	16	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)		1,000	---	---	---	---	---	---	---	---	---	---	---	---	18 J	19 J	26 J	20 J	33 J	26 J	19 J	19 J	16 U	34 U	34 U	100 U	14 U
Lead (Pb)	65	2.5	---	---	---	---	---	---	---	---	---	---	---	---	1.8 U	1.8 U	1.1 U	1.1 U	1.1 U	1.1 U	5 U	5 U	1.1 U	1.3 U	1.3 U	5 U	1.8 U
Magnesium (Mg)			---	---	---	---	---	---	---	---	---	---	---	---	2,400	2,400	2,500	2,500	2,400	2,700	2,400	2,400	2,900	2,700	2,700	2,600	2,500
Manganese (Mn)			---	---	---	---	---	---	---	---	---	---	---	---	34	34	24	24	12	78	35	34	17	18	18	44	34
Mercury (Hg)	1.4	0.77	---	---	---	---	---	---	---	---	---	---	---	---	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.2 U	0.2 U	0.13 U	0.065 U	0.065 U	0.2 U	0.13 U
Nickel (Ni)	470	52	---	---	---	---	---	---	---	---	---	---	---	---	0.66 U	0.66 U	1.6 U	1.6 U	1.6 U	1.6 U	10 U	10 U	1.6 U	1.5 U	1.8 J	10 U	0.67 J
Potassium (K)			---	---	---	---	---	---	---	---	---	---	---	---	2,700 J	2,700 J	2,800 J	2,800 J	4,100 J	3,400 J	2,400 J	2,100 J	3,600 J	4,300	4,500	2,200 J	2,700 J
Selenium (Se)		5	---	---	---	---	---	---	---	---	---	---	---	---	7.3 U	7.3 U	2.2 U	2.2 U	2.2 U	2.2 U	10 U	10 U	2.2 U	2.7 U	2.7 U	10 U	7.3 U
Silver (Ag)	3.2		---	---	---	---	---	---	---	---	---	---	---	---	1.7 U	1.7 U	0.86 U	0.86 U	0.86 U	0.86 U	5 U	5 U	0.86 U	1.8 U	1.8 U	5 U	1.7 U
Sodium (Na)			---	---	---	---	---	---	---	---	---	---	---	---	34,000	34,000	36,000	36,000	40,000	34,000	40,000	40,000	40,000	43,000	43,000	36,000	36,000
Thallium (Tl)			---	---	---	---	---	---	---	---	---	---	---	---	1.6 U	1.6 U	1.9 U	1.9 U	1.9 U	1.9 U	10 U	10 U	1.9 U	1.4 U	1.4 U	10 UJ	1.6 U
Vanadium (V)			---	---	---	---	---	---	---	---	---	---	---	---	0.79 U	0.92 U	0.92 J	0.95 J	0.54 J	0.6 J	0.79 J	0.71 J	0.98 J	1.5 U	1.5 U	10 U	0.88 U
Zinc (Zn)	120	120	---	---	---	---	---	---	---	---	---	---	---	---	3.9 U	3.9 U	2.9 U	2.9 U	2.9 U	2.9 U	5.3 J	3.6 J	3.5 J	10 U	10 U	50 U	3.9 U

AWQC - Ambient Water Quality Criteria
* Value for Trivalent Chromium used as a surrogate for Chromium
--- denotes not analyzed for; U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated
Shaded and bolded values exceed AWQC values.

Table 6
Summary of Compounds Detected in Surface Water (March 2008 - December 2009)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-4 Jun-08	CSW-4 Sep-08	CSW-4 Dec-08	CSW-4 Mar-09	CSW-4 Jun-09	CSW-4 Sep-09	CSW-4 Dec-09	CSW-5 Mar-08	CSW-5 Jun-08	CSW-5 Sep-08	CSW-5 Dec-08	CSW-5 Mar-09	CSW-5 Jun-09	CSW-5 Sep-09	CSW-5 Dec-09	CSW-18 Mar-08	CSW-18 Sep-08	CSW-18 Mar-09	CSW-18 Sep-09	CSW-19 Mar-08	CSW-19 Sep-08	CSW-19 Mar-09	CSW-19 Sep-09
Chlorinated Ethenes (ug/L)																									
Tetrachloroethene			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	---	---	---	---	---	---	---	---
Trichloroethene (TCE)			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.63 J	1 U	1 U	1 U	0.9 J	1	1 U	---	---	---	---	---	---	---	---
cis-1,2-Dichloroethene			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	---	---	---	---	---	---	---	---
trans-1,2-Dichloroethene			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	---	---	---	---	---	---	---	---
1,1-Dichloroethene			1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	---	---	---	---	---	---	---	---
Vinyl chloride			0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	---	---	---	---	---	---	---	---
Chlorinated Ethanes (ug/L)																									
Chloroethane			2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 UJ	2 U	2 U	2 U	2 U	2 U	2 U	---	---	---	---	---	---	---	---
1,1,1-Trichloroethane			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	---	---	---	---	---	---	---	---
1,1,2-Trichloroethane			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	---	---	---	---	---	---	---	---
1,1-Dichloroethane			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	---	---	---	---	---	---	---	---
Other VOCs (ug/L)																									
Methylene chloride			2 U	2 UJ	2 U	2 U	1 U	2 U	2 U	2 U	2 UJ	2 UJ	2 U	2 U	1 U	2 U	2 U	---	---	---	---	---	---	---	---
Toluene			1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	2 U	1 U	1 U	---	---	---	---	---	---	---	---
Ethylbenzene			1 U	1 U	1 U	1 U	1 U	1.4	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	---	---	---	---	---	---	---	---
m&p-Xylenes			2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 UJ	2 U	2 U	2 U	2 U	2 U	2 U	---	---	---	---	---	---	---	---
o-Xylene			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	---	---	---	---	---	---	---	---
Metals, Total (ug/L)																									
Hexavalent Chromium	16	11	11	5 U	5.1	5 U	**27**	**29**	**26**	11	9	5 U	6.3	5 U	8.6	9.5	**23**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Metals, Dissolved (ug/L)																									
Aluminum (Al)	750	87	6.3 J	8.3 J	7.1 J	7.4 J	7.7 J	39 U	100 U	7.5 J	11 J	9 J	8.5 J	10 J	11 J	39 U	100 U	---	---	---	---	---	---	---	---
Antimony (Sb)			2.3 U	2.3 U	2.3 U	6 U	2.3 U	2.9 U	6 U	4.5 U	2.3 U	2.3 U	2.3 U	6 U	2.3 U	2.9 U	6 U	---	---	---	---	---	---	---	---
Arsenic (As)	340	150	3.1 U	3.3 J	1.6 J	10 U	2.8 J	2.3 U	10 U	3.3 U	2 U	2.5 J	1.4 U	10 U	1.5 J	2.3 U	10 U	---	---	---	---	---	---	---	---
Barium (Ba)			23	21	19	19	22	24	19 J	19	22	22	17	19	22	19	18 J	---	---	---	---	---	---	---	---
Beryllium (Be)			0.029 U	0.029 U	0.033 U	0.037 J	0.029 U	0.2 U	1 U	0.11 U	0.029 U	0.029 U	0.032 U	1 U	0.029 U	0.2 U	1 U	---	---	---	---	---	---	---	---
Cadmium (Cd)	2	0.25	0.18 U	0.18 U	0.18 U	1 U	0.18 U	0.2 U	1 U	0.13 U	0.18 U	0.18 U	0.18 U	1 U	0.18 U	0.2 U	1 U	---	---	---	---	---	---	---	---
Calcium (Ca)			32,000	29,000	32,000	29,000	35,000	35,000	31,000	27,000	29,000	29,000	30,000	28,000	33,000	33,000	30,000	---	---	---	---	---	---	---	---
Chromium (Cr)	570	74	13	3.4 J	5.3	9.2	33	30	26.3	4.2 J	11	4 J	5.8	19	13	11	22.7	---	---	---	---	---	---	---	---
Cobalt (Co)			0.59 U	0.59 U	0.59 U	10 U	0.59 U	2 U	10 U	0.48 U	0.59 U	0.59 U	0.59 U	10 U	0.59 U	2 U	10 U	---	---	---	---	---	---	---	---
Copper (Cu)	13	9	3.4	1.8 J	1.6 U	3 U	3.2	3.6	**9.3**	3.3	**13**	5.5	3.2	4 U	7.1	3.3	8.5	---	---	---	---	---	---	---	---
Hexavalent Chromium	16	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)		1,000	16 U	24 J	18 J	100 U	16 U	34 U	100 U	14 U	21 J	31 J	21 J	100 U	24 J	34 U	100 U	---	---	---	---	---	---	---	---
Lead (Pb)	65	2.5	1.1 U	1.1 U	1.1 U	5 U	1.1 U	1.3 U	5 U	1.8 U	1.1 U	1.1 U	1.1 U	5 U	1.1 U	1.3 U	1.4 J	---	---	---	---	---	---	---	---
Magnesium (Mg)			2,500	2,400	2,700	2,400	2,800	2,800	2,600	2,400	2300	2,400	2,600	2,400	2,600	2,400	2,600	---	---	---	---	---	---	---	---
Manganese (Mn)			1.5 J	6 J	34	27	1.4 J	2.4 J	30	16	78	93	42	24	170	62	24	---	---	---	---	---	---	---	---
Mercury (Hg)	1.4	0.77	0.13 U	0.27	0.13 U	0.2 U	0.13 U	0.065 U	0.2 U	0.13 U	0.13 U	0.13 U	0.13 U	0.2 U	0.13 U	0.098 J	0.2 U	---	---	---	---	---	---	---	---
Nickel (Ni)	470	52	1.6 U	1.6 U	1.6 U	10 U	1.6 U	1.5 U	10 U	0.66 U	1.6 U	1.6 U	1.6 U	10 U	1.7 J	1.5 U	10 U	---	---	---	---	---	---	---	---
Potassium (K)			2,600 J	3,700 J	3,800 J	2,000 J	2,600 J	4,300	2,300 J	2,500 J	2,700 J	3,200 J	3,700 J	2,200 J	2,500 J	3,200 J	2,200 J	---	---	---	---	---	---	---	---
Selenium (Se)		5	2.2 U	2.2 U	2.2 U	10 U	2.2 U	2.7 U	10 U	7.3 U	2.2 U	2.2 U	2.2 U	10 U	2.2 U	2.7 U	10 U	---	---	---	---	---	---	---	---
Silver (Ag)	3.2		0.86 U	0.86 U	0.86 U	0.95 J	0.86 U	1.8 U	5 U	1.7 U	0.86 U	0.86 U	0.86 U	5 U	0.86 U	1.8 U	5 U	---	---	---	---	---	---	---	---
Sodium (Na)			36,000	40,000	35,000	39,000	39,000	41,000	36,000	35,000	43,000	39,000	34,000	40,000	49,000	48,000	35,000	---	---	---	---	---	---	---	---
Thallium (Tl)			1.9 U	1.9 U	1.9 U	10 U	1.9 U	1.4 U	10 UJ	1.6 U	1.9 U	1.9 U	1.9 U	10 U	1.9 U	1.4 U	10 UJ	---	---	---	---	---	---	---	---
Vanadium (V)			0.99 J	0.58 J	0.79 J	0.73 J	1.1 J	1.5 U	10 U	0.66 U	1 J	0.66 J	0.77 J	0.71 J	1.1 J	1.5 U	10 U	---	---	---	---	---	---	---	---
Zinc (Zn)	120	120	2.9 U	2.9 U	2.9 U	50 U	2.9 U	10 U	50 U	3.9 U	2.9 U	2.9 U	2.9 U	6.2 J	4.3 J	10 U	50 U	---	---	---	---	---	---	---	---

AWQC - Ambient Water Quality Criteria
* Value for Trivalent Chromium used as a surrogate for Chromium
--- denotes not analyzed for; U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated
Shaded and bolded values exceed AWQC values.

Prepared by / Date: KJC 03/04/10
Checked by / Date: DLC 03/05/10

Table 6
Summary of Compounds Detected in Surface Water (July 2009 - June 2011)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-1 Sep-09	CSW-1 Apr-10	CSW-1 Mar-11	CSW-2 Sep-09	CSW-2 Apr-10	CSW-2 Mar-11	CSW-3 Sep-09	CSW-3 Apr-10	CSW-3 Mar-11	CSW-3A Sep-09	CSW-3A DUP Sep-09	CSW-3A Dec-09	CSW-3A Apr-10	CSW-3A DUP Apr-10	CSW-3A Jun-10	CSW-3A Dec-10	CSW-3A Mar-11	CSW-3A DUP Mar-11	CSW-4 Sep-09	CSW-4 Dec-09
Chlorinated Ethenes (ug/L)																						
Tetrachloroethene			---	---	---	---	---	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)			---	---	---	---	---	---	1.1	1.0 U	0.44 J	1.8	1.9	1.0 U	1.0 U	1.0 U	5.9	0.71 J	0.82 J	0.73 J	1.0 U	1.0 U
cis-1,2-Dichloroethene			---	---	---	---	---	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene			---	---	---	---	---	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene			---	---	---	---	---	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride			---	---	---	---	---	---	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chlorinated Ethanes (ug/L)																						
Chloroethane			---	---	---	---	---	---	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,1-Trichloroethane			---	---	---	---	---	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane			---	---	---	---	---	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane			---	---	---	---	---	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Other VOCs (ug/L)																						
Methylene chloride			---	---	---	---	---	---	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Toluene			---	---	---	---	---	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene			---	---	---	---	---	---	1.0 U	1.0 U	1.0 U	0.72 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4	1.0 U
m&p-Xylenes			---	---	---	---	---	---	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
o-Xylene			---	---	---	---	---	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Metals, Total (ug/L)																						
Hexavalent Chromium	16	11	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**71**	6.8	5.0 U	**48**	**48**	**25**	**20**	**19**	**120**	**15**	**19**	**20**	**29**	**26**
Metals, Dissolved (ug/L)																						
Aluminum (Al)	750	87	---	---	---	---	---	---	---	---	---	39 U	39 U	100 U	100 U	100 U	100 U	14 J	13 J	13 J	39 U	100 U
Antimony (Sb)			---	---	---	---	---	---	---	---	---	2.9 U	2.9 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	2.9 U	6.0 U
Arsenic (As)	340	150	---	---	---	---	---	---	---	---	---	2.3 U	3.1 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	2.3 U	10 U
Barium (Ba)			---	---	---	---	---	---	---	---	---	26	26	20 J	20	20	26	24	23	23	24	19 J
Beryllium (Be)			---	---	---	---	---	---	---	---	---	0.20 U	0.20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.20 U	1.0 U
Cadmium (Cd)	2	0.25	---	---	---	---	---	---	---	---	---	0.23 J	0.38 J	1.0 U	1.0 U	1.0 U	1.0 U ^	1.0 U	1.0 U	1.0 U	0.20 U	1.0 U
Calcium (Ca)			---	---	---	---	---	---	---	---	---	34,000	35,000	31,000	26,000	26,000	32,000	33,000	30,000	29,000	35,000	31,000
Chromium (Cr)	570	74	---	---	---	---	---	---	---	---	---	52	52	25.2	18	18	**120**	15.0	18	17	30	26.3
Cobalt (Co)			---	---	---	---	---	---	---	---	---	2.0 U	2.0 U	10 U	10 U	10 U	4.7 J	10 U	10 U	10 U	2.0 U	10 U
Copper (Cu)	13	9	---	---	---	---	---	---	---	---	---	7.5	7.4	**11**	7.7	7.9	**26**	6.4	4.3	5.2	3.6	**9.3**
Hexavalent Chromium	16	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)		1,000	---	---	---	---	---	---	---	---	---	34 U	34 U	100 U	46 J	47 J	100 U	15 J	16 J	19 J	34 U	100 U
Lead (Pb)	65	2.5	---	---	---	---	---	---	---	---	---	1.3 U	1.3 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.3 U	5.0 U
Magnesium (Mg)			---	---	---	---	---	---	---	---	---	2,700	2,700	2,600	2,200	2,200	2,400	2,700	2,500	2,500	2,800	2,600
Manganese (Mn)			---	---	---	---	---	---	---	---	---	18	18	44	180	180	540	70	59	59	2.4 J	30
Mercury (Hg)	1.4	0.77	---	---	---	---	---	---	---	---	---	0.065 U	0.065 U	0.20 U	0.20 U	0.20 U	0.20 U	0.073 J	0.20 U	0.20 U	0.065 U	0.20 U
Nickel (Ni)	470	52	---	---	---	---	---	---	---	---	---	1.5 U	1.8 J	10 U	2.1 J	1.9 J	9.1 J ^	2.7 J	1.6 J	1.4 J	1.5 U	10 U
Potassium (K)			---	---	---	---	---	---	---	---	---	4,300	4,500	2,200 J	2,400 J	2,300 J	2,000 J	3,500 J	2700 J	2600 J	4,300	2,300 J
Selenium (Se)		5	---	---	---	---	---	---	---	---	---	2.7 U	2.7 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	2.7 U	10 U
Silver (Ag)	3.2		---	---	---	---	---	---	---	---	---	1.8 U	1.8 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.8 U	5.0 U
Sodium (Na)			---	---	---	---	---	---	---	---	---	43,000	43,000	36,000	41,000	41,000	54,000	33,000	42,000	41,000	41,000	36,000
Thallium (Tl)			---	---	---	---	---	---	---	---	---	1.4 U	1.4 U	10 UJ	10 U	10 U	10 U	2.5 U	10 U	10 U	1.4 U	10 UJ
Vanadium (V)			---	---	---	---	---	---	---	---	---	1.5 U	1.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1.5 U	10 U
Zinc (Zn)	120	120	---	---	---	---	---	---	---	---	---	10 U	10 U	50 U	50 U	50 U	50 U	50 U	7.8 J	8.5 J	10 U	50 U

AWQC - Ambient Water Quality Criteria
* Value for Trivalent Chromium used as a surrogate for Chromium
--- denotes not analyzed for; U = analyte was analyzed for but not detected above the indicated detection limit;
J = value was estimated; ^ = Instrument related QC exceeds the control limits.
Shaded and bolded values exceed AWQC values.

Table 6
Summary of Compounds Detected in Surface Water (July 2009 - June 2011)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-4 Apr-10	CSW-4 Dec-10	CSW-4 Mar-11	CSW-5 Sep-09	CSW-5 Dec-09	CSW-5 Apr-10	CSW-5 Jun-10	CSW-5 Dec-10	CSW-5 Mar-11	CSW-18 Sep-09	CSW-18 Apr-10	CSW-18 Mar-11	CSW-19 Sep-09	CSW-19 Apr-10	CSW-19 Mar-11
Chlorinated Ethenes (ug/L)																	
Tetrachloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---
Trichloroethene (TCE)			1.0 U	0.47 J	0.49 J	1.0	1.0 U	1.0 U	0.80 J	1.0 U	0.36 J	---	---	---	---	---	---
cis-1,2-Dichloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---
trans-1,2-Dichloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---
1,1-Dichloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---
Vinyl chloride			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	---	---	---	---	---	---
Chlorinated Ethanes (ug/L)																	
Chloroethane			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	---	---	---	---	---	---
1,1,1-Trichloroethane			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---
1,1,2-Trichloroethane			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---
1,1-Dichloroethane			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---
Other VOCs (ug/L)																	
Methylene chloride			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	---	---	---	---	---	---
Toluene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---
Ethylbenzene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---
m&p-Xylenes			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	---	---	---	---	---	---
o-Xylene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---
Metals, Total (ug/L)																	
Hexavalent Chromium	16	11	**20**	**18**	**19**	9.5	**23**	**19**	**13**	**12**	**18**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Metals, Dissolved (ug/L)																	
Aluminum (Al)	750	87	100 U	13 J	12 J	39 U	100 U	100 U	100 U	12 J	100 U	---	---	---	---	---	---
Antimony (Sb)			6.0 U	5.0 U	6.0 U	2.9 U	6.0 U	6.0 U	6.0 U	3.0 U	1.6 J	---	---	---	---	---	---
Arsenic (As)	340	150	10 U	10 U	10 U	2.3 U	10 U	10 U	2.9 J	10 U	10 U	---	---	---	---	---	---
Barium (Ba)			20	23	23	19	18 J	20	17	21	21	---	---	---	---	---	---
Beryllium (Be)			1.0 U	1.0 U	1.0 U	0.20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	---	---	---	---	---
Cadmium (Cd)	2	0.25	1.0 U	1.0 U	1.0 U	0.20 U	1.0 U	1.0 U	1 U ^	1.0 U	1.0 U	---	---	---	---	---	---
Calcium (Ca)			26,000	33,000	29,000	33,000	30,000	26,000	29,000	31,000	29,000	---	---	---	---	---	---
Chromium (Cr)	570	74	19	15	17	11	22.7	17	15	14	15	---	---	---	---	---	---
Cobalt (Co)			10 U	10 U	10 U	2.0 U	10 U	10 U	10 U	10 U	10 U	---	---	---	---	---	---
Copper (Cu)	13	9	7.1	5.5	4.9	3.3	8.5	8.0	**9.3**	**11.0**	7.4	---	---	---	---	---	---
Hexavalent Chromium	16	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (Fe)		1,000	44 J	100 U	100 U	34 U	100 U	35 J	100 U	100 U	100 U	---	---	---	---	---	---
Lead (Pb)	65	2.5	5.0 U	5.0 U	5.0 U	1.3 U	1.4 J	5.0 U	5.0 U	5.0 U	5.0 U	---	---	---	---	---	---
Magnesium (Mg)			2,200	2,800	2,500	2,400	2,600	2,200	2,000	2,600	2,500	---	---	---	---	---	---
Manganese (Mn)			150	32	35	62	24	90	200	13	16	---	---	---	---	---	---
Mercury (Hg)	1.4	0.77	0.20 U	0.20 U	0.20 U	0.098 J	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	---	---	---	---	---	---
Nickel (Ni)	470	52	2 J	1.6 J	1.3 J	1.5 U	10 U	1.5 J	1.7 J ^	4.1 J	1.4 J	---	---	---	---	---	---
Potassium (K)			2,000 J	3,300 J	2500 J	3,200 J	2,200 J	2,100 J	950 J	3,200 J	2300 J	---	---	---	---	---	---
Selenium (Se)		5	10 U	10 U	10 U	2.7 U	10 U	10 U	10 U	10 U	10 U	---	---	---	---	---	---
Silver (Ag)	3.2		5.0 U	5.0 U	5.0 U	1.8 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	---	---	---	---	---	---
Sodium (Na)			42,000	34,000	43,000	48,000	35,000	42,000	40,000	33,000	44,000	---	---	---	---	---	---
Thallium (Tl)			10 U	2.6 U	10 U	1.4 U	10 UJ	10 U	10 U	10 U	10 U	---	---	---	---	---	---
Vanadium (V)			10 U	10 U	10 U	1.5 U	10 U	10 U	10 U	10 U	10 U	---	---	---	---	---	---
Zinc (Zn)	120	120	50 U	50 U	6.8 J	10 U	50 U	50 U	10 J	12 J	7.6 J	---	---	---	---	---	---

AWQC - Ambient Water Quality Criteria
* Value for Trivalent Chromium used as a surrogate for Chromium
--- denotes not analyzed for; U = analyte was analyzed for but not detected above the indicated detection limit;
J = value was estimated; ^ = Instrument related QC exceeds the control limits.
Shaded and bolded values exceed AWQC values.

Prepared by / Date: PG 09/14/11
Checked by / Date: ARM 09/29/11

Table 6
Summary of Compounds Detected in Surface Water (March 2011 - December 2012)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-1 Mar-11	CSW-1 Jun-11	CSW-1 Nov-11	CSW-1 Mar-12	CSW-1 Sep-12	CSW-2 Mar-11	CSW-2 Nov-11	CSW-2 Dec-11	CSW-2 Mar-12	CSW-2 Jun-12	CSW-2 Dec-12	CSW-3 Mar-11
Chlorinated Ethenes (ug/L)														
Tetrachloroethene			---	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)			---	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.44 J
cis-1,2-Dichloroethene			---	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Metals, Total (ug/L)														
Calcium (Ca)			---	24,000	---	---	---	---	---	---	---	---	---	---
Hexavalent Chromium	16	11	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Magnesium (Mg)			---	1,800	---	---	---	---	---	---	---	---	---	---
Potassium (K)			---	2,600 J	---	---	---	---	---	---	---	---	---	---
Sodium (Na)			---	26,000	---	---	---	---	---	---	---	---	---	---
Metals, Dissolved (ug/L)														
Aluminum (Al)	750	87	---	100 U	13 J	16 J	100 U	---	100 U	100 U	15 J	100 U	200 U	---
Antimony (Sb)			---	6.0 U	1.6 J	6.0 U	6.0 U	---	1.6 J	6.0 U	6.0 U	6.0 U	6.0 U	---
Arsenic (As)	340	150	---	10 U	10 U	2.3 J	5.1 J	---	10 U	10 U	4.2 J	3.8 J	10 U	---
Barium (Ba)			---	21	20	17	14	---	20	14	17	13	16	---
Calcium (Ca)			---	26,000	29,000	25,000	23,000	---	29,000	23,000	25,000	24,000	27,000	---
Chromium (Cr)	570	74	---	5.0 U	5.0 U	5.0 U	5.0 U	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	---
Cobalt (Co)			---	10 U	10 U	10 U	10 U	---	10 U	10 U	10 U	10 U	4.0 U	---
Copper (Cu)	13	9	---	3.0 U	3.7	3.9 J	10 U	---	3.0 U	3.0 U	2.6 J	10 U	10 U	---
Iron (Fe)		1,000	---	36 J	20 J	31 J	100 U	---	20 J	18 J	30 J	32 J	50 U	---
Lead (Pb)	65	2.5	---	5.0 U	1.9 J	5.0 U	5.0 U	---	1.4 J	5.0 U	1.7 J	5.0 U	5.0 U	---
Magnesium (Mg)			---	2,000	2,500	1,900	1,700	---	2,500	1,900	1,900	1,800	2,100	---
Manganese (Mn)			---	15	21	19	10 U	---	14	23	13	7.4 J	9.3	---
Nickel (Ni)	470	52	---	10 U	3.4 J	1.8 J	10 U	---	10 U	10 U	10 U	10 U	10 U	---
Potassium (K)			---	2,400 J	2,500 J	3,000 J	3,400 J	---	3,700 J	1,500 J	3,100 J	2,600 J	3400	---
Sodium (Na)			---	28,000 B	36,000	27,000	22,000	---	37,000	24,000 B	27,000	20,000	22,000	---
Zinc (Zn)	120	120	---	50 U	11 J	10 J	50 U	---	50 U	50 U	50 U	50 U	50 U	---
Inorganics (mg/L)														
Chloride			---	38	46	38	28	---	46	37	15	18	40	---
Sulfate			---	10	10	9	15	---	11	12	4.1	3.4	16	---

AWQC - Ambient Water Quality Criteria

* Value for Trivalent Chromium used as a surrogate for Chromium

--- denotes not analyzed for; U = not detected above the indicated detection limit;

B = compound was detected in the blank; J = value was estimated

Shaded and bolded values exceed AWQC values.

Table 6
Summary of Compounds Detected in Surface Water (March 2011 - December 2012)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-3 Jun-11	CSW-3 Nov-11	CSW-3 Mar-12	CSW-3 Sep-12	CSW-3 DUP Sep-12	CSW-3 Dec-12	CSW-3A Mar-11	CSW-3A DUP Mar-11	CSW-3A Jun-11	CSW-3A Nov-11	CSW-3A Dec-11	CSW-3A Mar-12
Chlorinated Ethenes (ug/L)														
Tetrachloroethene			1.0 U	1.0 U	1.0 U	1.0 J	0.66 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)			2.2	0.36 J	0.58 J	28 J	27	1.8	0.82 J	0.73 J	1.8	1.0 U	0.43 J	0.68 J
cis-1,2-Dichloroethene			1.0 U	1.0 U	1.0 U	1.4 J	1.5	1.0 U	1.0 U	1.0 U	0.29 J	1.0 U	1.0 U	1.0 U
Metals, Total (ug/L)														
Calcium (Ca)			26,000	---	---	---	---	---	---	---	33,000	---	---	---
Hexavalent Chromium	16	11	**80**	5.3	**17**	**320**	**330**	**34**	**19**	**20**	**110**	7.9	11	**17**
Magnesium (Mg)			2,000	---	---	---	---	---	---	---	2,400	---	---	---
Potassium (K)			3,100 J	---	---	---	---	---	---	---	3,800 J	---	---	---
Sodium (Na)			26,000	---	---	---	---	---	---	---	54,000	---	---	---
Metals, Dissolved (ug/L)														
Aluminum (Al)	750	87	100 U	14 J	17 J	100 U	100 U	200 U	13 J	13 J	100 U	16 J	100 U	16 J
Antimony (Sb)			6.0 U	1.6 J	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	1.6 J	6.0 U	6.0 U
Arsenic (As)	340	150	10 U	2.9 J	2.8 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	2.1 J
Barium (Ba)			25	20	18	27	27	19	23	23	28	20	15	17
Calcium (Ca)			30,000	30,000	25,000	30,000	30,000	28,000	30,000	29,000	34,000	31,000	24,000	26,000
Chromium (Cr)	570	74	**84**	6.8	12	**330**	**310**	33	18	17	**100**	13	14	15
Cobalt (Co)			10 U	10 U	10 U	10 U	10 U	4.0 U	10 U	10 U	2.3 J	1.5 J	10 U	10 U
Copper (Cu)	13	9	17 B	3.0 U	5.2 J	**23**	**21**	3.8 J	4.3	5.2	17 B	3.4	2.7 J	3.5 J
Iron (Fe)		1,000	100 U	18 J	25 J	100 U	100 U	50 U	16 J	19 J	14 J	21 J	18 J	36 J
Lead (Pb)	65	2.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 U
Magnesium (Mg)			2,300	2,500	2,000	2,300	2,300	2,200	2,500	2,500	2,600	2,600	2,000	2,000
Manganese (Mn)			23	21	15	49 J	80 J	11	59	59	210	130	120	57
Nickel (Ni)	470	52	1.4 J	10 U	10 U	3.8 J	4.1 J	10 U	1.6 J	1.4 J	5.2 J	2.4 J	1.3 J	1.5 J
Potassium (K)			3,300 J	3,400 J	2,600 J	4,900 B	4,900 B	3,600	2,700 J	2,600 J	3,500 J	3,700 J	1,800 J	2,800 J
Sodium (Na)			30,000 B	37,000	27,000	31,000	31,000	23,000	42,000	41,000	56,000 B	40,000	27,000 B	30,000
Zinc (Zn)	120	120	50 U	50 U	13 J	50 U	50 U	2.5 J	7.8 J	8.5 J	50 U	50 U	50 U	50 U
Inorganics (mg/L)														
Chloride			42	44	37	25	25	38	---	---	63	47	39	40
Sulfate			17	12	11	39	40	18	---	---	36	17	18	14

AWQC - Ambient Water Quality Criteria

* Value for Trivalent Chromium used as a surrogate for Chromium

--- denotes not analyzed for; U = not detected above the indicated detection limit;

B = compound was detected in the blank; J = value was estimated

Shaded and bolded values exceed AWQC values.

Table 6
Summary of Compounds Detected in Surface Water (March 2011 - December 2012)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-3A Jun-12	CSW-3A Sep-12	CSW-3A Dec-12	CSW-4 Mar-11	CSW-4 Nov-11	CSW-4 Dec-11	CSW-4 Mar-12	CSW-4 Jun-12	CSW-4 Dec-12	CSW-5 Mar-11	CSW-5 Jun-11	CSW-5 Nov-11
Chlorinated Ethenes (ug/L)														
Tetrachloroethene			1.0 U	0.32 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)			1.4	11	1.7	0.49 J	0.33 J	0.34 J	0.37 J	0.51 J	0.79 J	0.36 J	1	1.0 U
cis-1,2-Dichloroethene			0.29 J	0.65 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Metals, Total (ug/L)														
Calcium (Ca)			---	---	---	---	---	---	---	---	---	---	30,000	---
Hexavalent Chromium	16	11	**58**	**270**	**37**	**19**	5.3	**13**	**17**	**56**	**36**	**18**	**18**	6.6
Magnesium (Mg)			---	---	---	---	---	---	---	---	---	---	2,300	---
Potassium (K)			---	---	---	---	---	---	---	---	---	---	2,900 J	---
Sodium (Na)			---	---	---	---	---	---	---	---	---	---	42,000	---
Metals, Dissolved (ug/L)														
Aluminum (Al)	750	87	15 J	100 U	200 U	12 J	13 J	100 U	17 J	13 J	200 U	100 U	100 U	100 U
Antimony (Sb)			6.0 U	6 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	1.6 J	6.0 U	6.0 U
Arsenic (As)	340	150	10 U	10 U	10 U	10 U	10 U	10 U	2.0 J	3.7 J	10 U	10 U	10 U	10 U
Barium (Ba)			16	26	18	23	20	14	17	16	17	21	21	19
Calcium (Ca)			25,000	32,000	29,000	29,000	31,000	23,000	26,000	26,000	28,000	29,000	30,000	30,000
Chromium (Cr)	570	74	57	**270**	36	17	13	15	15	55	35	15	18	11
Cobalt (Co)			10 U	10 U	4.0 U	10 U	10 U	10 U	10 U	10 U	4.0 U	10 U	10 U	10 U
Copper (Cu)	13	9	5.7 J	**14**	4.2 J	4.9	4.2	2.7 J	5.8 J	5.7 J	3.5 J	7.4	13 B	5.4
Iron (Fe)		1,000	28 J	13 J	50 U	100 U	22 J	16 J	34 J	20 J	50 U	100 U	19 J	23 J
Lead (Pb)	65	2.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.6 J
Magnesium (Mg)			2,000	2,400	2,300	2,500	2,600	1,900	2,000	2,000	2,200	2,500	2,300	2,500
Manganese (Mn)			62	67	43	35	82	82	23	10	12	16	97	46
Nickel (Ni)	470	52	10 U	4.3 J	10 U	1.3 J	2.7 J	1.4 J	1.4 J	10 U	1.3 J	1.4 J	1.6 J	1.6 J
Potassium (K)			3,000 J	5,100 B	3,600	2,500 J	4,000	1,600 J	2,500 J	3,200 J	3,600	2,300 J	2,700 J	3,500 J
Sodium (Na)			26,000	33,000	26,000	43,000	41,000	26,000 B	31,000	26,000	25,000	44,000	45,000 B	40,000
Zinc (Zn)	120	120	50 U	50 U	58	6.8 J	50 U	50 U	50 U	50 U	1.5 J	7.6 J	50 U	50 U
Inorganics (mg/L)														
Chloride			36	28	39	---	48	39	40	36	38	---	58	53
Sulfate			18	46	20	---	17	18	14	18	20	---	17	18

AWQC - Ambient Water Quality Criteria

* Value for Trivalent Chromium used as a surrogate for Chromium

--- denotes not analyzed for; U = not detected above the indicated detection limit;

B = compound was detected in the blank; J = value was estimated

Shaded and bolded values exceed AWQC values.

Table 6
Summary of Compounds Detected in Surface Water (March 2011 - December 2012)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-5 Dec-11	CSW-5 Mar-12	CSW-5 Jun-12	CSW-5 Sep-12	CSW-5 Dec-12	CSW-18 Mar-11	CSW-18 Jun-11	CSW-19 Mar-11	BKGD-1 Jun-11	BKGD-1 Nov-11	BKGD-1 Mar-12	BKGD-1 Sep-12
Chlorinated Ethenes (ug/L)														
Tetrachloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)			1.0 U	1.0 U	0.35 J	0.61 J	1.0 U	---	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene			1.0 U	1.0 U	1.0 U	0.23 J	1.0 U	---	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U
Metals, Total (ug/L)														
Calcium (Ca)			---	---	---	---	---	---	24,000	---	25,000	---	---	---
Hexavalent Chromium	16	11	**13**	**16**	**23**	9.0	**24**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Magnesium (Mg)			---	---	---	---	---	---	1,900	---	1,800	---	---	---
Potassium (K)			---	---	---	---	---	---	2,200 J	---	2,200 J	---	---	---
Sodium (Na)			---	---	---	---	---	---	25,000	---	26,000	---	---	---
Metals, Dissolved (ug/L)														
Aluminum (Al)	750	87	100 U	15 J	100 U	100 U	200 U	---	100 U	---	100 U	100 U	15 J	100 U
Antimony (Sb)			6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	---	6.0 U	---	6.0 U	1.9 J	6.0 U	6.0 U
Arsenic (As)	340	150	10 U	2.2 J	4.1 J	10 U	10 U	---	10 U	---	10 U	3.0 J	3.4 J	10 U
Barium (Ba)			15	18	15	15	16	---	22	---	26	20	18	23
Calcium (Ca)			25,000	26,000	24,000	26,000	25,000	---	28,000	---	26,000	29,000	25,000	23,000
Chromium (Cr)	570	74	12	12	25	7.8	23	---	5.0 U	---	5.0 U	5.0 U	5.0 U	5.0 U
Cobalt (Co)			10 U	10 U	10 U	10 U	4.0 U	---	10 U	---	10 U	10 U	10 U	10 U
Copper (Cu)	13	9	4.2	**11**	9.0 J	10 U	6.8 J	---	3.0 U	---	3.0 U	3.0 U	3.6 J	10 U
Iron (Fe)		1,000	22 J	24 J	25 J	17 J	50 U	---	22 J	---	84 J	19 J	34 J	15 J
Lead (Pb)	65	2.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	---	5.0 U	---	5.0 U	5.0 U	5.0 U	5.0 U
Magnesium (Mg)			2,100	2,000	1,900	1,900	2,000	---	2,200	---	2,000	2,500	1,900	1,700
Manganese (Mn)			58	25	66	120	16	---	12	---	300	22	18	220
Nickel (Ni)	470	52	1.5 J	2.1 J	10 U	10 U	10 U	---	10 U	---	10 U	10 U	10 U	10 U
Potassium (K)			2,300 J	2,800 J	2,900 J	3,500 J	3,300	---	2,200 J	---	2,200 J	3,700 J	2,800 J	3,400 J
Sodium (Na)			29,000 B	32,000	27,000	37,000	24,000	---	30,000 B	---	29,000 B	36,000 B	27,000	23,000
Zinc (Zn)	120	120	50 U	6.9 J	50 U	50 U	50 U	---	50 U	---	50 U	50 U	15 J	50 U
Inorganics (mg/L)														
Chloride			42	42	38	42	37	---	44	---	38	46	38	28
Sulfate			18	14	15	25	21	---	11	---	11	10	8.4	15

AWQC - Ambient Water Quality Criteria

* Value for Trivalent Chromium used as a surrogate for Chromium

--- denotes not analyzed for; U = not detected above the indicated detection limit;

B = compound was detected in the blank; J = value was estimated

Shaded and bolded values exceed AWQC values.

Table 6
Summary of Compounds Detected in Surface Water (March 2011 - December 2012)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	BKGD-2 Jun-11	BKGD-2 Nov-11	BKGD-2 Mar-12	BKGD-2 Sep-12
Chlorinated Ethenes (ug/L)						
Tetrachloroethene			1 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)			1 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene			1 U	1.0 U	1.0 U	1.0 U
Metals, Total (ug/L)						
Calcium (Ca)			26,000	---	---	---
Hexavalent Chromium	16	11	5.0 U	5.0 U	5.0 U	5.0 U
Magnesium (Mg)			1,900	---	---	---
Potassium (K)			2,500 J	---	---	---
Sodium (Na)			28,000	---	---	---
Metals, Dissolved (ug/L)						
Aluminum (Al)	750	87	100 U	13 J	14 J	100 U
Antimony (Sb)			6.0 U	6.0 U	6.0 U	6.0 U
Arsenic (As)	340	150	10 U	3.4 J	2.2 J	10 U
Barium (Ba)			26	20	17	20
Calcium (Ca)			26,000	29,000	25,000	23,000
Chromium (Cr)	570	74	5.0 U	5.0 U	5.0 U	5.0 U
Cobalt (Co)			10 U	10 U	10 U	10 U
Copper (Cu)	13	9	2.5 J B	3.0 U	2.6 J	10 U
Iron (Fe)		1,000	68 J	19 J	32 J	100 U
Lead (Pb)	65	2.5	5.0 U	5.0 U	5.0 U	5.0 U
Magnesium (Mg)			2,000	2,500	1,900	1,800
Manganese (Mn)			200	21	19	5.6 J
Nickel (Ni)	470	52	10 U	10 U	10 U	10 U
Potassium (K)			1,900 J	3,100 J	2,700 J	3,400 J
Sodium (Na)			28,000 B	37,000 B	27,000	22,000
Zinc (Zn)	120	120	50 U	50 U	50 U	50 U
Inorganics (mg/L)						
Chloride			37	46	38	28
Sulfate			10	10	8.5	15

AWQC - Ambient Water Quality Criteria

* Value for Trivalent Chromium used as a surrogate for Chromium

--- denotes not analyzed for; U = not detected above the indicated detection limit;

B = compound was detected in the blank; J = value was estimated

Shaded and bolded values exceed AWQC values.

Prepared by / Date: KJC 02/22/13

Checked by / Date: CTM 02/22/13

Table 6
Summary of Compounds Detected in Surface Water (November 2011 - June 2013)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-1 Nov-11	CSW-1 Mar-12	CSW-1 Sep-12	CSW-1 Mar-13	CSW-2 Nov-11	CSW-2 Dec-11	CSW-2 Mar-12	CSW-2 Jun-12	CSW-2 Dec-12	CSW-2 Mar-13	CSW-2 Jun-13	CSW-3 Nov-11	CSW-3 Mar-12	CSW-3 Sep-12	CSW-3 DUP Sep-12	CSW-3 Dec-12	CSW-3 Mar-13	CSW-3 DUP Mar-13	CSW-3 Jun-13
Chlorinated Ethenes (ug/L)																					
Tetrachloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 J	0.66 J	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0	0.36 J	0.58 J	28 J	27	1.8	0.75 J	0.6 J	1.0 U
cis-1,2-Dichloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4 J	1.5	1.0 U	1.0 U	1.0 U	1.0 U
Metals, Total (ug/L)																					
Calcium (Ca)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Hexavalent Chromium	16	11	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.3	**17**	**320**	**330**	**34**	**12**	**14**	**21**
Magnesium (Mg)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Potassium (K)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sodium (Na)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Metals, Dissolved (ug/L)																					
Aluminum (Al)	750	87	13 J	16 J	100 U	200 U	100 U	100 U	15 J	100 U	200 U	200 U	---	14 J	17 J	100 U	100 U	200 U	200 U	200 U	---
Antimony (Sb)			1.6 J	6.0 U	6.0 U	6.0 U	1.6 J	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	---	1.6 J	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	---
Arsenic (As)	340	150	10 U	2.3 J	5.1 J	10 U	10 U	10 U	4.2 J	3.8 J	10 U	10 U	---	2.9 J	2.8 J	10 U	10 U	10 U	10 U	10 U	---
Barium (Ba)			20	17	14	19	20	14	17	13	16	18	---	20	18	27	27	19	18	18	---
Calcium (Ca)			29,000	25,000	23,000	24,000	29,000	23,000	25,000	24,000	27,000	23,000	---	30,000	25,000	30,000	30,000	28,000	24,000	24,000	---
Chromium (Cr)	570	74	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	6.8	12	**330**	**310**	33	9.8	11	22
Cobalt (Co)			10 U	10 U	10 U	4.0 U	10 U	10 U	10 U	10 U	4.0 U	4.0 U	---	10 U	10 U	10 U	10 U	4.0 U	4.0 U	4.0 U	---
Copper (Cu)	13	9	3.7	3.9 J	10 U	10 U	3.0 U	3.0 U	2.6 J	10 U	10 U	10 U	10 U	3.0 U	5.2 J	**23**	**21**	3.8 J	10 U	10 U	1.7 J
Iron (Fe)		1,000	20 J	31 J	100 U	22 J	20 J	18 J	30 J	32 J	50 U	20 J	---	18 J	25 J	100 U	100 U	50 U	22 J	20 J	---
Lead (Pb)	65	2.5	1.9 J	5.0 U	5.0 U	5.0 U	1.4 J	5.0 U	1.7 J	5.0 U	5.0 U	5.0 U	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	---
Magnesium (Mg)			2,500	1,900	1,700	2,000	2,500	1,900	1,900	1,800	2,100	1,900	---	2,500	2,000	2,300	2,300	2,200	2,000	2,000	---
Manganese (Mn)			21	19	10 U	21	14	23	13	7.4 J	9.3	18	---	21	15	49 J	80 J	11	19	24	---
Nickel (Ni)	470	52	3.4 J	1.8 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	---	10 U	10 U	3.8 J	4.1 J	10 U	10 U	10 U	---
Potassium (K)			2,500 J	3,000 J	3,400 J	3300	3,700 J	1,500 J	3,100 J	2,600 J	3400	3200	---	3,400 J	2,600 J	4,900 B	4,900 B	3,600	3,200	3,300	---
Sodium (Na)			36,000	27,000	22,000	31,000	37,000	24,000 B	27,000	20,000	22,000	29,000	---	37,000	27,000	31,000	31,000	23,000	29,000	31,000	---
Zinc (Zn)	120	120	11 J	10 J	50 U	1.6 J	50 U	50 U	50 U	50 U	50 U	2.5 J	---	50 U	13 J	50 U	50 U	2.5 J	2.1 J	9 J	---
Inorganics (mg/L)																					
Chloride			46	38	28	54	46	37	15	18	40	54	---	44	37	25	25	38	62	54	---
Sulfate			10	9	15	12	11	12	4.1	3.4	16	12	---	12	11	39	40	18	14	13	---

Notes:
AWQC - Ambient Water Quality Criteria
* Value for Trivalent Chromium used as a surrogate for Chromium
--- denotes not analyzed for; U = not detected above the indicated detection limit;
B = compound was detected in the blank; J = value was estimated
Shaded and bolded values exceed AWQC values.

Table 6
Summary of Compounds Detected in Surface Water (November 2011 - June 2013)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-3A Nov-11	CSW-3A Dec-11	CSW-3A Mar-12	CSW-3A Jun-12	CSW-3A Sep-12	CSW-3A Dec-12	CSW-3A Mar-13	CSW-3A Jun-13	CSW-4 Nov-11	CSW-4 Dec-11	CSW-4 Mar-12	CSW-4 Jun-12	CSW-4 Dec-12	CSW-4 Mar-13	CSW-4 Jun-13
Chlorinated Ethenes (ug/L)																	
Tetrachloroethene			1.0 U	1.0 U	1.0 U	1.0 U	0.32 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)			1.0 U	0.43 J	0.68 J	1.4	11	1.7	0.75 J	1.1	0.33 J	0.34 J	0.37 J	0.51 J	0.79 J	0.55 J	0.58 J
cis-1,2-Dichloroethene			1.0 U	1.0 U	1.0 U	0.29 J	0.65 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Metals, Total (ug/L)																	
Calcium (Ca)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Hexavalent Chromium	16	11	7.9	11	**17**	**58**	**270**	**37**	**17**	**26**	5.3	**13**	**17**	**56**	**36**	**17**	**24**
Magnesium (Mg)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Potassium (K)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sodium (Na)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Metals, Dissolved (ug/L)																	
Aluminum (Al)	750	87	16 J	100 U	16 J	15 J	100 U	200 U	200 U	---	13 J	100 U	17 J	13 J	200 U	200 U	---
Antimony (Sb)			1.6 J	6.0 U	6.0 U	6.0 U	6 U	6.0 U	6.0 U	---	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	---
Arsenic (As)	340	150	10 U	10 U	2.1 J	10 U	10 U	10 U	10 U	---	10 U	10 U	2.0 J	3.7 J	10 U	10 U	---
Barium (Ba)			20	15	17	16	26	18	18	---	20	14	17	16	17	18	---
Calcium (Ca)			31,000	24,000	26,000	25,000	32,000	29,000	23,000	---	31,000	23,000	26,000	26,000	28,000	24,000	---
Chromium (Cr)	570	74	13	14	15	57	**270**	36	12	29	13	15	15	55	35	13	29
Cobalt (Co)			1.5 J	10 U	10 U	10 U	10 U	4.0 U	4.0 U	---	10 U	10 U	10 U	10 U	4.0 U	4.0 U	---
Copper (Cu)	13	9	3.4	2.7 J	3.5 J	5.7 J	**14**	4.2 J	10 U	3.0 J	4.2	2.7 J	5.8 J	5.7 J	3.5 J	10 U	2.8 J
Iron (Fe)		1,000	21 J	18 J	36 J	28 J	13 J	50 U	19 J	---	22 J	16 J	34 J	20 J	50 U	50 U	---
Lead (Pb)	65	2.5	5.0 U	5.0 U	5 U	5.0 U	5.0 U	5.0 U	5.0 U	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	---
Magnesium (Mg)			2,600	2,000	2,000	2,000	2,400	2,300	2,000	---	2,600	1,900	2,000	2,000	2,200	2,000	---
Manganese (Mn)			130	120	57	62	67	43	33	---	82	82	23	10	12	22	---
Nickel (Ni)	470	52	2.4 J	1.3 J	1.5 J	10 U	4.3 J	10 U	1.6 J	---	2.7 J	1.4 J	1.4 J	10 U	1.3 J	1.4 J	---
Potassium (K)			3,700 J	1,800 J	2,800 J	3,000 J	5,100 B	3,600	3,100	---	4,000	1,600 J	2,500 J	3,200 J	3,600	3,200	---
Sodium (Na)			40,000	27,000 B	30,000	26,000	33,000	26,000	33,000	---	41,000	26,000 B	31,000	26,000	25,000	34,000	---
Zinc (Zn)	120	120	50 U	50 U	50 U	50 U	50 U	58	1.5 J	---	50 U	50 U	50 U	50 U	1.5 J	2.2 J	---
Inorganics (mg/L)																	
Chloride			47	39	40	36	28	39	63	---	48	39	40	36	38	63	---
Sulfate			17	18	14	18	46	20	14	---	17	18	14	18	20	14	---

Notes:
AWQC - Ambient Water Quality Criteria
* Value for Trivalent Chromium used as a surrogate for Chromium
--- denotes not analyzed for; U = not detected above the indicated detection limit;
B = compound was detected in the blank; J = value was estimated
Shaded and bolded values exceed AWQC values.

Table 6
Summary of Compounds Detected in Surface Water (November 2011 - June 2013)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-5 Nov-11	CSW-5 Dec-11	CSW-5 Mar-12	CSW-5 Jun-12	CSW-5 Sep-12	CSW-5 Dec-12	CSW-5 Mar-13	CSW-5 Jun-13	BKGD-1 Nov-11	BKGD-1 Mar-12	BKGD-1 Sep-12	BKGD-1 Mar-13	BKGD-2 Nov-11	BKGD-2 Mar-12	BKGD-2 Sep-12	BKGD-2 Mar-13
Chlorinated Ethenes (ug/L)																		
Tetrachloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)			1.0 U	1.0 U	1.0 U	0.35 J	0.61 J	1.0 U	1.0 U	0.57 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene			1.0 U	1.0 U	1.0 U	1.0 U	0.23 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Metals, Total (ug/L)																		
Calcium (Ca)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Hexavalent Chromium	16	11	6.6	**13**	**16**	**23**	9.0	**24**	**16**	**16**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Magnesium (Mg)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Potassium (K)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sodium (Na)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Metals, Dissolved (ug/L)																		
Aluminum (Al)	750	87	100 U	100 U	15 J	100 U	100 U	200 U	200 U	---	100 U	15 J	100 U	200 U	13 J	14 J	100 U	200 U
Antimony (Sb)			6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	---	1.9 J	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U
Arsenic (As)	340	150	10 U	10 U	2.2 J	4.1 J	10 U	10 U	10 U	---	3.0 J	3.4 J	10 U	10 U	3.4 J	2.2 J	10 U	10 U
Barium (Ba)			19	15	18	15	15	16	17	---	20	18	23	18	20	17	20	18
Calcium (Ca)			30,000	25,000	26,000	24,000	26,000	25,000	23,000	---	29,000	25,000	23,000	23,000	29,000	25,000	23,000	23,000
Chromium (Cr)	570	74	11	12	12	25	7.8	23	13	20	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cobalt (Co)			10 U	10 U	10 U	10 U	10 U	4.0 U	4.0 U	---	10 U	10 U	10 U	4.0 U	10 U	10 U	10 U	4.0 U
Copper (Cu)	13	9	5.4	4.2	**11**	9.0 J	10 U	6.8 J	3.0 J	5.6 J	3.0 U	3.6 J	10 U	10 U	3.0 U	2.6 J	10 U	10 U
Iron (Fe)		1,000	23 J	22 J	24 J	25 J	17 J	50 U	50 U	---	19 J	34 J	15 J	24 J	19 J	32 J	100 U	50 U
Lead (Pb)	65	2.5	1.6 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Magnesium (Mg)			2,500	2,100	2,000	1,900	1,900	2,000	2,000	---	2,500	1,900	1,700	1,900	2,500	1,900	1,800	2,000
Manganese (Mn)			46	58	25	66	120	16	12	---	22	18	220	19	21	19	5.6 J	20
Nickel (Ni)	470	52	1.6 J	1.5 J	2.1 J	10 U	10 U	10 U	10 U	---	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Potassium (K)			3,500 J	2,300 J	2,800 J	2,900 J	3,500 J	3,300	3,100	---	3,700 J	2,800 J	3,400 J	3100	3,100 J	2,700 J	3,400 J	3100
Sodium (Na)			40,000	29,000 B	32,000	27,000	37,000	24,000	34,000	---	36,000 B	27000	23000	30000	37,000 B	27000	22000	30000
Zinc (Zn)	120	120	50 U	50 U	6.9 J	50 U	50 U	50 U	50 U	---	50 U	15 J	50 U	3.6 J	50 U	50 U	50 U	2.4 J
Inorganics (mg/L)																		
Chloride			53	42	42	38	42	37	64	---	46	38	28	---	46	38	28	---
Sulfate			18	18	14	15	25	21	14	---	10	8.4	15	11	10	8.5	15	11

Notes:
AWQC - Ambient Water Quality Criteria
* Value for Trivalent Chromium used as a surrogate for Chromium
--- denotes not analyzed for; U = not detected above the indicated detection limit;
B = compound was detected in the blank; J = value was estimated
Shaded and bolded values exceed AWQC values.

Prepared by / Date: HTS 08/13/13
Checked by / Date: CTM 08/15/13

Table 6
Summary of Compounds Detected in Surface Water
(March 2013 - June 2015)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-1 Mar-13	CSW-2 Mar-13	CSW-2 Jun-13	CSW-2 Apr-14	CSW-2 Jun-14	CSW-2 Dec-14	CSW-2 Mar-15	CSW-2 DUP Mar-15	CSW-3 Mar-13	CSW-3 DUP Mar-13	CSW-3 Jun-13	CSW-3 Oct-13	CSW-3 Dec-13	CSW-3 Apr-14	CSW-3 DUP Apr-14	CSW-3 Jun-14	CSW-3 Sep-14
Chlorinated Ethenes (ug/L)																			
Tetrachloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.81 J	1.0 U	1.0 U	1.0 U	1.0 U	0.75 J
Trichloroethene (TCE)			1.0 U	1.0 U	1.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.75 J	0.6 J	1.0 U	39	9.7	0.61 J	0.63 J	8.1	44
cis-1,2-Dichloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.5	1.0 U	1.0 U	1.0 U	0.90 J	6.0
Metals, Total (ug/L)																			
Calcium (Ca)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Hexavalent Chromium	16	11	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10	5.0 U	5.0 U	**12**	**14**	**21**	**420**	**180**	**14**	**13**	**110**	**830**
Magnesium (Mg)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Potassium (K)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sodium (Na)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Metals, Dissolved (ug/L)																			
Aluminum (Al)	750	87	200 U	200 U	---	---	---	---	---	---	200 U	200 U	---	**120 J**	---	---	---	---	---
Antimony (Sb)			6.0 U	6.0 U	---	---	---	---	---	---	6.0 U	6.0 U	---	6 U	---	---	---	---	---
Arsenic (As)	340	150	10 U	10 U	---	---	---	---	---	---	10 U	10 U	---	50 U	---	---	---	---	---
Barium (Ba)			19	18	---	---	---	---	---	---	18	18	---	30	---	---	---	---	---
Calcium (Ca)			24,000	23,000	---	28,000	---	---	---	---	24,000	24,000	---	30,000	---	29,000 J	29,000	---	---
Chromium (Cr)	570	74	5.0 U	5.0 U	5.0 U	5.0 U	2.1 J	5.0 U	5.0 U	5.0 U	9.8	11	22	**480**	**200**	13	12	**120**	**820**
Cobalt (Co)			4.0 U	4.0 U	---	---	---	---	---	---	4.0 U	4.0 U	---	4.0 U	---	---	---	---	---
Copper (Cu)	13	9	10 U	10 U	10 U	10 U	1.9 J	10 U	10 U	10 U	10 U	10 U	1.7 J	**22**	**10**	1.8 J	2.0 J	**13**	12 U
Iron (Fe)		1,000	22 J	20 J	---	---	---	---	---	---	22 J	20 J	---	64	---	---	---	---	---
Lead (Pb)	65	2.5	5.0 U	5.0 U	---	---	---	---	---	---	5.0 U	5.0 U	---	5.0 U	---	---	---	---	---
Magnesium (Mg)			2,000	1,900	---	2,500	---	---	---	---	2,000	2,000	---	2,400	---	2,600	2,600	---	---
Manganese (Mn)			21	18	---	---	---	---	---	---	19	24	---	100	---	---	---	---	---
Nickel (Ni)	470	52	10 U	10 U	---	---	---	---	---	---	10 U	10 U	---	2.9 J	---	---	---	---	---
Potassium (K)			3300	3200	---	3700	---	---	---	---	3,200	3,300	---	4,700	---	3,800	3,800	---	---
Sodium (Na)			31,000	29,000	---	40,000	---	---	---	---	29,000	31,000	---	30,000	---	45,000	41,000	---	---
Zinc (Zn)	120	120	1.6 J	2.5 J	---	---	---	---	---	---	2.1 J	9.0 J	---	6.5 J	---	---	---	---	---
Inorganics (mg/L)																			
Chloride			54	54	---	---	---	---	---	---	62	54	---	23	---	78	78	---	---
Sulfate			12	12	---	---	---	---	---	---	14	13	---	32	---	12 J	12	---	---

AWQC - Ambient Water Quality Criteria
* Value for Trivalent Chromium used as a surrogate for Chromium
--- denotes not analyzed for; U = not detected above the indicated detection limit;
B = compound was detected in the blank; J = value was estimated
Shaded and bolded values exceed AWQC values.

Table 6
Summary of Compounds Detected in Surface Water
(March 2013 - June 2015)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-3 DUP Sep-14	CSW-3 Dec-14	CSW-3 Mar-15	CSW-3 Jun-15	CSW-3A Mar-13	CSW-3A Jun-13	CSW-3A Oct-13	CSW-3A Dec-13	CSW-3A Apr-14	CSW-3A Jun-14	CSW-3A Sep-14	CSW-3A Dec-14	CSW-3A Mar-15	CSW-3A Jun-15	CSW-4 Mar-13	CSW-4 Jun-13	CSW-4 Apr-14
Chlorinated Ethenes (ug/L)																			
Tetrachloroethene			0.89 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.56 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)			45	3.9	0.61 J	7.9	0.75 J	1.1	17	8.0	0.86 J	4.1	25	1.0 U	0.79 J	4.7	0.55 J	0.58 J	0.79 J
cis-1,2-Dichloroethene			5.8	1.0 U	1.0 U	0.90 J	1.0 U	1.0 U	1.3	1.0 U	1.0 U	1.0 U	2.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Metals, Total (ug/L)																			
Calcium (Ca)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Hexavalent Chromium	16	11	**830**	**28**	**12**	**190**	**17**	**26**	**330**	**180**	**15**	**85**	**560**	**33 J**	**14**	**180**	**17**	**24**	**15**
Magnesium (Mg)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Potassium (K)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sodium (Na)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Metals, Dissolved (ug/L)																			
Aluminum (Al)	750	87	---	---	---	200 U	200 U	---	**120 J**	---	---	---	---	---	---	200 U	200 U	---	---
Antimony (Sb)			---	---	---	6.0 U	6.0 U	---	6.0 U	---	---	---	---	---	---	6.0 U	6.0 U	---	---
Arsenic (As)	340	150	---	---	---	10 U	10 U	---	10 U	---	---	---	---	---	---	10 U	10 U	---	---
Barium (Ba)			---	---	---	21	18	---	28	---	---	---	---	---	---	22	18	---	---
Calcium (Ca)			---	---	25,000	26,000	23,000	---	32,000	---	29,000	---	---	---	27,000	28,000	24,000	---	29,000
Chromium (Cr)	570	74	**780**	22	11	**190**	12	29	**370**	**190**	14	**92**	**560**	7.3	14	**190**	13	29	14
Cobalt (Co)			---	---	---	4.0 U	4.0 U	---	4.0 U	---	---	---	---	---	---	4.0 U	4.0 U	---	---
Copper (Cu)	13	9	12 U	10 U	10 U	**9.6 J**	10 U	3 J	**12**	**9.5 J**	1.9 J	9.0 J	10 U	10 U	1.9 J	6.2 J	10 U	2.8 J	3.0 J
Iron (Fe)		1,000	---	---	---	50 U	19 J	---	65	---	---	---	---	---	---	50 U	50 U	---	---
Lead (Pb)	65	2.5	---	---	---	5.0 U	5.0 U	---	5.0 U	---	---	---	---	---	---	**3.0 J**	5.0 U	---	---
Magnesium (Mg)			---	---	2,600	2,200	2,000	---	2,500	---	2,600	---	---	---	2,800	2,400	2,000	---	2,600
Manganese (Mn)			---	---	---	9.5	33	---	130	---	---	---	---	---	---	6.6	22	---	---
Nickel (Ni)	470	52	---	---	---	2.2 J	1.6 J	---	2.8 J	---	---	---	---	---	---	2.0 J	1.4 J	---	---
Potassium (K)			---	---	3,700	3,700	3,100	---	5,000	---	3,800	---	---	---	3,800	4,100	3,200	---	3,700
Sodium (Na)			---	---	40,000	26,000	33,000	---	32,000	---	51,000	---	---	---	57,000	40,000	34,000	---	50,000
Zinc (Zn)	120	120	---	---	---	50 U	1.5 J	---	3.4 J	---	---	---	---	---	---	50 U	2.2 J	---	---
Inorganics (mg/L)																			
Chloride			---	---	---	---	63	---	26	---	93	---	---	---	---	---	63	---	96
Sulfate			---	---	---	---	14	---	34	---	13	---	---	---	---	---	14	---	13

AWQC - Ambient Water Quality Criteria
* Value for Trivalent Chromium used as a surrogate for Chromium
--- denotes not analyzed for; U = not detected above the indicated detection limit;
B = compound was detected in the blank; J = value was estimated
Shaded and bolded values exceed AWQC values.

Table 6
Summary of Compounds Detected in Surface Water
(March 2013 - June 2015)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-4 Dec-14	CSW-4 Mar-15	CSW-5 Mar-13	CSW-5 Jun-13	CSW-5 Oct-13	CSW-5 Dec-13	CSW-5 Apr-14	CSW-5 Jun-14	CSW-5 Sep-14	CSW-5 Dec-14	CSW-5 Mar-15	CSW-5 Jun-15	BKGD-1 Mar-13	BKGD-1 Dec-13	BKGD-1 Apr-14	BKGD-2 Mar-13	BKGD-2 Dec-13	BKGD-2 Apr-14
Chlorinated Ethenes (ug/L)																				
Tetrachloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)			1.0 U	0.68 J	1.0 U	0.57 J	1.1	0.86 J	1.0 U	1.0	1.2 U	1.0 U	1.0 U	0.94 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Metals, Total (ug/L)																				
Calcium (Ca)			---	--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Hexavalent Chromium	16	11	**22**	**15**	**16**	**16**	5.0 U	6.1	**13**	7.7	6.0	5.2 J	**12**	11	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Magnesium (Mg)			---	--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Potassium (K)			---	--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sodium (Na)			---	--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Metals, Dissolved (ug/L)																				
Aluminum (Al)	750	87	---	--	200 U	---	200 U	---	---	---	---	---	---	200 U	200 U	---	---	200 U	---	---
Antimony (Sb)			---	--	6.0 U	---	6 U	---	---	---	---	---	---	6.0 U	6.0 U	---	---	6.0 U	---	---
Arsenic (As)	340	150	---	--	10 U	---	7 J	---	---	---	---	---	---	10 U	10 U	---	---	10 U	---	---
Barium (Ba)			---	--	17	---	27	---	---	---	---	---	---	20	18	---	---	18	---	---
Calcium (Ca)			---	28,000	23,000	---	33,000	---	29,000	---	---	---	28,000	30,000	23,000	---	29,000	23,000	---	28,000
Chromium (Cr)	570	74	7.7	13	13	20	5.2	8.0	13	12	7.5	8.1	12	16	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cobalt (Co)			---	--	4.0 U	---	4 U	---	---	---	---	---	---	4.0 U	4.0 U	---	---	4.0 U	---	---
Copper (Cu)	13	9	10 U	10 U	3.0 J	5.6 J	3.3 J	2.6 J	5.1 J	7.2 J	10 U	10 U	4.9 J	4.8 J	10 U	10 U	10 U	10 U	10 U	10 U
Iron (Fe)		1,000	---	--	50 U	---	160	---	---	---	---	---	---	50 U	24 J	---	---	50 U	---	---
Lead (Pb)	65	2.5	---	--	5.0 U	---	5.0 U	---	---	---	---	---	---	**4.0 J**	5.0 U	---	---	5.0 U	---	---
Magnesium (Mg)			---	2,800	2,000	---	2,500	---	2,500	---	---	---	2,700	2,500	1,900	---	2,600	2,000	---	2,600
Manganese (Mn)			---	--	12	---	1,000	---	---	---	---	---	---	3.0 U	19	---	---	20	---	---
Nickel (Ni)	470	52	---	--	10 U	---	1.6 J	---	---	---	---	---	---	1.3 J	10 U	---	---	10 U	---	---
Potassium (K)			---	3,700	3,100	---	5,300	---	3,800	---	---	---	3,800	3,500	3,100	---	3,800	3100	---	3,700
Sodium (Na)			---	57,000	34,000	---	45,000	---	49,000	---	---	---	57,000	52,000	30,000	---	42,000	30,000	---	41,000
Zinc (Zn)	120	120	---	--	50 U	---	3.3 J	---	---	---	---	---	---	50 U	3.6 J	---	---	2.4 J	---	---
Inorganics (mg/L)																				
Chloride			---	--	64	---	61	---	94	---	---	---	---	---	---	---	---	---	---	---
Sulfate			---	--	14	---	19	---	14	---	---	---	---	---	11	---	---	11	---	---

AWQC - Ambient Water Quality Criteria
* Value for Trivalent Chromium used as a surrogate for Chromium
--- denotes not analyzed for; U = not detected above the indicated detection limit;
B = compound was detected in the blank; J = value was estimated
Shaded and bolded values exceed AWQC values.

Prepared by / Date: HTS 07/28/15
Checked by / Date: CTM 07/29/15

Table 6
Summary of Compounds Detected in Surface Water (January 2015 - December 2016)
Conductorlab Site
Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-2 Mar-15	CSW-2 DUP Mar-15	CSW-2 Dec-15	CSW-2 Apr-16	CSW-2 Dec-16	CSW-3 Mar-15	CSW-3 Jun-15	CSW-3 Oct-15	CSW-3 Dec-15	CSW-3 DUP Dec-15
Chlorinated Ethenes (ug/L)												
Tetrachloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3	1.0 U	1.0 U
Trichloroethene (TCE)			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.61 J	7.9	58	4.9	4.9
cis-1,2-Dichloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.90 J	2.2	1.0 U	1.0 U
Metals, Total (ug/L)												
Calcium (Ca)			---	---	---	---	---	---	---	---	---	---
Hexavalent Chromium	16	11	5.0 U	5.0 U	5.0 U	5 U	5 U	**12**	**190**	**480**	**83**	**93**
Magnesium (Mg)			---	---	---	2,000	2,800	---	---	---	---	---
Potassium (K)			---	---	---	3,200	4,300	---	---	---	---	---
Sodium (Na)			---	---	---	32,000	31,000	---	---	---	---	---
Metals, Dissolved (ug/L)												
Aluminum (Al)	750	87	---	---	---	200 U	200 U	---	200 U	---	---	---
Antimony (Sb)			---	---	---	6.0 U	6.0 U	---	6.0 U	---	---	---
Arsenic (As)	340	150	---	---	---	10 U	10 U	---	10 U	---	---	---
Barium (Ba)			---	---	---	20	24	---	21	---	---	---
Calcium (Ca)			---	---	29,000	24,000	33,000	25,000	26,000	29,000	30,000	29,000
Chromium (Cr)	570	74	5.0 U	5.0 U	1.2 J	5.0 U	5.0 U	11	**190**	**540**	**99**	**98**
Cobalt (Co)			---	---	---	4.0 U	4.0 U	---	4.0 U	---	---	---
Copper (Cu)	13	9	10 U	10 U	10 U	1.7 J	10 U	10 U	**9.6 J**	**17**	5.8 J	5.5 J
Iron (Fe)		1,000	---	---	---	40 J	50 U	---	50 U	---	---	---
Lead (Pb)	65	2.5	---	---	---	5.0 U	5.0 U	---	5.0 U	---	---	---
Magnesium (Mg)			---	---	2,500	2,000	2,800	2,600	2,200	2,200	2,500	2,500
Manganese (Mn)			---	---	---	3.2	3.5	---	9.5	---	---	---
Nickel (Ni)	470	52	---	---	---	10 U	10 U	---	2.2 J	---	---	---
Potassium (K)			---	---	4,500	3,200	4,300	3,700	3,700	4,200	4,300	4,300
Sodium (Na)			---	---	26,000	32,000	31,000	40,000	26,000	28,000	26,000	25,000
Zinc (Zn)	120	120	---	---	---	3.8 J	50 U	---	50 U	---	---	---
Inorganics (mg/L)												
Chloride			---	---	---	---	---	---	---	---	---	---
Sulfate			---	---	---	---	---	---	---	---	---	---

Notes:

AWQC - Ambient Water Quality Criteria

* Value for Trivalent Chromium used as a surrogate for Chromium

--- denotes not analyzed for; U = not detected above the indicated detection limit;

B = compound was detected in the blank; J = value was estimated

10 - Indicates value exceeds current AWQC Standards

Table 6
Summary of Compounds Detected in Surface Water (January 2015 - December 2016)
Conductorlab Site
Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-3 Apr-16	CSW-3 DUP Apr-16	CSW-3 Jun-16	CSW-3 Dec-16	CSW-3 DUP Dec-16	CSW-3A Mar-15	CSW-3A Jun-15	CSW-3A Oct-15	CSW-3A Dec-15	CSW-3A Apr-16	CSW-3A Jun-16	CSW-3A Dec-16
Chlorinated Ethenes (ug/L)														
Tetrachloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)			0.61 J	0.57 J	6.8	2.3	2.3	0.79 J	4.7	16	4.9	0.76 J	4.5	2.4
cis-1,2-Dichloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.82 J	1.0 U	1.0 U	1.0 U	1.0 U
Metals, Total (ug/L)														
Calcium (Ca)			---	---	---	---	---	---	---	---	---	---	---	---
Hexavalent Chromium	16	11	9.5 J	**15**	**170**	**50**	**47**	**14**	**180**	**490**	**97**	**14**	**200**	**45**
Magnesium (Mg)			2,200	2,600	2,300	2,800	2,800	---	---	---	---	2,100	2,300	2,900
Potassium (K)			3,400	3,700	3,800	4,200	4,200	---	---	---	---	3,300	3,800	4,300
Sodium (Na)			35,000 J	67,000 J	34,000	30,000	30,000	---	---	---	---	37,000	39,000	37,000
Metals, Dissolved (ug/L)														
Aluminum (Al)	750	87	200 U	200 U	200 U	200 U	200 U	---	200 U	---	---	200 U	200 U	200 U
Antimony (Sb)			6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	---	6.0 U	---	---	6.0 U	6.0 U	6.0 U
Arsenic (As)	340	150	10 U	10 U	10 U	10 U	10 U	---	10 U	---	---	10 U	10 U	10 U
Barium (Ba)			21	24	24	24	24	---	22	---	---	21	24	25
Calcium (Ca)			26,000	29,000	28,000	33,000	33,000	27,000	28,000	31,000	30,000	26,000	28,000	34,000
Chromium (Cr)	570	74	12 J	31 J	**190**	46	46	14	**190**	**490**	**99**	13	**180**	49
Cobalt (Co)			4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	---	4.0 U	---	---	4.0 U	4.0 U	4.0 U
Copper (Cu)	13	9	3.3 J	7.0 J	**12**	3.3 J	3.5 J	1.9 J	6.2 J	**11**	4.7 J	3.3 J	8.3 J	4.7 J
Iron (Fe)		1,000	47 J	35 J	50 U	50 U	50 U	---	50 U	---	---	34 J	50 U	50 U
Lead (Pb)	65	2.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	---	**3.0 J**	---	---	5.0 U	5.0 U	5.0 U
Magnesium (Mg)			2,200	2,600	2,300	2,800	2,800	2,800	2,400	2,300	2,500	2,100	2,300	2,900
Manganese (Mn)			2.7 J	5.8	34	4.3	5.5	---	6.6	---	---	3.5	16	13
Nickel (Ni)	470	52	10 U	10 U	2.3 J	10 U	10 U	---	2.0 J	---	---	10 U	2.4 J	10 U
Potassium (K)			3,400	3,700	3,800	4,200	4,200	3,800	4,100	4,500	4,200	3,300	3,800	4,300
Sodium (Na)			35,000 J	67,000 J	34,000	30,000	30,000	57,000	40,000	31,000	27,000	37,000	39,000	37,000
Zinc (Zn)	120	120	1.8 J	3.8 J	3.0 J	50 U	50 U	---	50 U	---	---	2.9 J	6.5 J	50 U
Inorganics (mg/L)														
Chloride			---	---	---	---	---	---	---	---	---	---	---	---
Sulfate			---	---	---	---	---	---	---	---	---	---	---	---

Notes:

AWQC - Ambient Water Quality Criteria

* Value for Trivalent Chromium used as a surrogate for Chromium

--- denotes not analyzed for; U = not detected above the indicated detection limit;

B = compound was detected in the blank; J = value was estimated

10 - Indicates value exceeds current AWQC Standards

Table 6
Summary of Compounds Detected in Surface Water (January 2015 - December 2016)
Conductorlab Site
Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-4 Mar-15	CSW-4 Dec-15	CSW-4 Apr-16	CSW-4 Dec-16	CSW-5 Mar-15	CSW-5 Jun-15	CSW-5 Oct-15	CSW-5 Dec-15	CSW-5 Apr-16	CSW-5 Jun-16	CSW-5 Dec-16
Chlorinated Ethenes (ug/L)													
Tetrachloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene (TCE)			0.68 J	1.7	0.64 J	1.4	1.0 U	0.94 J	1.3	1.0 U	1.0 U	1.2	1.0 U
cis-1,2-Dichloroethene			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Metals, Total (ug/L)													
Calcium (Ca)			--	---	---	---	---	---	---	---	---	---	---
Hexavalent Chromium	16	11	**15**	**79**	**14**	**48**	**12**	11	5.0 U	**26**	8.6 J	**24 J**	**30**
Magnesium (Mg)			--	---	2,000	2,900	---	---	---	---	2,200	2,400	2,600
Potassium (K)			--	---	3,200	4,200	---	---	---	---	3,300	3,200	3,900
Sodium (Na)			--	---	36,000	41,000	---	---	---	---	40,000	44,000	53,000
Metals, Dissolved (ug/L)													
Aluminum (Al)	750	87	--	---	200 U	200 U	---	200 U	---	---	200 U	200 U	200 U
Antimony (Sb)			--	---	6.0 U	6.0 U	---	6.0 U	---	---	6.0 U	6.0 U	6.0 U
Arsenic (As)	340	150	--	---	10 U	10 U	---	10 U	---	---	10 U	10 U	10 U
Barium (Ba)			--	---	20	24	---	20	---	---	20	21	20
Calcium (Ca)			28,000	28,000	24,000	33,000	28,000	30,000	33,000	25,000	25,000	30,000	29,000
Chromium (Cr)	570	74	13	**78**	12	47	12	16	11	25	12	12	25
Cobalt (Co)			--	---	4.0 U	4.0 U	---	4.0 U	---	---	4.0 U	4.0 U	4.0 U
Copper (Cu)	13	9	10 U	4.7 J	3.0 J	3.7 J	4.9 J	4.8 J	3.7 J	**12**	9.0 J	7.8 J	8.5 J
Iron (Fe)		1,000	--	---	32 J	50 U	---	50 U	---	---	24 J	50 U	50 U
Lead (Pb)	65	2.5	--	---	5.0 U	5.0 U	---	**4.0 J**	---	---	5.0 U	5.0 U	5.0 U
Magnesium (Mg)			2,800	2,400	2,000	2,900	2,700	2,500	2,400	2,200	2,200	2,400	2,600
Manganese (Mn)			--	---	2.2 J	1.7 J	---	3.0 U	---	---	2.7 J	14	3.6
Nickel (Ni)	470	52	--	---	10 U	10 U	---	1.3 J	---	---	10 U	1.3 J	10 U
Potassium (K)			3,700	4,200	3,200	4,200	3,800	3,500	3,600	3,400	3,300	3,200	3,900
Sodium (Na)			57,000	25,000	36,000	41,000	57,000	52,000	58,000	31,000	40,000	44,000	53,000
Zinc (Zn)	120	120	--	---	2.4 J	50 U	---	50 U	---	---	7.7 J	4.8 J	50 U
Inorganics (mg/L)													
Chloride			--	---	---	---	---	---	---	---	---	---	---
Sulfate			--	---	---	---	---	---	---	---	---	---	---

Notes:

AWQC - Ambient Water Quality Criteria

* Value for Trivalent Chromium used as a surrogate for Chromium

--- denotes not analyzed for; U = not detected above the indicated detection limit;

B = compound was detected in the blank; J = value was estimated

10 - Indicates value exceeds current AWQC Standards

Prepared by / Date: HTS 01/12/17

Checked by / Date: CTM 01/18/17

Honeywell

DRAFT

APPENDIX A

BWSC FORM 104

(INCLUDED ONLY IN REPORT COPIES GENERATED AFTER EDEP SUBMITTAL)

Honeywell

DRAFT

APPENDIX B
PUBLIC NOTICES

WSP USA, Inc.
100 Apollo Drive, Suite 302
Chelmsford, Massachusetts 01824

March 2023

Mark Haddad
Town Manager
Town Hall
173 Main Street
Groton, MA 01450

Re: Permanent Solution with Conditions Statement and Activity and Use Limitation Implementation
Conductorlab Site
430 Main Street
Groton, Massachusetts
MassDEP Release Tracking No. RTN 2-0000053

Dear Mr. Haddad:

Pursuant to Public Involvement Requirements (310 CMR 40.1403) of the Massachusetts Contingency Plan (MCP), WSP USA, Inc. (WSP), formerly Wood Environment and Infrastructure, Inc., is submitting this notification on behalf of our client, Grimes Aerospace Company f/k/a FL Aerospace Corporation, c/o Honeywell International Inc. A Permanent Solution with Conditions (PSWC) Statement has been submitted to the MassDEP in response to release to soil, groundwater, and surface water at the ConductorLab Property located 430 Main Street in Groton, Massachusetts (the Site). WSP has provided technical assistance to the property owner with respect to the performance of response actions at the Site from 2015 through 2022

In summary, the report states:

- The Site is associated with MassDEP Release Tracking Numbers (RTNs). RTN 2-0000053. The Site achieved a Class C-1 Response Action Outcome (RAO) in February 1996. Since the submittal of Class C-1 RAO Statement, response actions were completed at the Site to meet the requirements of a Permanent Solution.

- Since the submission of the Class C-1 RAO, operation and maintenance (O&M) activities have been conducted at the Site in accordance with the OM&M Plan which included groundwater capture and treatment (GWTS). The GWTS operated for more than 15 years.

- Alternative technologies were pursued that could more effectively mitigate the surface water and groundwater impacts and advance the Site to closure. Following the submission of a Phase III Remedial Action Plan in 2009, *in-situ* chemical oxidation (ISCO) and *in-situ* chemical reduction (ISCR) were implemented to address risk-based Site closure requirements.

- Following monitoring /assessment activities, WSP has completed a Method 3 Risk Characterization to evaluate the potential risk of harm to human health, public welfare, safety, and the environment associated with the identified release. The Risk Characterization indicated that based on the existing analytical data, the Site poses No Significant Risk of harm to human health, public welfare, safety, and the environment.

- Although the Method 3 Risk Characterization indicates there is No Significant Risk at the Site, an Activity and Use Limitation (AUL) has been placed on a portion of the property as a conservative measure to address uncertainties associated with the site data. Implementation of an AUL will address potential future exposure to residual contaminants of concern in soil and groundwater at the Site by dermal contact, ingestion, dust inhalation exposure, or vapor exposure. A copy of the recorded Notice of Activity and Use Limitation is attached.

Based upon our evaluation of the Response Actions conducted, the analytical data generated to date, and the data quality objectives for the project, it is WSP's opinion that additional Response Actions are not warranted to support a Permanent Solution at the Site. If you have any questions or comments regarding these MCP Response Action activities or would like to request a copy of the PSWC Statement, please do not hesitate to contact our office.

Sincerely,
WSP USA, Inc.

Mykel Mendes	Kim Henry, LSP
Senior Consultant- Environmental Engineer	Vice President

WSP USA, Inc.
100 Apollo Drive, Suite 302
Chelmsford, Massachusetts 01824
USA

March 2023

Michelle Collette
Chairperson
Board of Health
Town of Groton
Public Health Department
173 Main Street
Groton, MA 01450:

Re: Permanent Solution with Conditions Statement and Activity and Use Limitation Implementation
Conductorlab Site
430 Main Street
Groton, Massachusetts
MassDEP Release Tracking No. RTN 2-0000053

Dear Ms. Collette:

Pursuant to Public Involvement Requirements (310 CMR 40.1403) of the Massachusetts Contingency Plan (MCP), WSP USA, Inc. (WSP), formerly Wood Environment and Infrastructure, Inc., is submitting this notification on behalf of our client, Grimes Aerospace Company f/k/a FL Aerospace Corporation, c/o Honeywell International Inc. A Permanent Solution with Conditions (PSWC) Statement has been submitted to the MassDEP in response to release to soil, groundwater, and surface water at the ConductorLab Property located 430 Main Street in Groton, Massachusetts (the Site). WSP has provided technical assistance to the property owner with respect to the performance of response actions at the Site from 2015 through 2022

In summary, the report states:

- The Site is associated with MassDEP Release Tracking Numbers (RTNs). RTN 2-0000053. The Site achieved a Class C-1 Response Action Outcome (RAO) in February 1996. Since the submittal of Class C-1 RAO Statement, response actions were completed at the Site to meet the requirements of a Permanent Solution.

- Since the submission of the Class C-1 RAO, operation and maintenance (O&M) activities have been conducted at the Site in accordance with the OM&M Plan which included groundwater capture and treatment (GWTS). The GWTS operated for more than 15 years.

- Alternative technologies were pursued that could more effectively mitigate the surface water and groundwater impacts and advance the Site to closure. Following the submission of a Phase III Remedial Action Plan in 2009, *in-situ* chemical oxidation (ISCO) and *in-situ* chemical reduction (ISCR) were implemented to address risk-based Site closure requirements.

- Following monitoring /assessment activities, WSP has completed a Method 3 Risk Characterization to evaluate the potential risk of harm to human health, public welfare, safety, and the environment associated with the identified release. The Risk Characterization indicated that based on the existing analytical data, the Site poses No Significant Risk of harm to human health, public welfare, safety, and the environment.

- Although the Method 3 Risk Characterization indicates there is No Significant Risk at the Site, an Activity and Use Limitation (AUL) has been placed on a portion of the property as a conservative measure to address uncertainties associated with the site data. Implementation of an AUL will address potential future exposure to residual contaminants of concern in soil and groundwater at the Site by dermal contact, ingestion, dust inhalation exposure, or vapor exposure. A copy of the recorded Notice of Activity and Use Limitation is attached.

Based upon our evaluation of the Response Actions conducted, the analytical data generated to date, and the data quality objectives for the project, it is WSP's opinion that additional Response Actions are not warranted to support a Permanent Solution at the Site. If you have any questions or comments regarding these MCP Response Action activities or would like to request a copy of the PSWC Statement, please do not hesitate to contact our office.

Sincerely,
WSP USA, Inc.

Mykel Mendes	Kim Henry, LSP
Senior Consultant- Environmental Engineer	Vice President

WSP USA, Inc.
100 Apollo Drive, Suite 302
Chelmsford, Massachusetts 01824
USA

March 2023

Bruce Easom
Chair, Zoning Board of Appeals
Town of Groton
173 Main Street
Groton, MA 01450

Re: Permanent Solution with Conditions Statement and Activity and Use Limitation Implementation
Conductorlab Site
430 Main Street
Groton, Massachusetts
MassDEP Release Tracking No. RTN 2-0000053

Dear Mr. Easom:

Pursuant to Public Involvement Requirements (310 CMR 40.1403) of the Massachusetts Contingency Plan (MCP), WSP USA, Inc. (WSP), formerly Wood Environment and Infrastructure, Inc,. is submitting this notification on behalf of our client, Grimes Aerospace Company f/k/a FL Aerospace Corporation, c/o Honeywell International Inc. A Permanent Solution with Conditions (PSWC) Statement has been submitted to the MassDEP in response to release to soil, groundwater, and surface water at the ConductorLab Property located 430 Main Street in Clinton, Massachusetts (the Site). WSP has provided technical assistance to the property owner with respect to the performance of response actions at the Site from 2015 through 2022

In summary, the report states:

- The Site is associated with MassDEP Release Tracking Numbers (RTNs). RTN 2-0000053. The Site achieved a Class C-1 Response Action Outcome (RAO) in February 1996. Since the submittal of Class C-1 RAO Statement, response actions were completed at the Site to meet the requirements of a Permanent Solution.

- Since the submission of the Class C-1 RAO, operation and maintenance (O&M) activities have been conducted at the Site in accordance with the OM&M Plan which included groundwater capture and treatment (GWTS). The GWTS operated for more than 15 years.

- Alternative technologies were pursued that could more effectively mitigate the surface water and groundwater impacts and advance the Site to closure. Following the submission of a Phase III Remedial Action Plan in 2009, *in-situ* chemical oxidation (ISCO) and *in-situ* chemical reduction (ISCR) were implemented to address risk-based Site closure requirements.

- Following monitoring /assessment activities, WSP has completed a Method 3 Risk Characterization to evaluate the potential risk of harm to human health, public welfare, safety, and the environment associated with the identified release. The Risk Characterization indicated that based on the existing analytical data, the Site poses No Significant Risk of harm to human health, public welfare, safety, and the environment.

- Although the Method 3 Risk Characterization indicates there is No Significant Risk at the Site, an Activity and Use Limitation (AUL) has been placed on a portion of the property as a conservative measure to address uncertainties associated with site data. Implementation of an AUL will address the current and potential future exposure to residual contaminants of concern in soil and groundwater at the Site by dermal contact, ingestion, dust inhalation exposure, or vapor exposure. A copy of the recorded Notice of Activity and Use Limitation is attached.

Based upon our evaluation of the Response Actions conducted, the analytical data generated to date, and the data quality objectives for the project, it is WSP's opinion that additional Response Actions are not warranted to support a Permanent Solution at the Site. If you have any questions or comments regarding these MCP Response Action activities or would like to request a copy of the PSWC Statement, please do not hesitate to contact our office.

Sincerely,
WSP USA, Inc.

Mykel Mendes	Kim Henry, LSP
Senior Consultant Environmental Engineer	Vice President

Attachments

5911981.1

WSP USA, Inc.
100 Apollo Drive, Suite 302
Chelmsford, Massachusetts 01824
USA

March 2023

Bob Garside
Building Commissioner
Building Department
Town of Groton
173 Main Street
Groton, MA 01450:

Re: Permanent Solution with Conditions Statement and Activity and Use Limitation Implementation
Conductorlab Site
430 Main Street
Groton, Massachusetts
MassDEP Release Tracking No. RTN 2-0000053

Dear Mr. Garside,

Pursuant to Public Involvement Requirements (310 CMR 40.1403) of the Massachusetts Contingency Plan (MCP), WSP USA, Inc. (WSP), formerly Wood Environment and Infrastructure, Inc., is submitting this notification on behalf of our client, Grimes Aerospace Company f/k/a FL Aerospace Corporation, c/o Honeywell International Inc. A Permanent Solution with Conditions (PSWC) Statement has been submitted to the MassDEP in response to release to soil, groundwater, and surface water at the ConductorLab Property located 430 Main Street in Groton, Massachusetts (the Site). WSP has provided technical assistance to the property owner with respect to the performance of response actions at the Site from 2015 through 2022

In summary, the report states:

- The Site is associated with MassDEP Release Tracking Numbers (RTNs). RTN 2-0000053. The Site achieved a Class C-1 Response Action Outcome (RAO) in February 1996. Since the submittal of Class C-1 RAO Statement, response actions were completed at the Site to meet the requirements of a Permanent Solution.

- Since the submission of the Class C-1 RAO, operation and maintenance (O&M) activities have been conducted at the Site in accordance with the OM&M Plan which included groundwater capture and treatment (GWTS). The GWTS operated for more than 15 years.

- Alternative technologies were pursued that could more effectively mitigate the surface water and groundwater impacts and advance the Site to closure. Following the submission of a Phase III Remedial Action Plan in 2009, *in-situ* chemical oxidation (ISCO) and *in-situ* chemical reduction (ISCR) were implemented to address risk-based Site closure requirements.

- Following monitoring /assessment activities, WSP has completed a Method 3 Risk Characterization to evaluate the potential risk of harm to human health, public welfare, safety, and the environment associated with the identified release. The Risk Characterization indicated that based on the existing analytical data, the Site poses No Significant Risk of harm to human health, public welfare, safety, and the environment.

- Although the Method 3 Risk Characterization indicates there is No Significant Risk at the Site, an Activity and Use Limitation (AUL) has been placed on a portion of the property as a conservative measure to address uncertainties associated with the site data. Implementation of an AUL will address potential future exposure to residual contaminants of concern in soil and groundwater at the Site by dermal contact, ingestion, dust inhalation exposure, or vapor exposure. A copy of the recorded Notice of Activity and Use Limitation is attached.

Based upon our evaluation of the Response Actions conducted, the analytical data generated to date, and the data quality objectives for the project, it is WSP's opinion that additional Response Actions are not warranted to support a Permanent Solution at the Site. If you have any questions or comments regarding these MCP Response Action activities or would like to request a copy of the PSWC Statement, please do not hesitate to contact our office.

Sincerely,
WSP USA, Inc.

Mykel Mendes	Kim Henry, LSP
Senior Consultant- Environmental Engineer	Vice President

Honeywell

DRAFT

APPENDIX C
METHOD 3 RISK CHARACTERIZATION

METHOD 3 RISK CHARACTERIZATION IN SUPPORT OF A PERMANENT SOLUTION STATEMENT WITH CONDITIONS

CONDUCTORLAB SITE
430 MAIN STREET
GROTON, MASSACHUSETTS
RTN 2-0000053

Prepared For:

Honeywell
THE POWER OF CONNECTED

Honeywell International Inc.
115 Tabor Road
Morris Plains, NJ 07950

Prepared By:

WSP USA Environment & Infrastructure Inc.
100 Apollo Drive, Suite 302
Chelmsford, Massachusetts 01824
Phone: (978) 692-9090
Fax: (833) 774-2707

Project No. 3651220229

MARCH 2023

METHOD 3 RISK CHARACTERIZATION IN SUPPORT OF A PERMANENT SOLUTION STATEMENT WITH CONDITIONS

CONDUCTORLAB SITE
430 MAIN STREET
GROTON, MASSACHUSETTS
RTN 2-0000053

Prepared For:

Honeywell
THE POWER OF CONNECTED

Honeywell International Inc.
115 Tabor Road
Morris Plains, NJ 07950

Prepared By:

WSP USA Environment & Infrastructure Inc.
100 Apollo Drive, Suite 302
Chelmsford, Massachusetts 01824
Phone: (978) 692-9090
Fax: (833) 774-2707

MARCH 2023

Reviewed and approved by:

Senior Risk Assessor:_____ Date:
Jane A. Parkin Kullmann

Principal Environmental Scientist: _____ Date:
Michael J. Murphy

TABLE OF CONTENTS

1.0 INTRODUCTION 1

1.1 RISK ASSESSMENT APPROACH 1
1.2 DISPOSAL SITE SETTING 2
1.3 SITE HISTORY 3
1.4 DISPOSAL SITE INVESTIGATIONS AND RESPONSE ACTIONS 4
1.4.1 GROUNDWATER 5
1.4.2 SOIL 7
1.5 SUMMARY OF METHOD 3 RISK CHARACTERIZATION 7

2.0 HUMAN HEALTH 13

2.1 APPROACH 13
2.2 HAZARD IDENTIFICATION 14
2.2.1 SOIL 14
2.2.2 GROUNDWATER 16
2.2.3 SURFACE WATER 17
2.2.4 SEDIMENT 18
2.2.5 SELECTION OF CONTAMINANTS OF CONCERN (COC) 19
2.2.5.1 SOIL 19
2.2.5.2 GROUNDWATER 21
2.2.5.3 SURFACE WATER AND SEDIMENT 21
2.2.5.4 SUMMARY OF COC 22
2.3 EXPOSURE ASSESSMENT 22
2.3.1 CURRENT AND POTENTIAL FUTURE SITE USES 22
2.3.2 SOIL AND GROUNDWATER CATEGORIZATION 24
2.3.3 SITE RECEPTORS 27
2.3.4 EXPOSURE PATHWAYS 28
2.3.4.1 COMPLETE EXPOSURE PATHWAYS 28
2.3.4.2 INCOMPLETE EXPOSURE PATHWAYS AND RESTRICTIONS ON SITE USES AND ACTIVITIES 30
2.3.5 EXPOSURE POINTS 32
2.3.5.1 SOIL 32
2.3.5.2 GROUNDWATER AND EXCAVATION AIR 34
2.3.5.3 SURFACE WATER AND SEDIMENT 34
2.3.6 EXPOSURE POINT CONCENTRATIONS (EPCS) 35
2.3.6.1 SOIL 35
2.3.6.2 GROUNDWATER 36
2.3.6.3 EXCAVATION AIR 36
2.3.6.4 SURFACE WATER AND SEDIMENT 37
2.3.7 QUANTIFICATION OF POTENTIAL EXPOSURE 37
2.3.7.1 SOIL AND SEDIMENT 38
2.3.7.2 GROUNDWATER AND SURFACE WATER 40
2.3.7.3 INHALATION OF PARTICULATES 41
2.3.7.4 EXCAVATION AIR 43
2.4 DOSE-RESPONSE ASSESSMENT 44
2.4.1 NONCARCINOGENIC DOSE-RESPONSE 44
2.4.2 CARCINOGENIC DOSE-RESPONSE 45
2.4.3 SOURCE OF DOSE-RESPONSE INFORMATION 47

2.4.4 RELATIVE ABSORPTION FACTORS (RAFS) 48
2.5 RISK CHARACTERIZATION 49
2.5.1 CALCULATION OF NONCANCER RISK 49
2.5.2 CALCULATION OF CANCER RISK 50
2.5.3 SUMMARY OF HUMAN HEALTH RISK CHARACTERIZATION RESULTS 51
2.5.4 ACUTE RISK CHARACTERIZATION 52
2.5.5 APPLICABLE OR SUITABLY ANALOGOUS PUBLIC HEALTH STANDARDS 54
2.6 UNCERTAINTY ANALYSIS 54
2.6.1 HAZARD IDENTIFICATION 55
2.6.2 EXPOSURE ASSESSMENT 56
2.6.3 DOSE-RESPONSE ASSESSMENT 57
2.6.4 RISK CHARACTERIZATION 57
2.7 HUMAN HEALTH RISK CHARACTERIZATION CONCLUSIONS 58

3.0 PUBLIC WELFARE AND ENVIRONMENT 61

3.1 PUBLIC WELFARE 61
3.2 ENVIRONMENT 62

4.0 SAFETY 64

5.0 CONCLUSIONS 65

6.0 REFERENCES 68

TABLES

Table 1 Summary of Potential Current and Future Media and Exposure Pathways for Human Health Receptors
Table 2 Summary Statistics: Surface Soil (0-3 ft)
Table 3 Summary Statistics: Subsurface Soil (3-15 ft)
Table 4 Summary Statistics: Combined Soil (0-15 ft)
Table 5 Summary Statistics: Soil (all depths)
Table 6 Comparison of Soil Data to MassDEP Background Levels
Table 7 Summary Statistics: Groundwater
Table 8 Summary Statistics: Groundwater, on-property <15 ft
Table 9 Summary Statistics: Groundwater, off-property <15 ft
Table 10 Summary Statistics: Surface Water
Table 11 Summary Statistics: Sediment
Table 12 Summary of Oil or Hazardous Materials of Potential Concern by Media and Area
Table 13 Exposure Assumption Values Used for Daily Intake Calculation: Soil
Table 14 Exposure Assumption Values Used for Daily Intake Calculation: Groundwater and Excavation Air
Table 15 Exposure Assumption Values Used for Daily Intake Calculation: Surface Water and Sediment
Table 16 Hot Spot Evaluation: Soil
Table 17 Exposure Point Concentrations: Surface Soil (0-3 ft)

Table 18 Exposure Point Concentrations: Subsurface Soil (3-15 ft)
Table 19 Exposure Point Concentrations: Combined Soil (0-15 ft)
Table 20 Exposure Point Concentrations: Groundwater and Excavation Air
Table 21 Exposure Point Concentrations: Surface Water and Sediment
Table 22 Dose Response Data for Carcinogens
Table 23 Dose Response Data for Non-Cancer
Table 24 Relative Absorption Factors
Table 25 Summary of Cancer and Non-Cancer Risks - All Media
Table 26 Comparison of Soil and Groundwater Data to Upper Concentration Limits (UCLs)

FIGURES

Figure 1 Site Plan and Site Features
Figure 2 Conceptual Site Model
Figure 3 Surface Soil Sampling Locations
Figure 4 Subsurface Soil Sampling Locations
Figure 5 On Property Monitoring Wells
Figure 6 Off Property Monitoring Wells
Figure 7 Surface Water and Sediment Sampling Locations
Figure 8 Soil Hexavalent Chromium Hot Spot Evaluation

ATTACHMENTS

Attachment A Analytical Data
Table A-1 Soil Data
Table A-2 Groundwater VOC Data
Table A-3 Groundwater Metals Data
Table A-4 Groundwater General Chemistry Data
Table A-5 Groundwater Bedrock Data
Table A-6 Surface Water VOC Data
Table A-7 Surface Water Metals Data
Table A-8 Surface Water General Chemistry Data
Table A-9 Sediment VOC Data
Table A-10 Sediment SVOC Data
Table A-11 Sediment Pesticide Data
Table A-12 Sediment Metals Data
Table A-13 Sediment General Chemistry Data

Attachment B Arsenic Background Evaluation
Attachment B-1 Arsenic Background Evaluation
Attachment B-2 Arsenic BTV Calculation
Attachment B-3 Arsenic Geochemical Evaluation

Attachment C Trench Model
Table C-1 On-Property Estimated Excavation Air Concentrations
Table C-2 Off-Property Estimated Excavation Air Concentrations

Attachment D Risk Calculations
Table D-1 0-3 Soil - Trespasser
Table D-2 3-15 Soil - Trespasser
Table D-3 Surface Water - Trespasser
Table D-4 Sediment - Trespasser
Table D-5 Surface Water - Resident 1-8
Table D-6 Surface Water - Resident 8-15
Table D-7 Surface Water - Resident 16-31
Table D-8 Sediment - Resident
Table D-9 0-3 Soil - Worker
Table D-10 0-3 Soil - Worker Particulates
Table D-11 3-15 Soil - Worker
Table D-12 3-15 Soil - Worker Particulates
Table D-13 0-15 Soil - Construction Worker
Table D-14 On-Property Groundwater - Construction Worker
Table D-15 On-Property Excavation Air - Construction Worker
Table D-16 Off-Property Groundwater - Construction Worker
Table D-17 Off-Property Excavation Air - Construction Worker

1.0 INTRODUCTION

This appendix presents a Method 3 risk characterization for the Conductorlab Site ("Disposal Site" or "Site") at 430 Main Street in Groton, Massachusetts associated with RTN 2-0000053. This risk characterization supports the Permanent Solution Statement (PSS) with Conditions report to which it is appended (WSP USA, 2023). This risk characterization was performed by WSP USA Environment & Infrastructure, Inc. (WSP USA) and is not intended to be a stand-alone document. It summarizes, where applicable, information on site characterization and features; however, additional detailed information is contained in the PSS report. In addition, the results of the risk characterization are incorporated into the PSS conclusions.

1.1 RISK ASSESSMENT APPROACH

This risk characterization is conducted in accordance with 310 CMR 40.0900 of the Massachusetts Contingency Plan (MCP), the Massachusetts Department of Environmental Protection (MassDEP) "Guidance for Disposal Site Risk Characterization - In Support of the MCP" (MassDEP, 1995), "Guidance for Disposal Site Risk Characterization Chapter 9: Method 3 Environmental Risk Characterization" (MassDEP, 1996), and current risk assessment practice in Massachusetts.

This risk characterization report addresses risk of harm to human health (Section 2.0), public welfare (Section 3.1), the environment (Section 3.2) and safety (Section 4.0). The conclusions of the risk characterization are presented in Section 5.0. **Attachments A** through **D** provide supporting documentation for the human health risk characterization. An Environmental Risk Characterization (ERC) is provided in **Appendix D** of the PSS.

1.2 DISPOSAL SITE SETTING

The Conductorlab property is located at 430 Main Street in Groton, Massachusetts, approximately 0.75 miles north of the center of Groton, and includes approximately 3.2 acres of land. The Disposal Site includes a portion of the Conductorlab property and off-property areas where contamination has been identified in groundwater, surface water, and sediment. Site investigation activities and monitoring well/sampling locations are referenced as "on-property" and "off-property" to distinguish between the two areas. The extents of the on-property and off-property areas of the Disposal Site and other property features are shown on **Figure 1**. Off-property portions of the Site include a small unnamed, intermittent stream ("Unnamed Brook"), an area west of Main Street (primarily comprised of wooded undeveloped properties with a few existing residences), wetlands along the path of the Unnamed Brook, and the confluence of the Unnamed Brook and Gratuity Brook.

The Conductorlab Site is located in a mixed-use area. The on-property portion of the Site is vacant and is no longer improved by any building structures since demolition of the groundwater treatment system building in November 2017. The only other physical structures present at the property are the concrete slab from the historical main manufacturing building and a perimeter fence. The Unnamed Brook flows west-southwesterly parallel to the northern property line. From the property it flows through a culvert, under Main Street (Route 119), and 1,500 feet downstream to Gratuity Brook which in turn discharges into the Nashua River approximately 6,000 feet to the northwest of the site. Where the Unnamed Brook abuts the Conductorlab property, only the upstream portion is exposed; the downstream portion flows through a culvert that discharges into an open basin next to Route 119, which in turn discharges into a 36-inch R.C.P. culvert under the road that discharges to the wetland area. Each of these features is shown on **Figure 1**.

1.3 SITE HISTORY

The Conductorlab property was originally owned and operated for the manufacture of printed circuit boards by Charles Thibeau in 1958. Operations began in 1958 in a one-story building located on the western portion of the Property (the "original" building) and were later moved in 1965 to a new building constructed east of the original building (the "main" building). A farmhouse located west of the original building reportedly was used as office and storage space. In 1965, the property and operations were purchased by Conductorlab, Inc. In 1972, the facility and operations were purchased by Cambridge Thermionic. In February 1982, Midland-Ross Corporation acquired Cambridge Thermionic Corporation. In 1983, the Property was bought by Lab Circuits Corporation (Kytron-Circuits Corporation), who operated the facility until ceasing operations in 1985. The property has been inactive since that time. The farmhouse and main building were razed in 1988 and 1989, respectively.

The manufacturing processes used at the property involved photoengraving, etching (including the use of chromic acid and chlorinated solvents), metal plating (including the use of copper, lead, tin, nickel, and gold), assembly, and inspection of the circuit boards. Chemical and process wastes generated during 1958 to 1965 were recycled, discharged to a leach bed west of the original building, and/or discharged to the Unnamed Brook located north of the Property. Two neutralization-settling tanks were installed in 1965 for the treatment of chromic acid and process rinse water prior to discharge to the subsurface chemical leaching beds located north of the main building. A wastewater treatment (WWT) facility constructed along the east side of the main building was operational from 1974 through 1985. The facility treated process rinse waters prior to discharge to the Unnamed Brook under a National Pollution Discharge Elimination System (NPDES) permit. Chemicals used in the manufacturing operations were stored in aboveground storage tanks (ASTs) and 55-gallon drums located outside and adjacent to the buildings. The drum storage was located adjacent to the southeast side of the original building; along the southwest side of the main building; along the northeast corner of the main building; and southeast of the WWT facility.

Fresh and spent solvent was stored in ASTs that were located south of the original building and along the north side of the main building. As discussed in the 1988 Phase II Site Investigation report by HMM Associates, inc., an 800-gallon chromic acid AST located south of the original building ruptured in 1968, releasing several hundred gallons of chromic acid onto the soil and into the basement of the former farmhouse (HMM Associates, Inc., 1988).

1.4 DISPOSAL SITE INVESTIGATIONS AND RESPONSE ACTIONS

Substantial site investigations of soil, groundwater, surface water, and sediment have been conducted within the Disposal Site. In addition, assessment of potential vapor intrusion pathways was conducted as needed in the residential area to the west and hydraulically downgradient of the Conductorlab Property.

Response actions at the Disposal Site have included: groundwater quality monitoring both on- and off-Property; installation of a seven-foot perimeter fence to prevent access to the Conductorlab Property by trespassers; decontamination and demolition of the former manufacturing building (1989); removal of subsurface concrete vaults from the former wastewater treatment system and neutralization area (1992); removal from the Property of approximately 1,274 tons waste materials including source soils impacted by past manufacturing activities and construction debris; installation and operation of a pilot-study groundwater pump and treatment system (1989) that was expanded to a full-scale system in 1993 (and discontinued in 2012); and in-situ remediation that included chemical oxidation, chemical reduction and zero valent iron treatment. The groundwater treatment system building was removed in 2017. A summary of the response actions related to groundwater and soil at the Site is provided in the following sections.

1.4.1 GROUNDWATER

On February 2, 1996, a Class C Response Action Outcome (RAO) (Temporary Solution) was filed for the Site; a Permanent Solution had not yet been achieved due to exceedances of Upper Concentration Limits (UCLs) in groundwater, such that a condition of No Significant Risk to public welfare could not yet be demonstrated. Operation and maintenance activities associated with the Temporary Solution were conducted at the Site in accordance with the Operation, Maintenance and Monitoring Plan, which was updated every six months. A groundwater capture and treatment system operated at the Site for approximately 15 years, providing hydraulic control and removing subsurface contaminants. In addition, Notices Restricting Use of Groundwater were filed on May 12, 1995 at parcels that are located within the Disposal Site and as a precautionary measure at additional parcels that were not within the limits of the Disposal Site in 1995 and have never been within the limits of the Disposal Site as defined in any MCP deliverable. These Notices prohibit the use of groundwater at the properties for personal, domestic, and industrial use, and also required that no private wells be installed and that any existing private wells be destroyed.

On June 18, 2009, MACTEC Engineering and Consulting, Inc. (now Wood) submitted a Phase III Remedial Action Plan (RAP), which described the information, reasoning, and data used to identify, evaluate, and select a remedial action alternative. The outcome of the Phase III RAP resulted in the Phase IV Remedial Implementation Plan (RIP) which selected in-situ chemical oxidation (ISCO) to treat trichloroethylene (TCE) and its daughter breakdown products cis-1,2-dichloroethene (DCE), trans-1,2-DCE, and vinyl chloride in soil and groundwater. ISCO treatments occurred near monitoring well locations CLW-8 and PP-3 and adjacent to surface water sampling locations CSW-3 and CSW-3A.

ISCO treatments for TCE had the potential to convert trivalent chromium to the more mobile hexavalent chromium.

Groundwater and surface water monitoring conducted after ISCO treatments revealed that concentrations of chlorinated solvents in groundwater and in the unnamed stream surface water were effectively addressed but confirmed that chromium had in fact been mobilized and fugitive hexavalent chromium was being transported through groundwater and discharging into the unnamed stream. In 2015, it was determined that in-situ chemical reduction (ISCR) treatment was necessary to convert hexavalent chromium back into less mobile trivalent chromium, thereby improving the quality of groundwater and Unnamed Brook surface water. Together, the objective for ISCO and ISCR treatments was to achieve concentrations of TCE below the MassDEP UCL for groundwater and to reduce concentrations of hexavalent chromium in groundwater to improve the quality of the surface water and demonstrate that surface water conditions were consistent with a condition of No Significant Risk to ecological receptors.

Amec Foster Wheeler (formerly MACTEC and now WSP USA) submitted a Phase IV RIP Amendment to MassDEP dated November 2015, and ISCR remediation was completed in January 2016. To further reduce the concentrations of hexavalent chromium in groundwater (and likely improve surface water conditions), Wood completed additional ISCR (zero valent iron or ZVI) treatment in June 2020. Post remediation groundwater and surface water monitoring activities/results in 2021 indicated that the ZVI treatment was effective at reducing Cr and Cr+6 concentrations in groundwater to below GW-3 standards; and seemed to improve the Cr+6 results in surface water. The ISCR treatment was injected in locations within the southwestern portion of the Site in the direction of the off-Site migration of groundwater flow paths. Groundwater analytical data collected following the treatments have demonstrated that remediation has been effective in the reduction of TCE and hexavalent chromium to meet site specific risk-based closure goals for groundwater. Figures 6A, 6B, 7A, and 7B in the PSS show the concentrations of TCE, cis-1,2-dichloroethene, and vinyl chloride and chromium and hexavalent chromium, respectively, in groundwater on- and off-property and surface water off-property.

1.4.2 SOIL

A Release Abatement Measure (RAM) was performed in 2007 in which soil contaminated with xylenes and polycyclic aromatic hydrocarbons (PAHs) above Method 1 S-2 standards were removed from the Site. Some soil containing concentrations of chromium and lead above the lowest Method 1 standards was also removed from an area of approximately 5,000 sq ft.

1.5 SUMMARY OF METHOD 3 RISK CHARACTERIZATION

In brief, this risk characterization considers media affected by the subject releases, which include soil, groundwater, surface water, and sediment. This risk characterization includes current receptors identified for each of the applicable exposure points, as well as potential future receptors. As described below, some future uses of the Site are not evaluated herein and are being restricted as part of an Activity and Use Limitation (AUL) or as a condition of the PSS per 310 CMR 40.1013. In addition, use of groundwater as drinking water at and in the vicinity of the Site has been restricted through the implementation of Notices Restricting Use of Groundwater for the Site, so there are not any complete exposure pathways for potable use of on- or off-property groundwater. These Notices are in effect at properties that are located within the limits of the Disposal Site as shown on **Figure 1**. One minor exception is 436 Main Street, which does not have a Notice; however, there are no private wells at this property and groundwater at the property is not otherwise categorized as GW-1, so a potential exposure pathway for potable use of groundwater is not complete.

The off-property portion of the Disposal Site includes several occupied residential structures; however, there are not any complete exposure pathways associated with these residences (aside from that of a nearby resident potentially accessing surface water and sediment of the Unnamed Brook). Off-property soil is not part of the Disposal Site. In addition, investigations at those properties have demonstrated that a potential vapor intrusion pathway is not complete.

Therefore, there are not any complete current vapor intrusion pathways associated with the Site. As mentioned above, use of groundwater for personal, domestic, and industrial uses has also been restricted.

The media evaluated, contamination migration pathways, potential exposure routes, and applicable receptors are summarized in **Figure 2**. This information is also provided in a more concise form in **Table 1**, which shows each of the areas of the Site (on- or off-property), the media evaluated for each area, and the receptors evaluated for each medium. Exposure pathways for each receptor have been identified on a receptor-specific basis. Note that an exposure pathway for soil is not complete for off-property receptors because off-property soil is not part of the Disposal Site as reported in the PSS.

Risks were calculated for each of these receptors and their associated exposure pathways. Noncancer risks were compared to the MassDEP noncancer risk limit of 1, and cancer risks were compared to the MassDEP cancer risk limit of $1x10^{-5}$. The results of the human health risk characterization are summarized below.

Current Land Use, Activities, and Conditions

The exposure scenarios evaluated under current conditions, where the on-property portion of the Site is vacant and unused, are an on- and off-property trespasser, on- and off-property emergency utility worker, and off-property nearby resident. The complete exposure pathways for these receptors are shown in **Table 1** and include exposure to soil, groundwater, sediment, and/or surface water.

Noncancer and cancer risks are below MassDEP risk limits for each of these receptors and the associated exposure pathways. Emergency utility workers are evaluated as an acute risk scenario in **Section 2.5.4**, and this risk evaluation demonstrated that there is a condition of No Significant Risk for this exposure scenario.

There are concentrations of OHM in groundwater that are above GW-2 Standards at the Site (see Figures 6A and 6B of the PSS).

For the current residential properties that are located within the boundaries of the Disposal Site, site investigations have demonstrated that a potential vapor intrusion pathway is not complete.

Potential Future Land Use, Activities, and Conditions

The exposure scenarios evaluated under future conditions are an on-property commercial worker, on- and off-property construction worker, and on- and off-property utility worker (for planned non-emergency utility work). The complete exposure pathways for these receptors are shown in **Table 1** and include exposure to soil and groundwater.

Noncancer and cancer risks are below MassDEP risk limits for each of these receptors and the associated exposure pathways.

There are concentrations of OHM in groundwater that are above GW-2 Standards at the Site (see Figures 6A and 6B of the PSS). For the portions of the 436 Main Street and the 418 Main Street properties, and for parcels I-57 and I-60B, the GW-2 category does not currently apply because there are not occupied buildings present within those areas. To account for the potential that one or more occupied buildings may be constructed in these specific areas where groundwater concentrations are above GW-2 standards, the PSS includes a condition pursuant to 310 CMR 40.1013(1)(d) that an evaluation of a potential vapor intrusion pathway be conducted prior to the construction of future occupied buildings to show that this pathway is consistent with a condition of No Significant Risk. If a condition of No Significant Risk cannot be demonstrated, then mitigation measures may be necessary. For the on-property portion of the Disposal Site, the AUL that is being implemented for a portion of this parcel also includes the requirement to conduct an evaluation of a potential vapor intrusion pathway prior to the construction of an occupied building, and to implement protective measures should they be deemed to be necessary.

Hypothetical Future Land Use, Activities, and Conditions (Residential)

As mentioned above, there are residences located within the off-property portion of the Disposal Site. However, the only potentially complete exposure pathways for an off-property resident are for direct contact with surface water and sediment, which are evaluated as a current exposure scenario and are consistent with a condition of No Significant Risk. Other potential exposure pathways for an off-property resident are incomplete.

Hypothetical future residential use and other uses of the on-property portion of the Disposal Site that involve sensitive receptors (such as a school or playing fields) were not evaluated in this Method 3 risk assessment. Accordingly, an AUL is being implemented at the Conductorlab property to restrict use of the property for single-family and multi-family residential use; use of the Property for an elementary or secondary school, kindergarten, preschool, or daycare; active recreational use such as playing fields or a playground; and use for cultivation of plants such as fruits or vegetables for human consumption, and other agricultural uses.

Conclusions of the Method 3 Risk Characterization

A condition of No Significant Risk to human health exists for the exposure scenarios evaluated under current conditions, where the on-property portion of the Site is vacant and unused, which are an on- and off-property trespasser, on- and off-property emergency utility worker, and off-property resident.

A condition of No Significant Risk to human health for exposure to soil and groundwater at the Site exists for exposure scenarios evaluated under future conditions, which are an on-property commercial worker, on- and off-property construction worker, and on- and off-property utility worker (for planned non-emergency utility work).

In addition, there are concentrations of OHM in groundwater that are above GW-2 Standards at the Site (see Figures 6A and 6B of the PSS).

For the portions of the 436 Main Street and the 418 Main Street properties and for parcels I-57 and I-60B, the GW-2 category does not currently apply because there are not occupied buildings present within those areas. To account for the potential that one or more occupied buildings may be constructed in these specific areas where groundwater concentrations are above GW-2 standards, the PSS includes a condition pursuant to 310 CMR 40.1013(1)(d) that an evaluation of a potential vapor intrusion pathway be conducted prior to the construction of future occupied buildings to show that this pathway is consistent with a condition of No Significant Risk. If a condition of No Significant Risk cannot be demonstrated, then mitigation measures may be necessary. For the on-property portion of the Disposal Site, the AUL that is being implemented for a portion of this parcel also includes the requirement to conduct an evaluation of a potential vapor intrusion pathway prior to the construction of an occupied building, and to implement protective measures should they be deemed to be necessary.

For other future activities and uses of the Conductorlab property, a condition of No Significant Risk to human health will be achieved once an AUL is implemented that restricts use of the property for single-family and multi-family residential use; use of the property for an elementary or secondary school, kindergarten, preschool, or daycare; active recreational use such as playing fields or a playground; and use for cultivation of plants such as fruits or vegetables for human consumption, and other agricultural uses.

For the off-property portion of the Site, the potentially complete exposure pathways for current, future, and hypothetical future uses have been evaluated and are either incomplete or are associated with a condition of No Significant Risk. Therefore, a condition of No Significant Risk exists for off-property portion of the Disposal Site.

A condition of No Significant Risk to public welfare and the environment exists for the Disposal Site. Soil and groundwater concentrations are below corresponding Upper Concentration Limits (UCLs).

A Stage II ERC has concluded that a condition of No Significant Risk exists for the environment for the Disposal Site.

In addition, a condition of No Significant Risk to safety exists for the Disposal Site.

In summary, current and future foreseeable conditions at the Conductorlab Site are consistent with a condition of No Significant Risk to public welfare, safety, and the environment. A condition of No Significant Risk to human health will be achieved with the implementation of an AUL at the Conductorlab property to restrict other uses of the property that have not been evaluated herein. In addition, a potential vapor intrusion pathway must be evaluated and shown to be consistent with a condition of No Significant Risk should any future occupied buildings be constructed in the portions of the Disposal Site that are within the 436 Main Street property and the 418 Main Street property, and that are in parcels I-57 and I-60B where concentrations in groundwater are above GW-2 Standards. If a condition of No Significant Risk cannot be demonstrated, then mitigation measures may be necessary.

2.0 HUMAN HEALTH

The following subsections describe the approach and discuss the components of the human health risk characterization (HHRC).

2.1 APPROACH

A Method 3 approach to risk characterization was selected for the Disposal Site addressed herein. As specified in the MCP (MassDEP, 2014a), a Method 3 risk characterization is acceptable for any MCP disposal site.

The HHRC approach involves four steps. The first step, Hazard Identification, involves identification of the contaminants of concern (COC) detected at the Site and any adverse carcinogenic or non-carcinogenic effects associated with the COC. The second step, Exposure Assessment, involves identification of potential human receptors, based on characteristics of the property and the surrounding area. Subsequently, the magnitude and frequency of receptors' potential exposure to COC is quantified. The third step, Dose-Response Assessment, describes the relationship between the magnitude of exposure for each COC (dose) and the potential for adverse health effects. The fourth step, Risk Characterization, combines the information from the Exposure Assessment with the information from the Dose-Response Assessment to derive quantitative estimates of the cancer risk and noncancer hazard for each receptor for each potential exposure pathway identified in the Exposure Assessment. The risks and hazards from all exposure pathways are summed to obtain an estimate of cumulative cancer risk and noncancer hazard for each receptor.

This risk characterization was conducted using conservative exposure assumptions. Because of the use of conservative assumptions, actual site risks are likely to be lower than the estimated risks.

2.2 HAZARD IDENTIFICATION

The Hazard Identification includes compilation of available data, selection of representative data for the HHRC, summarization of the data and selection of COC. The COC are those chemicals carried through the HHRC. In the datasets used in this HHRC, analytes may have been reported by more than one analytical method in a given sample (e.g., volatile organic compounds [VOCs] and volatile petroleum hydrocarbons [VPH]). These results, with one exception as noted below for soil, were not resolved in this step and are addressed in Section 3.

Available analytical data are identified, discussed, and summarized for soil, groundwater, surface water, and sediment in Sections 2.2.1, 2.2.2, 2.2.3, and 2.2.4, respectively. Section 2.2.5 summarizes the selection of COC for soil, groundwater, surface water, and sediment.

2.2.1 SOIL

The soil dataset includes samples collected at the Conductorlab property in 1993, 2003 through 2007, 2017, and 2018. Surface (0-3 feet below ground surface [bgs]) and subsurface (3-15 feet bgs) soil sampling locations are shown on **Figures 3** and **4**, respectively. Off-property soil has not been impacted by the release and is not part of the Disposal Site.

A comprehensive evaluation of the soil data collected at the Site was conducted to determine what data were usable for this HHRC. This evaluation is provided in a table in the Representativeness Evaluation and Data Usability Assessment (REDUA) of the PSS. In brief, soil sampling results were generally excluded from the dataset used for this HHRC for one or more of the following reasons:

- Sample was collected from excavated soil and was not representative of current site conditions
- Sample was a field duplicate QC sample or other QC sample (e.g., matrix spike)

- Sample was analyzed for toxicity characteristic leaching procedure (TCLP) and not bulk soil analysis
- Sample was associated with the wastewater treatment system
- Sample location was considered to be representative of background conditions or was a "clean" sample (e.g., was analyzed for VOCs and none were detected)
- Sample information such as sampling depth could not be verified
- Sample was representative of a waste material and not soil

Other than data excluded from the dataset for one or more of the reasons listed above, soil data collected from the Site were considered usable unless rejected by the lab. Overall, the data that were used in this HHRC are considered representative of current conditions at the Site.

Soil samples collected at the Site have been analyzed for one or more of the following: VOCs, semi-volatile organic compounds (SVOCs), VPH, extractable petroleum hydrocarbons (EPH), polychlorinated biphenyls (PCBs), metals, cyanide, and miscellaneous parameters. Soil data for the Site are presented in **Table A-1**. Summary statistics for detected analytes for on-property surface soil (0-3 ft), subsurface soil (3-15 ft), combined soil (0-15 feet), and all soil (all depths) are shown in **Tables 2, 3, 4,** and **5**, respectively. A comparison of the soil data to MassDEP background levels is provided in **Table 6** and is discussed further in Section 2.2.5.

The summary statistics include the frequency of detection, minimum detected concentration, maximum detected concentration, arithmetic mean concentration, and the range of reporting limits for non-detect results. For the purpose of calculating arithmetic mean concentrations, one-half the method reporting limit was used to represent the concentrations of constituents reported as not detected (ND). Tentatively identified compounds (TICs) for the soil analyses conducted at the Site are shown in **Table 5**. These chemicals are included for informational purposes only and were not evaluated in this risk characterization. A discussion of TICs as a point of uncertainty in this risk characterization is provided in Section 2.6.

Note that soil data collected in 2017 and 2018 were collected and analyzed for chromium using multiple analytical approaches. For these samples, field XRF analysis for chromium (39 locations, multiple depths) was conducted, and splits from a large subset of these samples was submitted to a fixed laboratory for analysis of total chromium and hexavalent chromium. Based on a review and comparison of the XRF and laboratory results, the total chromium fixed lab data have been used for samples that had been analyzed using both XRF and the lab, and the XRF data have been used only for samples that were not analyzed by the lab.

2.2.2 GROUNDWATER

The groundwater dataset used to support this HHRC consists of groundwater samples collected from September 2017 to September 2021, and groundwater collected from bedrock wells in 2013 and 2014. The locations of monitoring wells at the Site are shown for on-property wells and off-property wells in **Figures 5**, and **6**, respectively. Note that these figures include only groundwater wells sampled from 2017 to 2021. Locations of all wells that have been sampled at the Site are shown on Figures 2 and 3 of the PSS. Groundwater monitoring at the Site has typically been conducted on a semi-annual basis from a consistent network of on- and off-property monitoring wells. The groundwater dataset used herein generally represents eight rounds of seasonal groundwater sampling from a given monitoring well (September 2017, April and October 2018, March and September 2019, April and October 2020, and April 2021). Groundwater data from 2017 to 2021 are considered to best represent potential current groundwater exposures at the Site, as they were collected subsequent to the conclusion of groundwater remedial activities at the Site, including operation of the groundwater treatment system and ISCO and ISCR injections.

Groundwater data from the bedrock wells from 2013 and 2014 were included because these represent the most recent available data from these wells.

The data from these wells were used to represent post-ISCO conditions at the Site and specifically to demonstrate that Site conditions in groundwater have improved such that groundwater concentrations do not exceed groundwater UCLs. There are no complete exposure pathways associated with bedrock groundwater.

Groundwater samples collected at the Site have been analyzed for VOCs, metals, and water quality parameters. Groundwater data for the Site are presented in **Tables A-2** (VOCs), **A-3** (metals)**, A-4** (water quality parameters), and **A-5** (bedrock groundwater). Statistical summaries of the 2017-2021 groundwater data, including frequency of detection, minimum and maximum detected concentrations, arithmetic average concentration, and range of reporting limits for non-detect results, are provided for overburden groundwater in **Table 7**, for on-property groundwater at wells screened at 15 feet or shallower in **Table 8**, and off-property groundwater at wells screened at 15 feet or shallower in **Table 9**. The data from wells screened at 15 feet or shallower are summarized separately because they are being used to evaluate a construction/utility worker exposure scenario for potential exposure to groundwater in an excavation.

2.2.3 SURFACE WATER

The surface water dataset used to support this HHRC consists of surface water samples collected from December 2019 to September 2021. Surface water sampling locations are shown on **Figure 7**. Surface water monitoring at the Site has been conducted on a quarterly basis from the same set of sampling locations. The surface water dataset used herein generally represents eight rounds of seasonal sampling, although some sampling locations could not be sampled for certain sampling events due to dry conditions. Surface water data from 2019 to 2021 are considered to best represent potential current exposures at the Site, as they were collected subsequent to the conclusion of remedial activities at the Site.

Data from surface water sampling locations SW-BGK-001BGK001, CSW-BKG002, and CSW-1 were not used in the HHRC because they were considered to represent background or upstream conditions and were not representative of conditions at the Disposal Site.

Surface water samples collected at the Site have been analyzed for VOCs, metals, and water quality parameters. Surface water data for the Site are presented in **Tables A-6** (VOCs), **A-7** (metals)**,** and **A-8** (water quality parameters). A statistical summary of the surface water data, including frequency of detection, minimum and maximum detected concentrations, arithmetic average concentration, and range of reporting limits for non-detect results, is provided in **Table 10**.

2.2.4 SEDIMENT

Sediment data from 2005, 2007, and 2018 were used to support this HHRC. Sediment sampling locations are shown on **Figure 7**. Samples were collected from several locations in 2005 and 2007 and a subset of locations in 2018. Therefore, although remediation has been conducted at the Site since the 2005 and 2007 samples were collected, the results from all sediment samples were included in order to provide representative data for the sampling locations that were only sampled as part of the earlier sampling events. In addition, downstream sediment conditions do not appear to have changed substantially from 2005 to 2018.

Sediment samples collected at the Site have been analyzed for VOCs, SVOCs, pesticides, metals, and other parameters. Sediment data for the Site are presented in **Tables A-9** (VOCs), **A-10** (SVOCs), **A-11** (pesticides), **A-12** (metals), and **A-13** (other parameters). A statistical summary of the sediment data, including frequency of detection, minimum and maximum detected concentrations, arithmetic average concentration, and range of reporting limits for non-detect results, is provided in **Table 11**.

2.2.5 SELECTION OF CONTAMINANTS OF CONCERN (COC)

In general, analytes detected in soil, groundwater, surface water, and sediment samples representative of the Site were retained as COC unless they met certain criteria, consistent with an approach of considering total site risk for constituents detected at the Site. MassDEP guidance (1995) lists several reasons why an individual chemical may be eliminated from consideration as a COC, including:

- Laboratory Artifacts: it is probable that these chemicals are from laboratory contamination of the results and are not representative of Site concentrations;
- Background: reported levels are consistent with background and there is no evidence that their presence is related to releases at the Site;
- Low Frequency of Detection and Low Concentration: these chemicals are present in limited amounts and there is no history of past or current use at the Site; or
- Essential nutrients present at typical concentrations in the associated medium.

2.2.5.1 Soil

The selection of COC for soil is shown in **Table 5**, including the rationale for including or excluding a chemical as a COC. Chemicals were excluded as COC based on background, due to low frequency of detection and low concentrations, as a TIC, or because they are an essential nutrient. Evaluations of background and low frequency/low concentrations are discussed below. TICs are addressed as an uncertainty in this Method 3 risk characterization in Section 2.6. Chemicals that might have otherwise been excluded as COC but that were included as potentially Site-related were 1,1,1-trichlorethane, methylene chloride, and vinyl chloride. In addition, dibenz(a,h)anthracene was included as a COC as being related to other PAHs detected at the Site.

OHM detected in soil were eliminated as potential COC based on low frequency of detection and low concentrations if they were detected in less than five percent of samples and the maximum detected concentration was not more than five times the reporting limit. Chemicals eliminated as COC on this basis are shown in **Table 5**. Chemicals eliminated as COC on this basis were primarily petroleum-related VOCs and one SVOC.

Published background data are available for metals and PAHs in soil (MassDEP, 2002, 2016). These data include background information for: 1) natural soils, and 2) soil containing coal ash or wood ash associated with fill material, or other material consistent with the regulatory definition of background. For the subject Disposal Site, background for "natural soils" was used for the background comparison.

In accordance with current guidance (MassDEP, 1995), the maximum detected soil concentrations have been compared to the available published background concentrations. OHM with maximum detected site concentrations that do not exceed the MassDEP published background concentrations are considered to be consistent with background, are not selected as COC, and are not included in the HHRC per 310 CMR 40.0902(3). This comparison is shown in **Table 6** for OHM with applicable background levels for comparison. Acenaphthylene, benzo(b)fluoranthene, cadmium, and indeno(1,2,3-cd)pyrene were not selected as COC on the basis of the background comparison. Note that PAHs were analyzed by both SVOC and EPH methods, and the maximum detected concentration by either method was used for the background comparison. In addition, if a PAH was detected above background by one method, it was included as a COC for both the SVOC and EPH analytical methods.

Arsenic in soil was also excluded as a COC for this risk characterization based on background conditions. The Disposal Site is located in a well-established area of locally higher arsenic concentrations in soil in central Massachusetts (the "arsenic belt") that is due to geological conditions and not to contamination.

The arsenic concentrations at the Site are evaluated in **Attachment B** relative to arsenic concentrations detected at other Disposal Sites in the nearby vicinity (**Attachment B-1**), by comparison to a background threshold value (BTV) calculated using data from these nearby Sites (**Attachment B-2**), and through a geochemical evaluation comparing arsenic concentrations at the Conductorlab Site with other indicator metals (**Attachment B-3**). Overall, while arsenic concentrations at the Conductorlab Site have been detected above concentrations observed at Sites in the nearby vicinity, geochemically, arsenic shows a highly correlated relationship to aluminum at the Site, indicating that the arsenic detected in soil is due to geologic conditions of the Site and not to anthropogenic contamination. In addition, there is no information in the Site history or in the former uses of chemicals at the Site that would indicate that arsenic is associated with a release at the Site. The primary COC associated with Site releases are chlorinated VOCs and chromium. Given these lines of evidence, arsenic has been eliminated as a COC for soil in **Tables 5** and **6**.

2.2.5.2 Groundwater

For groundwater, no background comparisons were performed. However, OHM detected in groundwater were eliminated as potential COC based on low frequency of detection (detected in less than five percent of samples) and detection at low concentrations (maximum concentration that is not more than five times the reporting limit). The selection of COC for groundwater is shown in **Table 7**. Chemicals eliminated as COC on this basis were 1,1-dichloroethane, acetone, 2-butanone, carbon disulfide, methyl tert butyl ether, o-xylene, and tetrahydrofuran.

2.2.5.3 Surface Water and Sediment

For surface water and sediment, no background comparisons were performed, and no chemicals were excluded as COC based on low frequency of detection or low concentrations. Water quality parameters such as alkalinity were not included as COC for surface water. Therefore, COC for surface water were VOCs and metals, and COC for sediment were VOCs, SVOCs, pesticides, and metals.

2.2.5.4 Summary of COC

A summary of COC by medium and area is shown in **Table 12.** The general categories of COC retained in the risk characterization consist of VOCs, SVOCs, petroleum-related compounds, metals, and pesticides.

2.3 EXPOSURE ASSESSMENT

This section identifies the type and magnitude of potential exposures to COC that may occur at the Disposal Site under current and reasonably foreseeable future site activities and uses, consistent with the requirements of the MCP at 310 CMR 40.0923. The components of the exposure assessment include identification of current and potential site uses and activities, receptors, exposure media, exposure routes, exposure points (and hot spots), exposure point concentrations, and quantitation of exposures.

First, potential receptors were identified based on conditions present at the Site and surrounding area. Next, potential routes and pathways of exposure were identified for each receptor based on information about activities that typically occur or could be expected to occur at the Site.

2.3.1 CURRENT AND POTENTIAL FUTURE SITE USES

The Disposal Site consists of an on-property portion that is within the Conductorlab property, and an off-property portion that includes vacant, wooded properties or residential properties; an Unnamed Brook and wetlands along the path of the Unnamed Brook; and the confluence of the Unnamed Brook and Gratuity Brook, which are adjacent to and in the vicinity of the Conductorlab property. The boundaries of the subject Disposal Site that have been defined subsequent to the completion of remedial activities are shown on **Figures 1, 5, and 6.** The limits of the Disposal Site relative to groundwater have been defined based on the where wells with any detections of Site-related chemicals are located; wells that are and have been non-detect were not included in the limits of the Disposal Site.

Note that these figures include only groundwater wells sampled from 2017 to 2021. Locations of all wells that have been sampled at the Site are shown on Figures 2 and 3 of the PSS.

The on-property portion of the Site is currently vacant and is no longer improved by any building structures since demolition of the groundwater treatment system building in November 2017. The only other physical structures present at the property are the concrete slab from the historical main manufacturing building and a perimeter fence. This risk assessment has not assumed that this fence remains in place as a deterrent to accessing the Conductorlab property by trespassers.

Under current site conditions, the Conductorlab property is vacant. It is assumed that trespassers could access the property occasionally. There are no existing plans to redevelop the Conductorlab property; however, it may be sold and redeveloped in the future for uses consistent with those specified in the AUL that is being recorded for the property. Therefore, future foreseeable uses of the Conductorlab property are commercial/industrial.

Most of the off-property areas of the Site are wooded, vacant, and/or consist of a water body and wetlands. These areas are assumed to remain as they are under current and future foreseeable conditions. It is assumed that a trespasser or nearby resident could access the water features within the Site occasionally under current and future conditions. The current and future foreseeable use of the residential properties that are located within the Disposal Site are anticipated to continue to be residential. Consistent with the Notices Restricting Use of Groundwater at those properties, there is no use of groundwater for personal, domestic, or industrial purposes.

Construction activities are not planned within the Disposal Site; however, construction is a potential future activity for any area within the Site. In addition, utility work, including emergency utility work, may be conducted at the Site under current and future foreseeable conditions on an as-needed basis.

Depth to groundwater within the Site is around five feet bgs on average (on- and off-property); therefore, construction or utility work activities would likely encounter groundwater in an excavation.

2.3.2 SOIL AND GROUNDWATER CATEGORIZATION

Soil and groundwater at the Site were categorized, as is required for Method 3 risk characterizations, pursuant to the soil classification matrix in the MCP at 310 CMR 40.0933(9) and groundwater classifications at 310 CMR 40.0932. Identification of applicable soil categories is based on receptor and exposure information, whereby the exposure is a function of the receptors present, frequency and intensity of use at the Site, and accessibility of the soil.

Three possible soil categories are identified in 310 CMR 40.0933. Soil is classified into either category S-1, S-2, or S-3 based on Disposal Site, receptor, and exposure information. While only one category is applicable to a specified volume of soil, subsurface materials in different areas of a disposal site may be classified in different categories, depending on their exposure potential. Category S-1 soils are associated with the highest potential for exposure (i.e., high frequency, high intensity contact by children and adults), while category S-3 soils have the lowest potential for exposure (i.e., low frequency, low intensity exposures). The potential for exposure to soil is described by a qualitative analysis of the accessibility of the soil in combination with information concerning frequency and intensity of exposure for Disposal Site activities and uses.

The applicable soil categories consider soils within the horizontal boundaries of the disposal site and the vertical extent of contamination. The extent of impacted soils is limited to the portion of the Site within the Conductorlab property. Under current conditions, the on-property portion of the Site is vacant, and a portion of the Site is covered by a concrete slab. Per the MCP, for current land use, unpaved soil from 0-3 feet bgs is classified as S-2 and soil beneath the slab, unpaved soil from 3-15 feet bgs, and soil deeper than 15 feet bgs is classified as S-3 based on a low frequency/low intensity use by a trespasser.

Under future conditions, it is assumed that the future use of the property could include commercial or industrial activities. It is also assumed that the slab could be removed, such that the property is neither paved nor covered by a slab. Under these future conditions, the soil categories that would apply are based on an adult worker being present with high frequency and low intensity, which are S-2 for unpaved soil from 0-3 feet bgs and S-3 for unpaved soil from 3-15 feet bgs and soil deeper than 15 feet bgs. If, in the future, the Site was paved or covered by a building, then soil category S-3 would apply for soil beneath pavement or a building.

Future residential use of the on-property portion of the Conductorlab Site is being restricted as part of an AUL; therefore, residential use was not considered. (As noted above, for the residential properties that are within the Disposal Site, the soil has not been impacted and is not part of the Disposal Site.)

Groundwater in the Disposal Site is not classified as GW-1 because, based on the Priority Resources Map for the Site, the Site is not located within a Current or Potential Drinking Water Source Area as defined by the MCP at 310 CMR 40.0006. There are no existing private wells that are currently in use. This is based on the implementation of Notices Restricting Use of Groundwater for the Site, which were implemented in May 1995.

These Notices were implemented based on the conclusions of a risk characterization conducted as part of the Phase II Site Assessment for the Site (HMM, 1993). The risk characterization established that groundwater did not pose a significant risk to human health as long as public water continued to be used as a domestic water source. The Notices "prohibit[ed] the use of groundwater at the properties for any personal, domestic, or industrial use unless and until such use is approved by the DEP." The Notices also "prohibit installation of any private water supply wells at the property and require deactivation or destruction of any existing private water supply wells on the subject properties." Notices were recorded for 29 properties – 10 properties that were completely or partially within the Disposal Site, 19 at other properties where the owners voluntarily filed such Notices – as listed below.

Properties that are within the limits of the Disposal Site as defined in the PSS are indicated with bold font in the below table; one property (150 Mill Street) that had been within the limits of the Disposal Site as defined in 1995 is no longer within the limits of the Disposal Site:

FORMER PARCEL ID	CURRENT PARCEL ID	STREET ADDRESS
I-49[2]	**110-24**	**23 Gratuity Rd**
	110-25.2	**199 Mill Street**
	110-25.1	**197 Mill Street**
I-87	**110-35**	**430 Main Street (formerly 420 Main Street)**
I-50	**110-27**	**241 Mill Street**
I-49A	**110-20**	**179 Mill Street**
I-60C	**110-6**	**415 Main Street**
	110-36	**418 Main Street**
I-60B	**110-07**	**423 Main Street**
I-56	**110-12**	**206 Mill Street**
I-55A	**110-11**	**210 Mill Street**
I-57 A-D[4]	**110-09**	**Mill Street**
	110-13	**Mill Street**
	110-14	**Mill Street**
	110-15	**Mill Street**
I-55	**110-10**	**21 Arlington Street**
	216-5	13 Anthony Drive
		94 Gratuity Road
I-34B		38 Gratuity Road
I-46D		57 Gratuity Road
I-46B		61 Gratuity Road
I-43	216-47	63 Gratuity Road
		66 Gratuity Road
		104 Gratuity Road
I-35		445 Main Street
		257 Mill Street
I-48	110-23	219 Mill Street
I-34	110-26	231 Mill Street
I-63[3]	110-16	150 Mill Street
		38 Fitch Bridge

Notes:

1. Properties **Bolded** are located within the Disposal Site Boundary.
2. Parcel I-49 was divided into three new parcels.
3. Parcel I-63 was located in the Disposal Site Boundary as defined in 1995 but is no longer within the Site limits.
4. Parcels I-57 A-D are unoccupied properties that are currently owned by Grimes Aerospace.

On-property groundwater is not classified as GW-2 because there is not an existing or planned occupied building or structure within 30 feet at the on-property portion of the Disposal Site.

Some off-property groundwater is classified as GW-2 because it is within 30 feet of the existing residences that are located within Disposal Site (depth to groundwater is typically less than 15 feet bgs throughout the Disposal Site). The locations of off-property residences are shown on **Figure 7**.

Lastly, all groundwater in the Commonwealth is classified as GW-3.

Therefore, on-property and off-property groundwater is classified as GW-3, and groundwater within 30 feet of off-property residences is also classified as GW-2.

2.3.3 SITE RECEPTORS

Receptors were identified by the current and reasonably future foreseeable uses of the Site (**Section 2.3.1**). Receptors for each area for current and future conditions, for which at least one complete exposure pathway has been identified, are summarized in **Table 1** and **Figure 2**.

Under current conditions, on-property receptors are trespassers and emergency utility workers. Under future foreseeable conditions, on-property receptors would also include commercial/industrial workers, non-emergency utility workers, and construction workers. Residential and other uses of the on-property portion of the Disposal Site that would involve sensitive receptors, such as a school or daycare, are

being prohibited as part of an AUL. Therefore, residents are not assumed to be potential future receptors for the on-property portion of the Site.

Under current conditions, off-property receptors are a trespasser, a resident (child and adult), and an emergency utility worker. Under future conditions, off-property receptors would also include a non-emergency utility worker and construction worker. There are some vacant wooded parcels located off-property and within the Disposal Site where the only anticipated receptor is a trespasser (there are no complete exposure pathways for this receptor).

2.3.4 EXPOSURE PATHWAYS

An exposure pathway involves a receptor, exposure medium, and exposure route(s). Exposure scenarios and pathways evaluated in this risk characterization are summarized below.

2.3.4.1 Complete Exposure Pathways

As elements of an exposure pathway, receptors for the Site have been summarized in **Section 2.3.3**, and media of concern for the Site were summarized in **Section 2.1**. The receptors evaluated for each medium and for each area of the Site are tabulated in **Table 1**. In this section, exposure routes for these receptors and associated media are identified, and, combined, these consist of the exposure pathways evaluated for the Site. As mentioned previously, off-property soil is not part of the Disposal Site; therefore, there are not any complete exposure pathways for off-property soil.

The complete exposure pathways identified for the receptors at the Site are as follows:

- Current on-property emergency utility worker: exposure to soil from 0-6 feet bgs for incidental ingestion and dermal contact, and exposure to groundwater in an excavation for incidental ingestion, dermal contact, and inhalation of vapors from groundwater in an excavation (this receptor was evaluated as an acute risk exposure scenario in **Section 2.5.4**)

- Current off-property emergency utility worker: exposure to groundwater in an excavation for incidental ingestion, dermal contact, and inhalation of vapors from groundwater in an excavation (this receptor was evaluated as an acute risk exposure scenario in **Section 2.5.4**)
- Current on-property trespasser: exposure to soil from 0-3 feet bgs for incidental ingestion and dermal contact
- Future on-property trespasser: exposure to soil from 3-15 feet bgs for incidental ingestion and dermal contact
- Current off-property trespasser: exposure to surface water and sediment for incidental ingestion and dermal contact
- Current and future off-property nearby resident: exposure to surface water and sediment for incidental ingestion and dermal contact
- Future on-property commercial worker: exposure to soil from 0-3 or 3-15 feet bgs for incidental ingestion and dermal contact
- Future on-property construction worker: exposure to soil from 0-15 feet bgs for incidental ingestion and dermal contact, and exposure to groundwater in an excavation for incidental ingestion, dermal contact, and inhalation of vapors from groundwater in an excavation
- Future off-property construction worker: exposure to groundwater in an excavation for incidental ingestion, dermal contact, and inhalation of vapors from groundwater in an excavation
- Future on-property utility worker: exposure to soil from 0-6 feet bgs for incidental ingestion and dermal contact, and exposure to groundwater in an excavation for incidental ingestion, dermal contact, and inhalation of vapors from groundwater in an excavation (this receptor was evaluated qualitatively using the risk calculations performed for a construction worker)
- Future off-property utility worker: exposure to groundwater in an excavation for incidental ingestion, dermal contact, and inhalation of vapors from

groundwater in an excavation (this receptor was evaluated qualitatively using the risk calculations performed for a construction worker)

Tables 13, 14, and **15** include exposure parameter values for soil, groundwater, and surface water and sediment respectively, that were used to calculate the daily intakes for each of the receptors and exposure pathways. The assumptions were developed using MassDEP guidance documents consistent with the MCP. USEPA sources were accessed when MassDEP values were not available (USEPA, 2014) (as referenced in the tables) and site-specific information.

2.3.4.2 Incomplete Exposure Pathways and Restrictions on Site Uses and Activities

Based on current and future conditions at the Site, the following exposure pathways were not considered to be complete for the purposes of this HHRC. These pathways are deemed to be incomplete based either on Site conditions or on the basis of land use restrictions that have been implemented at the Site. In addition, some on-property uses of the Site are not evaluated herein and are being restricted as part of an AUL.

- Off-property soil is not considered part of the Disposal Site, such that exposure pathways related to soil were not considered complete for the off-property portion of the Disposal Site.
- Potable use of groundwater at the Site is not considered a current or future foreseeable use because of the Notices prohibiting this use of groundwater for personal, domestic, and industrial purposes. Therefore, there are not any complete exposure pathways associated with use of groundwater for potable purposes.
- This HHRC does not evaluate potential receptors within the on-property portion of the Disposal Site that would be exposed with a higher frequency and/or intensity than a commercial/industrial worker or construction/utility worker. As such, an AUL is being implemented that prohibits uses of the property that would be associated with greater exposure potential than commercial/industrial uses and construction/utility activities. These are

single-family and multi-family residential use; use of the Property for an elementary or secondary school, kindergarten, preschool, or daycare; active recreational use such as playing fields or a playground; and use for cultivation of plants such as fruits or vegetables for human consumption, and other agricultural uses.

- Concentrations in on-property groundwater within the Site are above GW-2 concentrations (see Figure 6A of the PSS), indicating that vapor intrusion may be of potential concern. However, there is not a potential complete exposure pathway for vapor intrusion on-property because there are no buildings present, and no occupied buildings are planned to be constructed. For the on-property portion of the Disposal Site, the AUL that is being implemented for a portion of this parcel also includes the requirement to conduct an evaluation of a potential vapor intrusion pathway prior to the construction of an occupied building, and to implement protective measures should they be deemed to be necessary.
- Concentrations in off-property groundwater within the Site are also above GW-2 concentrations (see Figure 6B of the PSS), indicating that vapor intrusion may be a potential concern. However, previous investigations of a potential vapor intrusion pathway by MassDEP and WSP USA (as Amec Foster Wheeler) at off-property residences have demonstrated that this pathway is not complete (HMM Associates Inc., 1993; Honeywell, 2015). One of the properties sampled by MassDEP and WSP USA was in the area overlying the highest off-property groundwater concentrations; however, sampling conducted at this property indicated that contamination was not migrating from groundwater through soil gas and into indoor air. This evaluation was documented in the risk characterization provided in the Phase II Comprehensive Site Assessment by HMM Associates, Inc. and in a letter from Honeywell submitted to MassDEP in 2015 (HMM Associates Inc., 1993; Honeywell, 2015). Therefore, there are not any complete vapor intrusion pathways for off-property residences.

- No gardening for the purposes of growing produce for human consumption currently occurs at the Conductorlab property and that use is not foreseeable. Therefore, consumption of produce via on-Site gardening was not considered a complete exposure pathway. Further, use of the on-property portion of the Disposal Site for cultivation of plants such as fruits or vegetables for human consumption, and other agricultural uses is being restricted as part of the AUL. Off-property soil is not part of the Disposal Site; therefore, while gardening may occur at other properties (e.g., the residences), consumption of produce from gardening is not a complete exposure pathway relative to the Disposal Site.

2.3.5 EXPOSURE POINTS

This section summarizes the identification of exposure points for the various media where a complete exposure pathway has been identified for the Disposal Site. As defined in the MCP, an exposure point is the location of potential contact between a human or environmental receptor and a release of OHM. An exposure point may describe an area or zone as well as a single point. The identification of exposure points included the identification of Hot Spots. For this HHRC, exposure points have been identified for soil, groundwater, surface water, and sediment.

2.3.5.1 Soil

In the MCP (310 CMR 40.0924), exposure points for soil are defined as "the vertical and horizontal distribution of the material in soil in combination with the soil category(ies) determined to be applicable" (310 CMR 40.0973(3)(b)). As mentioned previously, off-property soil is not part of the Disposal Site; therefore, soil exposure points are limited to the on-property portion of the Site.

A soil Hot Spot Analysis was performed as a component of identifying exposure points. Consistent with the MCP (310 CMR 40.0924) and the Guidance for Disposal Site Risk Characterization (MassDEP, 1995), discrete areas that meet the MCP definition of a Hot Spot (310 CMR 40.0006) must be evaluated separately for the purpose of comparisons to upper concentration limits (UCLs) and evaluated as separate exposure

points for the purposes of human health exposure assessment. An evaluation of potential hot spots for soil is provided in **Table 16**. The predominant chemical for which hot spots were considered was hexavalent chromium. To aid in the evaluation of the hexavalent chromium soil data, **Figure 8** was included to show the patterns in the detected concentrations of hexavalent chromium across the on-property portion of the Disposal Site. As shown in this figure, there are some higher concentrations of hexavalent chromium in the southern and northeastern parts of the on-property area. However, based on the evaluation in **Table 16**, none of these concentrations or groups of concentrations meet the criteria specified in the MCP to be identified as a hot spot for soil at the Site. Therefore, no hot spots were identified for hexavalent chromium.

For xylenes, one sample collected from location PRA1-B3 at a depth of 5-6 feet bgs in February 2007 and analyzed using the MassDEP VPH method had a concentration of xylenes above the applicable S-3/GW-3 Standard. However, this result was not considered to be a hot spot for multiple reasons. First, an analysis of the same sample using USEPA Method 8260 for VOCs was below the S-3/GW-3 Standard, as shown in **Table 16**. The result using the USEPA 8260 method may better represent the xylene concentrations in this sample as the 8260 method uses mass spectrometry (MS), whereas the MassDEP VPH method uses flame ionization detection (FID). MS is a more selective analytical method in that it is typically better able to identify specific compounds and is less prone to co-elution of multiple chemicals, which may occur with FID. If co-elution were to occur, this could result in a high bias to the results such that they would not necessarily be representative of the concentration of a particular compound. In addition, another soil sample (B-232) was subsequently collected from approximately the same location at a depth of 4-6 feet bgs, and this result was also below the S-3/GW-3 Standard. Overall, based on the disparity between the VPH and VOC results and the fact that this result could not be replicated, this xylenes result at PRA1-B3 is not considered to be a hot spot for xylenes in soil.

Based on the soil categories identified for the Site and the receptors identified, the following exposure points were identified for soil:

- Surface soil (0–3 feet bgs), as S-2 soil
- Subsurface soil (3-15 feet bgs), as S-3 soil
- Combined surface and subsurface soil (0-15 feet bgs) for a construction worker exposure scenario

It was also assumed that, in the future, were excavation activities to occur, that soil from 3-15 feet bgs could be excavated and brought to the surface. As such, future receptors identified for the on-property portion of the Disposal Site were evaluated for potential exposure to soil from 3-15 feet bgs.

2.3.5.2 Groundwater and Excavation Air

As the Site is not located within a potential drinking water source area, the only complete exposure pathways for groundwater are direct contact and inhalation of volatiles from excavation air for a construction/utility worker. The general areas of the Site that were evaluated for exposure to a construction/utility worker are on- and off-property. The on-property area was considered separately as it is a single parcel of land where construction activities may occur, and it also has generally higher concentrations of chemicals in groundwater. The off-property area of the Site is the portion of the Disposal Site as shown on **Figure 6** that is outside the Conductorlab property, which extends westward across residential properties and wooded, vacant lots. The off-property portion of the Disposal Site is identified for the purposes of this HHRC as one exposure point because there is not any location where construction is planned, and there are not any specific areas within the off-property area where construction is more likely to occur based on the locations of the available monitoring well data. Therefore, exposure to groundwater in this area is considered to be equally likely for a future construction worker, such that there is no area where exposure is considered more likely, and the off-property area could reasonably be evaluated as a single exposure point.

2.3.5.3 Surface Water and Sediment

The surface water and sediment sampling locations at the Site are shown in **Figure 7**. For the purposes of this HHRC, one exposure point was identified for both surface

water and sediment using the available datasets for each medium (including those sample locations with evidence of releases from the Site). There were not any specific sampling locations for either surface water or sediment that were considered to have a greater exposure potential than other locations.

2.3.6 EXPOSURE POINT CONCENTRATIONS (EPCS)

This section summarizes the development of EPCs for the various exposure points identified for the Disposal Site. EPCs represent the concentration of OHM that a receptor is assumed to be exposed to at each exposure point, by each exposure route. Per 310 CMR 40.0926(3), the concentration used to represent each OHM should be a conservative estimate of the arithmetic average concentration.

The use of an average as the EPC would be considered to be appropriate if the following conditions are met per CMR 40.0926(3)(b): for discrete or composite samples, the arithmetic average is less than or equal to the applicable standard, 75% of the data points used in the averaging procedure are equal to or less than the applicable standard or risk-based concentration limit, and no data point used in the averaging is ten times greater than the applicable standard or risk-based concentration limit.

As defined in the MCP (310 CMR 40.0926(3)(c)), the 95% upper confidence limit (95% UCL) on the mean concentration or maximum concentrations should be used to provide a conservative estimate of the mean when a simple arithmetic average is likely to underestimate the true mean, including data with a high degree of variability.

2.3.6.1 Soil

EPCs for soil were calculated as the arithmetic average of the levels of COC in soil within a particular exposure point, based on the identification of soil exposure points in Section 2.3.5.1, if the data met the criteria listed above for using an average. The arithmetic average of the analytical data for the soil samples was calculated using one-half of the reporting limit for non-detects. If the maximum detected concentration was lower than the value that was calculated as the arithmetic average, then the

maximum detected concentration was used as the EPC. The identification and calculation of EPCs for soil are shown in **Tables 17** through **19** for soil 0-3 feet bgs, 3-15 feet bgs, and 0-15 feet bgs, respectively. In addition, if a COC was analyzed by more than one analytical method, the maximum of the potential values of an EPC associated with the different methods was used as the EPC, and only the selected EPC (as associated with a particular analytical method) is shown in the tables.

2.3.6.2 Groundwater

EPCs for groundwater for the purposes of evaluating potential exposure to construction workers were calculated as the arithmetic average of the concentrations of COC in groundwater for each of the on-and off-property exposure points. The arithmetic average of the analytical data for groundwater samples was calculated using one-half of the reporting limit for non-detects. The use of an average as the EPC is considered to be appropriate because the data meet the MCP requirements (310 CMR 40.0926(3)(b)) for using the average concentration. Although there is no groundwater standard that specifically applies to a construction worker exposure scenario, all groundwater in Massachusetts is categorized as GW-3, so the GW-3 Standard was used as an applicable standard by which to meet the criteria in 310 CMR 40.0926(3)(b). Because the criteria for using an average are met, using an average as the EPC is unlikely to substantially underestimate the mean concentrations in groundwater at the Disposal Site. A summary of the groundwater EPCs used for evaluating exposure to construction/utility workers at the Site is presented in **Table 20**.

2.3.6.3 Excavation Air

In order to evaluate potential exposures to constituents that may volatilize from groundwater into ambient air, EPCs for excavation air were estimated for potential excavations for the on- and off-property groundwater exposure points. The EPCs for excavation air were estimated from average concentrations of volatile constituents in groundwater.

For this HHRC, the VDEQ Unified Risk Assessment Model (VDEQ, 2016) was used to model the concentration of volatile COCs in the air of an excavation resulting from volatilization from standing water infiltrating and pooling within the excavation from groundwater. The VDEQ model calculates an emission factor, which is then incorporated with assumptions about area and wind speed using a simple mass-transfer box model to estimate air concentrations. The derivation of the EPCs for excavation air for a construction/utility worker (based on groundwater EPCs) is shown in **Attachment C** and applies only to COC that are considered volatile. A summary of the excavation air EPCs is presented in **Table 20**.

2.3.6.4 Surface Water and Sediment

Due to the relatively limited datasets for surface water and sediment as well as the distance between the sampling locations, the maximum detected concentrations of COC in surface water and sediment were used as EPCs for these media. This is conservative representation of exposure as it assumes that a receptor could come into contact with any of the highest concentrations observed in these media at the Site. Sediment and surface water EPCs are summarized in **Table 21**.

2.3.7 QUANTIFICATION OF POTENTIAL EXPOSURE

This section describes the equations and assumptions used to evaluate potential exposures of identified receptors to COC detected at the Disposal Site. The equations used to evaluate potential human health exposures in this risk characterization are consistent with equations presented by MassDEP (1995) and USEPA (1989, 2011, and 2014).

The Average Daily Dose (ADD) is calculated to estimate a receptor's potential daily intake and evaluate the potential noncarcinogenic effects of that exposure. According to MassDEP (1995) and USEPA (1989), the exposure dose should be calculated by averaging over the period of time for which the receptor was assumed to be exposed. Subsequently, the ADD for each compound via each route of exposure is divided by the noncarcinogenic RfD for that compound in order to estimate the potential

noncarcinogenic hazard index due to exposure to that compound via that route of exposure.

For chemicals with potential carcinogenic effects, the lifetime average daily dose (LADD) is calculated to estimate potential exposures over the course of a lifetime (70 years). Subsequently, the LADD for each compound via each route of exposure is multiplied by the cancer slope factor for that compound to estimate the potential carcinogenic risk due to exposure to that compound via that route of exposure.

The equations used to estimate ADDs and LADDs are presented on the following pages. The human exposure parameters used in calculating COC intakes are presented in **Table 13** for soil, **Table 14** for groundwater and excavation air, and **Table 15** for surface water and sediment. These exposure parameters and the chemical-specific factors used to calculate ADD and LADD from these equations are also included in the spreadsheets contained in **Attachment D** to this report. The exposure parameters are based on the parameters in the MassDEP Risk Assessment Shortforms (March 2015), when available, or the parameters used by MassDEP to develop the Method 1 Soil Standards. For a nearby resident for exposure to surface water and sediment, this exposure was assumed to be similar to a recreational scenario (i.e., wading in the brook or walking along the banks of the brook), and to occur two days per week for 30 weeks of the year.

2.3.7.1 Soil and Sediment

Exposure to soil was assumed to occur via incidental ingestion and dermal contact. Note that these equations also apply to exposure to sediment, with sediment-specific exposure parameters. ADDs and LADDs for soil ingestion were calculated as follows:

$$ADD_{ing} \text{ or } LADD_{ing} = \frac{C_{soil} \times IR_{soil} \times FI \times RAF_{os} \times CF \times EF \times EP}{AT \times BW}$$

where:

ADD_{ing}	=	Average Daily Dose Due to Ingestion (mg/kg-day)
$LADD_{ing}$	=	Lifetime Average Daily Dose Due to Ingestion (mg/kg/day)
C_{soil}	=	Compound Concentration in Soil (mg/kg)
IR_{soil}	=	Soil Ingestion Rate (mg/day)
FI	=	Fraction of Soil Ingested From the Site (unitless)
RAF_{os}	=	Relative Absorption Factor (Oral-Soil) (unitless)
CF	=	Conversion Factor (10^{-6} kg/mg)
EF	=	Exposure Frequency (days/year)
EP	=	Exposure Period (years)
BW	=	Body Weight (kg)
AT	=	Averaging Time (EP x 365 days/yr, ADD; 70yr x 365 days/yr, LADD)

ADDs and LADDs for dermal absorption were calculated as follows:

$$ADD_{der} \text{ or } LADD_{der} = \frac{C_{soil} \times SA \times AF \times RAF_{ds} \times CF \times EF \times EP}{AT \times BW}$$

where:

ADD_{der}	=	Average Daily Dose Due to Dermal Contact (mg/kg-day)
$LADD_{der}$	=	Lifetime Average Daily Dose Due to Dermal Contact (mg/kg/day)
C_{soil}	=	Compound Concentration in Soil (mg/kg)
SA	=	Skin Surface Area Exposed (cm^2/day)
AF	=	Soil to Skin Adherence Factor (mg/cm^2)
RAF_{ds}	=	Relative Absorption Factor (Dermal-Soil) (unitless)
CF	=	Conversion Factor (10^{-6} kg/mg)
EF	=	Exposure Frequency (days/year)
EP	=	Exposure Period (years)
BW	=	Body Weight (kg)
AT	=	Averaging Time (EP x 365 days/yr, ADD; 70yr x 365 days/yr, LADD)

The calculation of a LADD as opposed to an ADD is simply a matter of averaging time (AT).

2.3.7.2 Groundwater and Surface Water

In order to estimate the potential carcinogenic risk and hazard posed by the ingestion route of exposure, the same basic equation is used as the ingestion pathway from soil/sediment, with the contact rate estimated by an ingestion rate of groundwater or surface water (L/day).

The estimation of dermal dose is more complex. The estimation of DAD and DA_{event} from dermal contact with groundwater and surface water is based on a dermal permeability Coefficient (Kp) in units of (cm/hr). This approach is discussed by USEPA (USEPA, 1989; 2004). The Kp values and several other parameters necessary to calculate dermal dose from exposure to organic compounds in water were obtained from MassDEP (2015) and USEPA (2018). The basic equation is below, and the calculations for DA_{event} are given in full detail in **Attachment D**.

$$DAD = \frac{DA_{event} \times SA \times EF \times ED \times EP}{OAE \times BW \times AT}$$

where:

DAD	=	Dermal Absorbed Dose (mg/kg-day)
DA_{event}	=	Absorbed Dose per Event (mg/cm^2-event)
SA	=	Surface Area (cm^2)
ED	=	Event Duration (termed Event Frequency by USEPA) (events/day)
EF	=	Exposure Frequency (days/year)
EP	=	Exposure Period (termed Exposure Duration by USEPA) (years)
OAE	=	Oral Absorption Efficiency (for cancer/noncancer) (dimensionless)
BW	=	Body Weight (kg)
AT	=	Averaging Time (years)

2.3.7.3 Inhalation of Particulates

Inhalation of particulates (fugitive dust) was also evaluated. Exposure via inhalation of soil-derived fugitive dust is a function of the concentration at the source (e.g., soil), frequency and duration of contact and a factor describing the concentration of compound in respirable particles in air.

MassDEP (2008) considers that potential exposure via inhalation of dust occurs via two uptake pathways: uptake by the gastrointestinal (GI) tract following coughing up and subsequent swallowing of particulates trapped by the mucosa of the upper respiratory track and uptake by the respiratory system following inhalation into the lungs. To calculate the exposure associated with these two uptake pathways, MassDEP assumes the following for the construction worker scenario (which this risk characterization also conservatively used for other receptors):

- 100% of respirable particulate mass (PM) is equal to or less than 30 microns in diameter (<=PM_{30})
- 50% of total respiratory particulate mass is equal to or less than 10 microns in diameter (<=PM_{10})
- 100% of inhaled particulates greater than 10 microns but less than or equal to 30 microns are swallowed. 50% of inhaled particulates equal to or less than 10 microns are swallowed
- 50% of inhaled particulates equal to or less than 10 microns enters the lungs.

Based on these assumptions, the effective exposure concentration of respirable particulates for the GI system is 1.5 times the concentration of PM_{10}, while that for the lungs is 0.5 times the concentration of PM_{10}. Using these effective exposure concentrations, OHM average daily doses for the GI and respiratory systems can be estimated using the following equations.

Average Daily Dose for the GI System ($ADD_{inhalation-GI}$):

$$ADD_{inhalation-GI} = \frac{[Cpart] \times 1.5 \times [PM10] \times IR_{air} \times RAF_i \times ET \times EF \times EP \times C}{BW \times AT}$$

where:

$ADD_{inhalation-GI}$ = Average daily dose due to coughing up and subsequent ingestion of inhaled particulates; expressed in mg/kg-day

$[C_{part}]$ = Concentration of OHM in airborne particulates

$[PM_{10}]$ = Concentration in air of particulates less than or equal to 10 microns in diameter

IR_{air} = Inhalation rate for the receptor of concern during the period of exposure

RAF_i = Relative Absorption Factor (inhalation)

ET = Duration of each exposure event (hr/day)

EF = Exposure frequency (days/year)

EP = Duration of the exposure period (years)

C = Appropriate unit conversion factor

BW = Body weight of the receptor of concern during the averaging period

AT = Averaging time

Average Daily Dose for the Respiratory System ($ADD_{inhalation}$)

$$ADD_{inhalation} = \frac{[Cpart] \times 0.5 \times [PM10] \times IR_{air} \times RAF_i \times ET \times EF \times EP \times C}{BW \times AT}$$

where:

$ADD_{inhalation}$ = Average daily dose due to inhaled particulates entering the lungs (mg/kg-day)

$[C_{part}]$ = Concentration of OHM in airborne particulates (mg/kg)

$[PM_{10}]$ = Concentration in air of particulates less than 10 microns in diameter ($\mu g/m^3$)

IR_{air} = Inhalation rate (m^3/hr)

RAF_i = Relative Absorption Factor

ET = Duration of each exposure event (hr/day)

EF = Exposure frequency (days/yr)

EP = Duration of the exposure period (years)

C = Appropriate unit conversion factor (10^{-9} kg/µg)

BW = Body weight (kg)

AT = Averaging time (d)

Dose-response values for inhalation exposure (i.e., unit risk factor and reference concentration) are expressed on a mass of compound per volume of air basis, using the assumption that a person weighs 70 kg and has a daily inhalation rate (Inh_{day}) of 20 m^3. Therefore, prior to the characterization of risk, $ADD_{inhalation}$ (mg/kg-day) for the compound must be converted to an average daily exposure ($ADE_{inhalation}$) (mg/m^3) in order to make it compatible with the corresponding dose-response values. This can be accomplished using the following equation:

$$ADE_{inhalation} = \frac{ADD_{inhalation} \times BW_{assumed}}{Inh_{assumed}}$$

where:

$ADE_{inhalation}$ = Average daily oil/hazardous material concentration to which a receptor is exposed (mg/m^3)

$ADD_{inhalation}$ = Average daily dose due to inhaled particulates entering the lungs (mg/kg-d)

$BW_{assumed}$ = Body weight assumed in the development of RfCs and URFs (kg)

$Inh_{assumed}$ = Daily inhalation rate assumed in the development of RfCs and URFs (20 m^3/d)

For the evaluation of the construction worker, the concentration of PM_{10} in air was assumed to be 60 $\mu g/m^3$ (MassDEP, 2008).

2.3.7.4 Excavation Air

Inhalation exposures are handled somewhat differently from oral exposures, as MassDEP (1995) requires the use of Unit Risk Factors (UR) and Reference Concentrations (RfC) for evaluating this exposure pathway. These values represent a level of risk or hazard associated with continuous exposure (i.e., 24 hours per day for a lifetime). Therefore, these toxicity factors must be used with an Average Daily Exposure (ADE) rather than an ADD as calculated for oral or dermal exposures. The ADE is simply the estimated exposure point concentration adjusted for non-continuous exposures:

$$ADE = C_{air} \times AF$$

where:

ADE = Average Daily Exposure (µg/m^3-day)
C_{air} = Concentration of COC in air
AF = Adjustment Factor (unitless)

and where:

$$AF = \frac{ED \times EF \times EP}{24\,{}^{hr}/_{d} \times 365\,{}^{d}/_{y} \times AP}$$

where:

ED = exposure duration (hr/day)
EF = exposure frequency (days/yr)
EP = exposure period (years)
AP = averaging period (years)

2.4 DOSE-RESPONSE ASSESSMENT

The purpose of the Dose-Response Assessment is to identify the relationship between the magnitude of exposure (dose) and the potential for an adverse health effect (response). Both noncarcinogenic (*i.e.*, threshold) and carcinogenic (*i.e.*, non-threshold) health effects were considered in the dose-response assessment. The information provided in the Dose-Response Assessment was combined with the results of the Exposure Assessment (**Section 2.3**) to provide an estimate of potential health risk.

2.4.1 NONCARCINOGENIC DOSE-RESPONSE

Chemicals are assumed to have potential noncarcinogenic effects and to have a dose below which no adverse effect occurs, or conversely, above which an effect may be possible. In laboratory experiments, such a dose is known as the "No Observed Adverse Effect Level" (NOAEL). The lowest dose at which an adverse effect is seen is

called the "Lowest Observed Adverse Effect Level" (LOAEL). By applying uncertainty factors to the NOAEL or the LOAEL, the USEPA developed Reference Doses (RfDs) for chronic and, in some cases, subchronic, exposures to chemicals with noncarcinogenic effects (United States Environmental Protection Agency (USEPA), 2020a).

Uncertainty factors account for uncertainties associated with the dose-response data, such as the appropriateness of using an animal study to derive a human dose-response value, and the potential for especially sensitive subpopulations to exist, which may not be adequately represented by the laboratory test animals. The Reference Dose (RfD) or Reference Concentration (RfC) is an estimate of a daily exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. RfDs are expressed in terms of milligrams of chemical per kilogram of body weight per day (mg/kg-day) and are used to evaluate estimated oral and dermal exposures. RfCs are expressed in terms of milligrams of chemical per cubic meter of air (mg/m^3) and are used to evaluate estimated inhalation exposures in a specific exposure context (continuous exposure for a chronic period of time).

2.4.2 CARCINOGENIC DOSE-RESPONSE

USEPA has often assumed for regulatory risk assessment that no threshold dose exists for chemicals that are considered carcinogenic. In other words, USEPA assumes that a finite level of risk may be associated with any dose above zero. In March 2005, USEPA issued new cancer guidelines (USEPA, 2005), the purpose of which is to recommend principles and procedures to guide USEPA scientists in assessing the cancer risks from chemicals or other agents in the environment when deriving toxicity values. USEPA uses a two-part system for characterizing the extent to which the available data support the hypothesis that an agent causes cancer in humans.

USEPA's first step in evaluating a potential carcinogen is to assign a weight-of-evidence (WOE) classification. Under U. S. EPA's previous cancer guidelines released

in 1986, the WOE was described by categories "Group A" through "Group E", with Group A category reserved for known human carcinogens, while Group E category was the other end of the spectrum, representing compounds/agents with evidence of non-carcinogenicity. In USEPA's more recent approach for carcinogen risk assessment (USEPA, 2005), all scientific information is considered in determining whether and under what conditions an agent may cause cancer in humans. Furthermore, the WOE provides a narrative approach to characterize carcinogenicity rather than distinct categories by summarizing the evidence about the likelihood of the compound being a human carcinogen. Five standard WOE descriptors are currently used as part of the narrative, including:

- Carcinogenic to Humans
- Likely to be Carcinogenic to Humans
- Suggestive Evidence of Carcinogenic Potential
- Inadequate Information to Assess Carcinogenic Potential
- Not Likely to be Carcinogenic to Humans

As part of the updated guidance on evaluating potentially carcinogenic compounds, the USEPA emphasizes the value of understanding the biological changes that the agent of interest can cause (e.g., mode of action) and how these changes might lead to the development of cancer. This information, as well as the agent's human carcinogenic potential is to be described in a narrative prepared by USEPA's scientists, summarizing the full range of available evidence and describes any conditions associated with conclusions about an agent's hazard potential, including which populations or life stages may be particularly susceptible. Since the data for many of the potentially carcinogenic compounds have not been re-evaluated since the initial derivation of the cancer slope factors under the 1986 cancer guidelines, the cancer toxicity information presented in IRIS (USEPA's database of recommended cancer slope factors and reference doses for use in risk assessments) represents cancer toxicity information derived under the 1986 guidelines, with more recent cancer

evaluations conducted for a limited number of compounds under the more recent 2005 guidance.

The second step in the carcinogenicity evaluation process is the calculation of a quantitative estimate of carcinogenic potency. USEPA has developed computer models that extrapolate the observed responses at high doses used in animal studies to predict responses in humans at the low doses encountered during environmental exposures. Most of the models developed by USEPA assume no threshold and usually consider animal (and sometimes human) data to estimate carcinogenic potency. Further, the models assume that carcinogenic dose-response is linear at low doses. USEPA refers to this numerical estimate of the dose response factor (or the slope of the line plotted from dose vs. response) as the cancer slope factor (CSF) for oral exposures. For inhalation exposures, the numerical estimate is expressed as a unit risk (UR) factor. A CSF is expressed in terms of risk per milligram of agent per kilogram body weight per day [$(mg/kg\text{-}day)^{-1}$] and represents the upper-bound excess lifetime cancer risk estimate that results from a daily exposure to an agent at 1 mg/kg-day. The UR is expressed in terms of risk per micrograms per cubic meter [$(\mu g/m^{3})^{-1}$] and represents the upper-bound excess lifetime cancer risk estimated to result from continuous exposure to an agent at a concentration of 1 $\mu g/m^3$ in air.

2.4.3 SOURCE OF DOSE-RESPONSE INFORMATION

Dose-response information used in this risk characterization was selected to be consistent with recent MassDEP publications. For scenarios where risks were calculated using the most recent version of the MassDEP Risk Assessment Shortforms (March 2015), dose-response information is as provided by the Shortform files (MassDEP, 2015). For other scenarios, toxicity data from the MassDEP Shortform files was used in the associated risk calculation spreadsheets.

MassDEP obtains dose-response values from:

- MassDEP-derived and published dose-response values documents
- USEPA Integrated Risk Information System (IRIS) (USEPA, 2022a).

- USEPA Health Effects Assessment Summary Tables (HEAST) (USEPA, 1997)
- California EPA's Office of Environmental Health and Hazard Assessment (OEHHA)
- Provisional Peer-Reviewed Toxicity Values (PPRTVs) from the USEPA National Center for Environmental Assessment (NCEA) in Cincinnati, Ohio (USEPA, 2022b).

Selection of toxicity values for use in the risk characterization are in accordance with 310 CMR 40.0993(5); preference has been given to dose-response values derived by the MassDEP. For compounds that did not have dose-response values derived by the MassDEP, values were obtained using the same sources listed above. CSFs and URs are presented in **Table 22**. Chronic and subchronic RfDs and RfCs are presented in **Table 23**.

2.4.4 RELATIVE ABSORPTION FACTORS (RAFs)

The premise of calculating risk or hazard was that potential human exposure dose was similar to the administered dose or applied dose in a laboratory experiment. The animal-derived cancer slope factors (CSFs) and reference doses (RfDs) used in quantitative risk assessment were based on applied doses in most cases. However, the efficiency of COC absorption via a particular route and from a particular matrix (e.*g.*, soil, water) at a site may differ from the absorption efficiency for the exposure route and matrix used in the experimental study that serves as the basis for the CSF or RfD. RAFs are used to adjust the exposure dose based on these two absorption efficiencies. As recommended by MassDEP (1995) and USEPA (1989), RAFs for COC related to the Disposal Site were derived and used in the calculation of human exposure doses.

RAFs used in this risk characterization are presented in **Table 24.** The RAFs were obtained from MassDEP's Risk Assessment Shortforms (MassDEP, 2015). If RAFs were not available in the Shortform, default values of 1 for ingestion and 0.1 for

SVOCs and 0.03 for VOCs for the dermal pathway were assumed, consistent with the MassDEP Risk Assessment Shortforms.

2.5 RISK CHARACTERIZATION

Risk characterization is the step in the risk assessment process that combines the results of the exposure assessment and the dose-response assessment for each COC in order to estimate the potential for noncarcinogenic and carcinogenic human health effects from exposure to that compound. This section summarizes the results of the risk characterization for each exposure scenario evaluated herein.

2.5.1 CALCULATION OF NONCANCER RISK

The potential for exposures to COC identified for the Disposal Site to result in adverse noncarcinogenic health effects was estimated for each receptor by comparing the Average Daily Dose (ADD) or Average Daily Exposure (ADE) for each compound and exposure route (derived in **Section 2.3.7**) with the Reference Dose or Reference Concentration for that compound. The resulting ratio is known as the Hazard Quotient (HQ) for that compound. The HQ was calculated using the following formula:

$$HQ = \frac{ADD}{RfD} \; or \; \frac{ADE}{RfC}$$

where:

HQ	=	Hazard Quotient (unitless);
ADD/ADE	=	Average Daily Dose (mg/kg-day) or Average Daily Exposure (ADE) (mg/m^3); and
RfD/RfC	=	Reference Dose (mg/kg-day) or Reference Concentration (RfC) (mg/m^3).

The HQs for each compound were summed to yield the Hazard Index (HI) for that exposure route. The HIs for the media applicable to a given exposure scenario are then summed to calculate a Cumulative Receptor Noncancer Risk. The Cumulative

Receptor Noncancer Risk is compared to MassDEP's Cumulative Noncancer Risk Limit for demonstrating a condition of No Significant Risk of 1.

2.5.2 CALCULATION OF CANCER RISK

The purpose of carcinogenic risk characterization is to estimate the likelihood, over and above the background cancer rate, that a receptor will develop cancer in his or her lifetime as a result of exposures related to COC in the subject portion of the Disposal Site in various environmental media. This likelihood is a function of the dose of a compound and the Cancer Slope Factor (CSF) or Inhalation Unit Risk (IUR) for that compound. The relationship between the Excess Lifetime Cancer Risk (ELCR) and the estimated Lifetime Average Daily Dose (LADD) or Lifetime Average Daily Exposure (LADE) of a compound may be expressed as:

$$ELCR = 1 - e^{-CSF\ or\ IUR \times LADD\ or\ LADE}$$

where:

ELCR	=	Excess Lifetime Cancer Risk (unitless);
CSF or IUR	=	Cancer Slope Factor (1/(mg/kg-day)) or Inhalation Unit Risk (IUR, 1/ug/m^3-day); and
LADD or LADE	=	Lifetime Average Daily Dose (mg/kg-day) or Lifetime Average Daily Exposure (LADE) (ug/m^3-day).

When the product of the CSF and the LADD/LADE is much greater than 1, the ELCR approaches 1 (*i.e.*, 100% probability). When the product is less than 0.01 (1x10^{-2}), the equation can be closely approximated by:

$$ELCR = CSF \times LADD$$

$$or$$

$$ELCR = IUR\ x\ LADE$$

The product of the equation is unitless and provides an estimate of the potential carcinogenic risk associated with a receptor's exposure to that compound via that pathway. ELCRs are calculated for each potentially carcinogenic compound. For each receptor, the ELCRs for each exposure route by which the receptor is assumed to be

exposed is calculated by summing the potential risks derived for each compound. A Total Excess Lifetime Cancer Risk (Cumulative Receptor Cancer Risk) is then calculated by summing the pathway-specific ELCRs. The Cumulative Receptor Cancer Risk is compared to MassDEP's Cumulative Cancer Risk Limit for demonstrating a condition of No Significant Risk of $1x10^{-5}$.

2.5.3 SUMMARY OF HUMAN HEALTH RISK CHARACTERIZATION RESULTS

Table 25 summarizes the results of the risk characterization for all receptors, media, and exposure points. For each receptor and medium combination, the medium-specific noncancer and cancer risks are presented, and the Cumulative Receptor Noncancer Risk (HI) and Cumulative Receptor Cancer Risk for each receptor is presented to allow comparison to corresponding MCP risk limits. The risk calculations, which provide results for each receptor, exposure pathway, and COC, are contained in **Attachment D**. Subchronic risks were only calculated for receptors with an intermediate exposure period (fewer than seven years in total), which includes construction workers), and as provided by the MassDEP Risk Assessment Shortforms.

As shown in **Table 25**, ELCRs and noncancer HIs for receptors and exposure pathways evaluated in this HHRC are below their respective MassDEP risk limits. Therefore, these scenarios are associated with a condition of No Significant Risk. Because the ELCRs and HIs for construction workers are below 1×10^{-5} and 1, respectively, the cancer and noncancer risks for a utility worker for these exposure scenarios would also be below the MCP risk limits of 1×10^{-5} and 1, respectively. While a utility worker would only be exposed to soil from 0-6 feet bgs, the risks for other receptors for soil from 0-3 and 3-15 feet bgs are similar, indicating that there is not a noticeable difference in soil quality between the various depths.

For some receptors, it is possible that they could be represented by multiple exposure scenarios. Specifically, the off-property trespasser could be the same person as the on-property trespasser, and the on-property construction worker could be the same person as the off-property construction worker. However, for each receptor evaluated,

the selected exposure parameters represent a conservative estimate of their exposure to a given medium at the specified exposure point over the given exposure period. If a receptor were to be exposed across multiple exposure points, their exposure overall would not be greater than the exposure represented by any given exposure point, and therefore the risks calculated for any possible combination of exposure points would not be higher than the risks for any given exposure point. Since the risks calculated in this HHRC are below the MassDEP risk limits, there are not any combinations of exposure scenarios at the Site that could possibly represent potential risks that would be above the MassDEP risk limits.

In addition, the on-property trespasser and on-property commercial worker were evaluated for exposure to two separate exposure points for soil at 0-3 feet bgs and 3-15 feet bgs. As shown in **Table 25**, the calculated risks for these two soil exposure points are similar. As such, there is not a material difference between exposure to the two different soil categories at the Site. If, in the future, the Site was to be redeveloped and the soil in the zone of 0-15 feet bgs was mixed, risks to future receptors at the Site would be below the MassDEP risk limits because the individual risks for the two soil categories are below MassDEP risk limits, and a combined soil risk would not be higher than the risk calculated for a subset of the soil.

2.5.4 ACUTE RISK CHARACTERIZATION

In addition to considering long-term (chronic) and intermediate-term (subchronic) risks, a HHRC must also consider potential short-term (acute) risks posed by COC identified at a Disposal Site. Acute risk pertains to very short-term exposures of less than one week in duration. Examples of acutely toxic substances that would need to be evaluated if they were present are hexavalent chromium (contact dermatitis), hydrogen cyanide (lethality), and trichloroethene (TCE) (developmental effects). Cyanide is not a COC at the Site; therefore, there is not a potential acute risk from cyanide.

TCE is a COC for the Site in soil, groundwater, and excavation air. TCE has potential acute effects via inhalation; as such, soil and groundwater direct contact exposure are

not a potential concern for acute effects for TCE. Exposure to construction and utility workers for inhalation of excavation air were evaluated based on the RfC for TCE, which is protective of acute effects. The TCE excavation air EPCs for the Site are below MassDEP's "Imminent Hazard" value for TCE in indoor air of 24 µg/m^3 for workplace receptors; therefore, there is not an acute risk associated with potential exposure to TCE in excavation air (MassDEP, 2020).

Exposure to an emergency utility worker, specifically, is considered an acute exposure as the assumed exposure period for this receptor is one week or less. At this Site, this receptor could potentially be exposed to COC in soil, groundwater, and/or excavation air. As stated above, exposure to TCE at the Site does not pose an acute risk for any exposure points at the Site for the associated receptors. However, hexavalent chromium is a COC for soil and groundwater at the Site. The relevant route of exposure for hexavalent chromium for an acute scenario is dermal contact with soil, and exposure to groundwater would not pose a potential acute risk. The concentration of hexavalent chromium in soil that would be identified as a potential concern by MassDEP for an acute exposure scenario is 200 mg/kg.

An evaluation of potential acute risk to an emergency utility worker at the Site for potential exposure to hexavalent chromium in soil was conducted by evaluating the hexavalent chromium concentrations in the areas of current utilities that are within the on-property portion of the Site, as off-property soil is not part of the Disposal Site. These utilities are located in the north and western portions of the property, as shown on **Figure 5**. Comparing the locations of these utilities with concentrations of hexavalent chromium in soil, as shown on **Figure 8**, shows that concentrations of hexavalent chromium in soil in the vicinity of these utility corridors are in areas that are colored green or yellow, so they are not above 200 mg/kg. Therefore, the concentrations of hexavalent chromium in soil at the Site would not pose a potential acute risk to emergency utility workers.

Based on this acute risk evaluation, there is a condition of No Significant Risk for potential acute exposures at the Site.

2.5.5 APPLICABLE OR SUITABLY ANALOGOUS PUBLIC HEALTH STANDARDS

The MCP at 310 CMR 40.0993 (3) requires the comparison of EPCs to Applicable and Suitably Analogous (public health) Standards (ASAS) in addition to quantitative risk assessment. The general list of potential ASAS provided in the MCP is the Massachusetts Drinking Water Quality Standards, the Massachusetts Air Quality Standards, and the Massachusetts Surface Water Quality Standards. Since groundwater in the Disposal Site is not categorized as GW-1 and use of groundwater for potable purposes is restricted, the Massachusetts Drinking Water Quality Standards do not apply.

Surface water is part of the Disposal Site. However, the Surface Water Quality Standards identified in 310 CMR 4.00 for human health pertain to either surface water used as a source of drinking water and for consumption of fish/shellfish, or for consumption of fish/shellfish only. The surface water body – the Unnamed Brook – that is part of this Disposal Site is not used as a drinking water source and is highly unlikely to yield any fish or shellfish that would be suitable for human consumption, in particular because the stream is dry for some portion of the year. Therefore, the Surface Water Quality Standards in the regulations as pertain to human health, are not considered to be applicable at this Site.

The Massachusetts Air Quality Standards relate to ambient concentrations of the so-called “criteria pollutants” (sulfur oxides, particulate, carbon monoxide, ozone, nitrogen dioxide and lead). No criteria pollutants have been measured in air at the Disposal Site.

No other applicable or suitably analogous public health standards have been identified for the Disposal Site.

2.6 UNCERTAINTY ANALYSIS

Within any of the four steps of the risk assessment process, assumptions must be made due to a lack of absolute scientific knowledge. Some of the assumptions are

supported by considerable scientific evidence, while others have less support. Every assumption introduces some degree of uncertainty into the risk assessment process. Conservative assumptions are made throughout the risk assessment to ensure that the health of human and environmental receptors is protected. Therefore, when all the assumptions are combined, it is much more likely that actual risks are over-estimated rather than under-estimated.

The assumptions that introduce the greatest amount of uncertainty in this risk assessment are discussed in this section. They are discussed in general terms, because for most of these assumptions there is not enough quantitative information to assign a numerical value that can be factored into the calculation of risk.

2.6.1 HAZARD IDENTIFICATION

During the Hazard Identification step, chemicals are selected for inclusion in the quantitative risk characterization. Detected compounds in soil, groundwater, surface water, and sediment were considered COC and evaluated in the risk characterization, unless excluded as consistent with background conditions, were not Site-related, were detected in one or two samples as TICs, or were detected with low frequency and at low concentrations that would not represent a potential contribution to risk. The availability of results for TICs is also a consideration in the uncertainty of the hazard identification step. However, because these chemicals are TICs, their identity and therefore their toxicity is uncertain. In addition, the TICs detected in soil samples at the Site were infrequently detected, so a single detection or two is unlikely to result in exposure to any of these chemicals at the Site. Therefore, it is unlikely that exposures to media at the Site related to the release are under-estimated by the hazard identification step.

Analytical data used to support the PSS and this Method 3 Risk Characterization underwent a data quality review to the extent that laboratory reports were available to evaluate the data. Specifically, data reports for the groundwater, sediment, and surface water data were available, and laboratory reports for most soil data were available. There was a small subset of soil results for which laboratory reports were

not able to be reviewed because the samples were collected by a prior consultant and the files were not available.

Analytical data are subject to the "presumptive certainty" requirements as defined in "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data" (BWSC-CAM-VIIA, rev. 2 dated January 19, 2017). All Compendium of Analytical Methods (CAM) compliant data used in this Method 3 risk assessment were reviewed to assess data quality and data usability. This review was conducted using the data usability criteria as defined in "MCP Representativeness Evaluations and Data Usability Assessments" (MassDEP Policy #WSC-07-350), as well as the individual analytical methods defined in MassDEP's Compendium of Analytical Methods. Overall, the data were considered usable for the purposes of the PSS and this risk characterization.

2.6.2 EXPOSURE ASSESSMENT

During the exposure assessment, average daily doses of COC to which receptors are potentially exposed are calculated, which involves assumptions about how often exposure occurs. Such assumptions include location, accessibility, and use of an area. With this in mind, the receptor, or person who may potentially be exposed, and the location of exposure, were both defined for this risk characterization. The locations where certain activities were assumed to take place have been purposely selected because chemical concentrations and frequency of exposure are expected to be high (i.e., use of the maximally affected areas). However, actual frequencies of exposure are likely to be much lower than assumed. For example, it was assumed that a trespasser would be at the Site two days per week for 30 weeks of the year, when they would likely be at a variety of other locations and not consistently present at the Site on a consistent basis.

2.6.3 DOSE-RESPONSE ASSESSMENT

Dose-response values are often based on limited toxicological data. For this reason, a margin of safety is built into estimates of both carcinogenic and noncarcinogenic risk, and actual risks may be lower than those estimated.

Human dose-response values are often extrapolated, or conservatively estimated, using the results of animal studies. Extrapolation from animals to humans introduces a great deal of uncertainty in the risk assessment because in most instances, it is not known how differently a human may react to the chemical compared to the animal species used to test the compound. The procedures used to extrapolate from animals to humans involve conservative assumptions and incorporate several uncertainty factors (explicit factors for species extrapolation, and possible sensitive populations in the case of the RfD) that are more likely to over-estimate than under-estimate the no-effect dose in humans. The use of toxicity values for surrogate compounds to represent the toxicity of certain COC that are without published toxicity values is also a source of potential uncertainty. In addition, the Risk Assessment Shortforms have been used for many of the risk calculations in this HHRC, and the toxicity values in those Shortforms were last updated by MassDEP in March 2015. Therefore, any toxicity values that have been updated since that time are not reflected in the Risk Assessment Shortforms, for example, for polycyclic aromatic hydrocarbons (PAHs) for cancer toxicity. Another example is hexavalent chromium, which is not identified as a carcinogen via the oral route of exposure in MassDEP's Shortform documentation. CalEPA (OEHHA) has derived an oral cancer slope factor for hexavalent chromium that is therefore not used herein. Differences between the toxicity information in the Shortforms and changes that may have occurred to toxicity values represent a source of uncertainty in this HHRC.

2.6.4 RISK CHARACTERIZATION

The risk of adverse human health effects depends on estimated levels of exposure and on dose-response relationships. Once exposure to, and risk from, each of the selected compounds is calculated, the total risk posed by exposure to soil is determined by

combining the health risk contributed by each compound. Where COC do not interact, do not affect the same target organ or do not have the same mechanism of action, summing the risks for multiple COC results in an over-estimate of risk posed by the Disposal Site. However, in order not to understate the risk, it is assumed that the effects of different compounds are cumulative. While there does exist the theoretical possibility of greater than additive effects (synergism) among compounds with effects on the same target organ, overall, the application of the assumption of additivity is expected to conservatively estimate health risks.

2.7 HUMAN HEALTH RISK CHARACTERIZATION CONCLUSIONS

A Method 3 human health risk characterization for the Disposal Site associated with the Conductorlab property at 430 Main Street in Groton, Massachusetts was completed in accordance with the requirements of 310 CMR 40.0000 Subpart I of the MCP. Data from site assessment activities, as well as information from other sources (e.g., MassDEP and USEPA guidance documents) were used to conduct the risk characterization. The conclusions of the HHRC are presented below.

Current Land Use, Activities, and Conditions

The exposure scenarios evaluated under current conditions, where the on-property portion of the Site is vacant and unused, are an on- and off-property trespasser, on- and off-property emergency utility worker, and off-property nearby resident. Noncancer and cancer risks are below MassDEP risk limits for each of these receptors and the associated exposure pathways. Based on an acute risk evaluation, there is also a condition of No Significant Risk to an emergency utility worker who may be present at the Site for a short duration (less than a week).

There are concentrations of OHM in groundwater that are above GW-2 Standards at the Site (see Figures 6A and 6B of the PSS). For the current residential properties that are located within the boundaries of the Disposal Site, site investigations have demonstrated that a potential vapor intrusion pathway is not complete.

Potential Future Land Use, Activities, and Conditions

The exposure scenarios evaluated under future conditions are an on-property commercial worker, on- and off-property construction worker, and on- and off-property utility worker (for planned non-emergency utility work). The complete exposure pathways for these receptors are for exposure to soil and groundwater.

Noncancer and cancer risks are below MassDEP risk limits for each of these receptors and the associated exposure pathways.

There are concentrations of OHM in groundwater that are above GW-2 Standards at the Site (see Figures 6A and 6B of the PSS). For the portions of the 436 Main Street and the 418 Main Street properties, and for parcels I-57 and I-60B, the GW-2 category does not currently apply because there are not occupied buildings present within those areas. To account for the potential that one or more occupied buildings may be constructed in these specific areas where groundwater concentrations are above GW-2 standards, the PSS includes a condition pursuant to 310 CMR 40.1013(1)(d) that an evaluation of a potential vapor intrusion pathway be conducted prior to the construction of future occupied buildings to show that this pathway is consistent with a condition of No Significant Risk. If a condition of No Significant Risk cannot be demonstrated, then mitigation measures may be necessary. For the on-property portion of the Disposal Site, the AUL that is being implemented for a portion of this parcel also includes the requirement to conduct an evaluation of a potential vapor intrusion pathway prior to the construction of an occupied building, and to implement protective measures should they be deemed to be necessary.

Hypothetical Future Land Use, Activities, and Conditions (Residential)

Residences are located within the off-property portion of the Disposal Site. However, the only potentially complete exposure pathway for an off-property resident is for direct contact with surface water and sediment, which is evaluated as a current exposure scenario and is consistent with a condition of No Significant Risk. Other potential exposure pathways for an off-property resident are incomplete.

Hypothetical future uses of the on-property portion of the Disposal Site for receptors other than commercial workers were not evaluated in this Method 3 risk assessment. Accordingly, an AUL is being implemented at the Conductorlab property to restrict use of the property for single-family and multi-family residential use; use of the Property for an elementary or secondary school, kindergarten, preschool, or daycare; active recreational use such as playing fields or a playground; and use for cultivation of plants such as fruits or vegetables for human consumption, and other agricultural uses.

3.0 PUBLIC WELFARE AND ENVIRONMENT

Risk to public welfare and to the environment under both current and future conditions was assessed by comparison of soil and groundwater concentrations to soil and groundwater Upper Concentration Limits (UCLs) per 310 CMR 40.0995(5) and 40.0996(3). In addition, a Stage II Environmental Risk Characterization has been conducted pursuant to 310 CMR 40.0995 and is provided in **Appendix D** of the PSS.

3.1 PUBLIC WELFARE

With respect to risk of harm to public welfare, the MCP at 310CMR 40.0994(4) states that:

A level of no significant risk of harm to public welfare exists or has been achieved if:

(a) No nuisance conditions exist or will result from the release or threat of release of oil or hazardous material, or the remedial alternative, including:

1. The breathing zone of ambient and indoor air are currently and will, in the reasonably foreseeable future, remain free from persistent, noxious odors,

2. There is accessible drinking water that is and will, in the reasonably foreseeable future, remain free from noxious taste and odors; and

3. Livestock is and will remain, in the reasonably foreseeable future, free from harmful effects. No specific evaluation of livestock is required if it is reasonable to conclude that the human health and environmental risk characterizations conducted for the site are also protective of livestock exposures.

(b) No community that is currently affected and/or community for which it is reasonably foreseeable to conclude that it could be affected by the release

experiences significant adverse impacts as set forth as the factors to be considered in 310 CMR 40.0994(2); and

(c) The requirements of 310 CMR 40.0996 concerning the Upper Concentration Limits are met.

The conditions identified in (a) and (b) above have been met. Consistent with item (c) above, average soil (all depths) and groundwater concentrations for COC at the Disposal Site were compared to applicable UCLs. The concentrations used in the UCL comparisons and the comparison to UCLs are presented in **Table 26**. As noted previously, a comparison is also provided for data representative of bedrock groundwater at the Site. All representative COC concentrations in soil and groundwater are below corresponding soil and groundwater UCLs. Therefore, a condition of No Significant Risk to public welfare and to the environment in the future exists at the Site.

3.2 ENVIRONMENT

A Stage II ERC has been performed for the Site (see **Appendix D** of the PSS), and has concluded that in accordance with 310 CMR 40.0995(4)(e), a condition of No Significant Risk of harm to the environment exists for the Disposal Site, for the following reasons:

- There is no physical evidence of a continuing release of oil and/or hazardous material at or from the disposal site to surface waters and wetlands which significantly affects Environmental Receptors.
- There is no evidence of biologically significant harm (at the subpopulation, community, or system-wide level) known or believed to be associated with current or foreseeable future exposure of wildlife, fish, shellfish or other aquatic biota to oil and/or hazardous material at or from the disposal site.
- Concentrations of total chromium in surface water are less than the Massachusetts SWQs for trivalent chromium promulgated at 314 CMR 4.00.

- While concentrations of hexavalent chromium in surface water at three locations are greater than the Massachusetts SWQS promulgated at 314 CMR 4.00, site-specific toxicity tests suggest that the standard is overly conservative for site conditions:
  - Two rounds of toxicity tests indicate that a LOEC of 90 ug/L is protective of the aquatic community. The four most recent quarterly rounds of surface water sampling have determined that hexavalent chromium in surface water at the Site, including location CSW-3 and CSW-3A which historically had the highest concentrations, now perennially occur below this LOEC, and below a Site-specific NOEC of 60 ug/L for most of the year.
  - Observations of pollution sensitive aquatic receptors present in the unnamed stream indicate an unimpaired aquatic community.
- There is no indication of the potential for biologically significant harm (at the subpopulation, community, or system-wide level), either currently or for any foreseeable period of time, to Environmental Receptors considering their potential exposures to oil and/or hazardous material and the toxicity of the OHM.

4.0 SAFETY

Risk to safety was evaluated per 310 CMR 40.0960. A level of No Significant Risk to safety exists if the conditions at the Disposal Site related to a release do not currently and will not in the future pose a threat of physical harm or bodily injury to people. There are no containers, pits, lagoons, or dangerous structures within the Disposal Site nor any materials which pose a threat of fire or explosion or characteristic corrosivity, reactivity, or flammability. Therefore, this risk characterization concludes that a condition of No Significant Risk to safety exists at the Disposal Site.

5.0 CONCLUSIONS

A Method 3 risk characterization was performed to evaluate risk to human health, public welfare, the environment, and safety associated with contaminants of concern present in soil, groundwater, surface water and sediment air at the Conductorlab Disposal Site at 430 Main Street in Groton, Massachusetts (RTN 2-0000053).

A condition of No Significant Risk to human health exists for the exposure scenarios evaluated under current conditions, where the on-property portion of the Site is vacant and unused, which are an on- and off-property trespasser, on- and off-property emergency utility worker, and off-property resident.

A condition of No Significant Risk to human health for exposure to soil and groundwater at the Site exists for exposure scenarios evaluated under future conditions, which are an on-property commercial worker, on- and off-property construction worker, and on- and off-property utility worker (for planned non-emergency utility work).

There are concentrations of OHM in groundwater that are above GW-2 Standards at the Site (see Figures 6A and 6B of the PSS). For the portions of the 436 Main Street and the 418 Main Street properties, and for parcels I-57 and I-60B, the GW-2 category does not currently apply because there are not occupied buildings present within those areas. To account for the potential that one or more occupied buildings may be constructed in these specific areas where groundwater concentrations are above GW-2 standards, the PSS includes a condition pursuant to 310 CMR 40.1013(1)(d) that an evaluation of a potential vapor intrusion pathway be conducted prior to the construction of future occupied buildings to show that this pathway is consistent with a condition of No Significant Risk. If a condition of No Significant Risk cannot be demonstrated, then mitigation measures may be necessary. For the on-property portion of the Disposal Site, the AUL that is being implemented for a portion of this parcel also includes the requirement to conduct an evaluation of a potential vapor

intrusion pathway prior to the construction of an occupied building, and to implement protective measures should they be deemed to be necessary.

For other future activities and uses of the Conductorlab property, a condition of No Significant Risk to human health will be achieved once an AUL is implemented that prohibits use of the property for single-family and multi-family residential use; use of the property for an elementary or secondary school, kindergarten, preschool, or daycare; active recreational use such as playing fields or a playground; and use for cultivation of plants such as fruits or vegetables for human consumption, and other agricultural uses.

For the off-property portion of the Site, the potentially complete exposure pathways for current, future, and hypothetical future uses have been evaluated and are either incomplete or are associated with a condition of No Significant Risk. Therefore, a condition of No Significant Risk exists for off-property portion of the Disposal Site.

A condition of No Significant Risk to public welfare and the environment exists for the Disposal Site. Soil and groundwater concentrations are below corresponding Upper Concentration Limits (UCLs).

A Stage II ERC has concluded that a condition of No Significant Risk exists for the environment for the Disposal Site.

In addition, a condition of No Significant Risk to safety exists for the Disposal Site.

In summary, current and future foreseeable conditions at the Conductorlab Site are consistent with a condition of No Significant Risk to public welfare, safety, and the environment. A condition of No Significant Risk to human health will be achieved with the implementation of an AUL at the Conductorlab property to restrict other uses of the property that have not been evaluated herein and require the evaluation of a potential vapor intrusion pathway for any future occupied buildings. In addition, a potential vapor intrusion pathway must be evaluated and shown to be consistent with a condition of No Significant Risk should any future occupied buildings be

constructed in the portions of the 436 Main Street and, 418 Main Street properties, and parcels I-57 and I-60B, where groundwater concentrations are above GW-2 standards. If a condition of No Significant Risk cannot be demonstrated, then mitigation measures may be necessary.

6.0 REFERENCES

HMM Associates, Inc., 1988. Phase II Site Investigation, Conductorlab, Groton, Massachusetts. March.

HMM Associates, Inc., 1993. Phase II Risk Assessment, Conductorlab, Groton, Massachusetts. July.

Honeywell, 2015. Letter in response to Notice of Audit Findings and Notice of Noncompliance. Former Conductorlab Facility, 436 Main Street, Groton, Massachusetts. July 22.

Massachusetts Department of Environmental Protection (MassDEP), 1995. Guidance for Disposal Site Risk Characterization - In Support of the Massachusetts Contingency Plan. Interim Final Policy. WSC/ORS-95-141. July 1995.

MassDEP. 1996. Guidance for Disposal Site Risk Characterization. Chapter 9: Method 3 Environmental Risk Characterization. Interim Final Policy BWSC/ORS-95-141. April 1996.

MassDEP, 2002. Technical Update, Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil. Office of Research and Standards. May 2002.

MassDEP, 2008. Technical Update, Characterization of Risks Due to Inhalation of Particulates by Construction Workers. Office of Research and Standards. Revised. July 2008.

MassDEP, 2014a. Bureau of Waste Site Cleanup, Massachusetts Contingency Plan, 310 CMR 40.0000, April 2014.

MassDEP. 2014b. MCP Numerical Standards Development Spreadsheets: Identification of Surface Water Benchmark Used as GW-3 Target Values. Available at: https://www.mass.gov/lists/risk-assessment-information.

MassDEP, 2015. MassDEP Risk Assessment Shortforms, updated March 2015.

MassDEP, 2016. Historic Fill / Anthropogenic Background Public Comment DRAFT Technical Update Version 1.0 - May 24, 2016.

U.S. Environmental Protection Agency (USEPA), 1989. Risk Assessment Guidance for Superfund. Volume I: Human Health Evaluation Manual. Part A. Interim Final. Office of Emergency and Remedial Response.

USEPA, 2004. Risk Assessment Guidance for Superfund, Volume 1, Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment, Interim). Office of Emergency and Remedial Response. EPA/540/R/99/005. Washington, D.C.

USEPA, 2005. Revised Cancer Guidelines and the Supplemental Guidance. EPA/630/P-03/001B. March 2005.

USEPA, 2011. Exposure Factors Handbook 2011 Edition (Final). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-09052F.

USEPA, 2014. Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors. OSWER Directive 9200.1-120. February 6, 2014.

USEPA, 2022a. Integrated Risk Information System (IRIS). Environmental Criteria and Assessment Office, Cincinnati, OH. www.epa.gov/iris

USEPA, 2022b. Provisional Peer-Reviewed Toxicity Value (PPRTV) Assessments Electronic Library. Office of Superfund Remediation and Technology Innovation, Washington, DC. https://hhpprtv.ornl.gov/

Virginia Department of Environmental Quality (VDEQ). 2016. Virginia Unified Risk Assessment Model – VURAM User's Guide For Risk Assessors.

WSP, 2023. Permanent Solution Statement with Conditions. Conductorlab Site, 430 Main Street, Groton, Massachusetts. Release Tracking Number (RTN) 2-0000053. April 2023.

TABLES

Table 1	Summary of Potential Current and Future Exposure Scenarios and Exposure Media for Human Health Receptors
Table 2	Summary Statistics: Surface Soil (0-3 ft)
Table 3	Summary Statistics: Subsurface Soil (3-15 ft)
Table 4	Summary Statistics: Combined Soil (0-15 ft)
Table 5	Summary Statistics: Soil (all depths)
Table 6	Comparison of Soil Data to MassDEP Background Levels
Table 7	Summary Statistics: Groundwater
Table 8	Summary Statistics: Groundwater, on-property <15 ft
Table 9	Summary Statistics: Groundwater, off-property <15 ft
Table 10	Summary Statistics: Surface Water
Table 11	Summary Statistics: Sediment
Table 12	Summary of Oil or Hazardous Materials of Potential Concern by Media and Area
Table 13	Exposure Assumption Values Used for Daily Intake Calculation: Soil
Table 14	Exposure Assumption Values Used for Daily Intake Calculation: Groundwater and Excavation Air
Table 15	Exposure Assumption Values Used for Daily Intake Calculation: Surface Water and Sediment
Table 16	Hot Spot Evaluation: Soil
Table 17	Exposure Point Concentrations: Surface Soil (0-3 ft)
Table 18	Exposure Point Concentrations: Subsurface Soil (3-15 ft)
Table 19	Exposure Point Concentrations: Combined Soil (0-15 ft)
Table 20	Exposure Point Concentrations: Groundwater and Excavation Air
Table 21	Exposure Point Concentrations: Surface Water and Sediment
Table 22	Dose Response Data for Carcinogens
Table 23	Dose Response Data for Non-Cancer
Table 24	Relative Absorption Factors
Table 25	Summary of Cancer and Non-Cancer Risks - All Media
Table 26	Comparison of Soil and Groundwater Data to Upper Concentration Limits (UCLs)

Table 1
Summary of Potential Current and Future Exposure Scenarios and Exposure Media for Human Health Receptors
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Receptor	Exposure Points [(a)]	Exposure Media: / Exposure Pathway: / Media	Soil		Groundwater		Surface Water	Sediment	Indoor Air
			Incidental Ingestion and Dermal Contact	Inhalation of Particulates	Ingestion and Dermal Contact	Inhalation of Volatiles in an excavation	Incidental Ingestion and Dermal Contact	Incidental Ingestion and Dermal Contact	Inhalation of Volatiles
Current Emergency Utility Worker	On-Property	Combined Surface and Subsurface Soil (0-6 ft)	Q (Acute)	Q (Acute)					
		Groundwater			Q (Acute)	Q (Acute)			
	Off-Property	Groundwater			Q (Acute)	Q (Acute)			
Current Trespasser	On-Property	Surface Soil (0-3 ft)	X						
	Off-Property	Surface Water, and Sediment					X	X	
Resident	Off-Property	Surface Water and Sediment					X	X	see note (c)
Future Trespasser	On-Property	Subsurface Soil (3-15 ft)	X						
Future Commercial Worker	On-Property	Surface Soil (0-3 ft) and Subsurface Soil (3-15 ft)	X	X					see note (d)
Future Construction Worker	On-Property	Combined Surface and Subsurface Soil (0-15 ft)	X	X					
		Groundwater			X	X			
	Off-Property	Groundwater			X	X			
Future Utility Worker [(b)]	On-Property	Combined Surface and Subsurface Soil (0-6 ft)	Q	Q					
		Groundwater			Q	Q			
	Off-Property	Groundwater			Q	Q			

Prepared by: JPK 9/4/2020
Checked by: CF 9/9/2020

Notes:

X: Indicates pathway(s) associated with this receptor and medium are potentially complete and will be quantitatively evaluated.

Q: Indicates pathway(s) associated with this receptor will be qualitatively evaluated.

(a): On-Property refers to the property at 430 Main Street; Off-Property refers to the remainder of the Disposal Site outside of 430 Main Street.

(b): The construction worker is exposed to the same exposure pathways at a higher level of intensity, and therefore is considered a surrogate for the utility worker exposure.

(c) Previous investigations of a potential vapor intrusion at off-property residences have demonstrated that this pathway is not complete (HMM Associates, Inc., 1993).

(d) There is not a potential complete exposure pathway for vapor intrusion on-property because there are no buildings present, and no buildings are planned to be constructed. The PSS to which this HHRC is appended also includes a “condition” that construction of any future buildings at the property include a vapor intrusion evaluation to consider the need for vapor intrusion mitigation measures, pursuant to 310 CMR 40.1013(1)(d).

Table 2
Summary Statistics: Surface Soil (0-3 ft)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Chemical (a)	CASRN	Frequency of Detection		Units	Minimum Detected Value	Average (b)	Maximum Detected Value	Location of Maximum Detected Value	Minimum SQL (c)	Maximum SQL (c)	MCP S-2/GW-3 Standard	# Detections above S-2/GW-3 Standard
VOCs	1,1,1-Trichloroethane	71-55-6	1	37	mg/Kg	0.0090	0.017	0.0090	C022707-AB1	0.0017	0.29	1000	0
VOCs	1,2,4-Trimethylbenzene	95-63-6	1	37	mg/Kg	0.0015	0.017	0.0015	C022707-AB1	0.0017	0.29	NA	NA
VOCs	2-Chlorotoluene	95-49-8	1	37	mg/Kg	0.00062	0.017	0.00062	C022707-AB1	0.0017	0.29	NA	NA
VOCs	Acetone	67-64-1	6	32	mg/Kg	0.0053	0.14	0.16	C022707-CS1	0.045	1.2	400	0
VOCs	Carbon disulfide	75-15-0	1	32	mg/Kg	0.0055	0.028	0.0055	C022707-AB1	0.0018	0.29	NA	NA
VOCs	cis-1,2-Dichloroethene	156-59-2	2	37	mg/Kg	0.0074	0.018	0.034	C062304-B39-2-2.9	0.0013	0.29	500	0
VOCs	Ethylbenzene	100-41-4	2	37	mg/Kg	0.0017	0.017	0.0037	C101404-B84-S2	0.0017	0.29	1000	0
VOCs	m&p-Xylenes	NA	7	32	mg/Kg	0.0022	0.020	0.013	C101404-B84-S2	0.0017	0.29	1000	0
VOCs	Methylene Chloride	75-09-2	1	37	mg/Kg	0.0087	0.0086	0.0087	C022707-AB1	0.0035	0.12	700	0
VOCs	o-Xylene	95-47-6	3	32	mg/Kg	0.0015	0.019	0.0036	C100504-B57-S2	0.0017	0.29	1000	0
VOCs	Tetrachloroethene	127-18-4	2	37	mg/Kg	0.0060	0.018	0.026	C062304-B39-2-2.9	0.0017	0.29	200	0
VOCs	Toluene	108-88-3	2	37	mg/Kg	0.00040	0.017	0.0004	C110617-02 SOIL-0-1, C110617-04 SOIL-0-1	0.0013	0.29	1000	0
VOCs	Trichloroethene	79-01-6	11	37	mg/Kg	0.0013	0.020	0.057	C022707-AB1	0.0017	0.29	60	0
SVOCs	2-Methylnaphthalene	91-57-6	1	8	mg/Kg	0.87	0.30	0.87	C062204-B26-2-4	0.18	1.8	500	0
SVOCs	Acenaphthene	83-32-9	1	8	mg/Kg	0.73	0.28	0.73	C062204-B26-2-4	0.18	1.8	3000	0
SVOCs	Acenaphthylene	208-96-8	1	8	mg/Kg	0.15	0.21	0.15	C062204-B26-2-4	0.18	1.8	10	0
SVOCs	Anthracene	120-12-7	1	8	mg/Kg	0.45	0.25	0.45	C062204-B26-2-4	0.18	1.8	3000	0
SVOCs	Benzo[a]anthracene	56-55-3	1	8	mg/Kg	0.36	0.24	0.36	C062204-B26-2-4	0.18	1.8	40	0
SVOCs	Benzo[a]pyrene	50-32-8	1	8	mg/Kg	0.23	0.22	0.23	C062204-B26-2-4	0.18	1.8	7	0
SVOCs	Benzo[b]fluoranthene	205-99-2	1	8	mg/Kg	0.13	0.21	0.13	C062204-B26-2-4	0.18	1.8	40	0
SVOCs	Benzo[g,h,i]perylene	191-24-2	1	8	mg/Kg	0.093	0.20	0.093	C062204-B26-2-4	0.18	1.8	3000	0
SVOCs	Benzo[k]fluoranthene	207-08-9	1	8	mg/Kg	0.16	0.21	0.16	C062204-B26-2-4	0.18	1.8	400	0
SVOCs	Chrysene	218-01-9	1	8	mg/Kg	0.30	0.23	0.3	C062204-B26-2-4	0.18	1.8	400	0
SVOCs	Fluoranthene	206-44-0	2	8	mg/Kg	0.15	0.27	0.55	C062204-B26-2-4	0.18	1.8	3000	0
SVOCs	Fluorene	86-73-7	1	8	mg/Kg	0.52	0.26	0.52	C062204-B26-2-4	0.18	1.8	3000	0
SVOCs	Naphthalene	91-20-3	1	8	mg/Kg	1.2	0.34	1.2	C062204-B26-2-4	0.18	1.8	1000	0
SVOCs	Phenanthrene	85-01-8	1	8	mg/Kg	1.4	0.37	1.4	C062204-B26-2-4	0.18	1.8	1000	0
SVOCs	Pyrene	129-00-0	2	8	mg/Kg	0.18	0.31	0.86	C062204-B26-2-4	0.18	1.8	3000	0
EPH	Benzo[a]anthracene	56-55-3	3	30	mg/Kg	0.45	0.25	1	C022707-AS3	0.36	0.66	40	0
EPH	Benzo[a]pyrene	50-32-8	2	30	mg/Kg	0.58	0.22	0.64	B206 s1	0.35	0.66	7	0
EPH	Benzo[b]fluoranthene	205-99-2	6	30	mg/Kg	0.70	0.35	1.5	B208 s1 RE	0.35	0.66	40	0
EPH	Benzo[k]fluoranthene	207-08-9	2	30	mg/Kg	0.64	0.24	1.1	B206 s1	0.35	0.66	400	0
EPH	C11-C22 Aromatics	NA	20	36	mg/Kg	3.9	8.6	58	C022707-AB1	3.5	4	3000	0
EPH	C19-C36 Aliphatics	NA	23	37	mg/Kg	3.8	6.4	30	C022707-AB1	3.5	4	5000	0
EPH	C9-C18 Aliphatics	NA	3	37	mg/Kg	11	4.2	52	C022707-AB1	3.5	6.6	3000	0
EPH	Chrysene	218-01-9	3	30	mg/Kg	0.46	0.26	1.1	C022707-AS3	0.36	0.66	400	0
EPH	Fluoranthene	206-44-0	4	30	mg/Kg	0.38	0.32	1.7	B206 s1	0.36	0.66	3000	0
EPH	Naphthalene	91-20-3	1	30	mg/Kg	0.93	0.22	0.93	B207 s1	0.35	0.66	1000	0

Table 2
Summary Statistics: Surface Soil (0-3 ft)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Chemical (a)	CASRN	Frequency of Detection		Units	Minimum Detected Value	Average (b)	Maximum Detected Value	Location of Maximum Detected Value	Minimum SQL (c)	Maximum SQL (c)	MCP S-2/GW-3 Standard	# Detections above S-2/GW-3 Standard
EPH	Phenanthrene	85-01-8	3	30	mg/Kg	0.53	0.24	0.82	C022707-AS3	0.36	0.66	1000	0
EPH	Pyrene	129-00-0	4	30	mg/Kg	0.40	0.33	2.1	B206 s1	0.36	0.66	3000	0
Metals	Aluminum	7429-90-5	49	49	mg/Kg	7940	16253	52000	C062304-B36A-0.4-2.1			NA	NA
Metals	Antimony	7440-36-0	26	70	mg/Kg	0.23	1.4	9.1	C022707-AB1	1.1	6.94	30	0
Metals	Arsenic	7440-38-2	75	75	mg/Kg	2.8	38	130	C062304-B36A-0.4-2.1, C101504-B90-S2			20	59
Metals	Barium	7440-39-3	54	54	mg/Kg	12	67	290	C062304-B36A-0.4-2.1			3000	0
Metals	Beryllium	7440-41-7	36	70	mg/Kg	0.03	0.37	0.81	B203 s1	0.11	4.5	200	0
Metals	Cadmium	7440-43-9	21	54	mg/Kg	0.20	0.41	1.67	B11(0-2)	0.12	0.63	100	0
Metals	Calcium	7440-70-2	49	49	mg/Kg	620	3182	20000	C062304-B36A-0.4-2.1			NA	NA
Metals	Chromium	7440-47-3	115	122	mg/kg	22	175	2310	B200 s1	75	145	3000	0
Metals	Cobalt	7440-48-4	49	49	mg/Kg	4.8	10	35	C042407-B234			NA	NA
Metals	Copper	7440-50-8	75	75	mg/Kg	7.4	114	990	C022707-AB1			NA	NA
Metals	Hexavalent Chromium	18540-29-9	59	88	mg/kg	0.20	6.6	140	C022707-AB1	0.21	8	200	0
Metals	Iron	7439-89-6	49	49	mg/Kg	11000	22147	70000	C042407-B234			NA	NA
Metals	Lead	7439-92-1	75	75	mg/Kg	4.4	55	1800	C022707-AB1			600	1
Metals	Magnesium	7439-95-4	49	49	mg/Kg	2900	8799	32000	C042407-B234			NA	NA
Metals	Manganese	7439-96-5	49	49	mg/Kg	130	310	1100	C062304-B36A-0.4-2.1			NA	NA
Metals	Mercury	7439-97-6	30	49	mg/Kg	0.0098	0.062	0.34	B206 s1	0.036	0.13	30	0
Metals	Nickel	7440-02-0	54	54	mg/Kg	12	36	110	C022707-AB2, C022707-AS2, C042407-B234			1000	0
Metals	Potassium	7440-09-7	49	49	mg/Kg	450	3876	28000	C042407-B234			NA	NA
Metals	Selenium	7782-49-2	14	49	mg/Kg	0.33	0.73	0.94	B208 s1	0.54	11	700	0
Metals	Silver	7440-22-4	27	54	mg/Kg	0.036	1.4	18	C022707-AB1	0.5	11	200	0
Metals	Sodium	7440-23-5	35	49	mg/Kg	17.3	234	4100	C062304-B36A-0.4-2.1	34	603	NA	NA
Metals	Thallium	7440-28-0	6	49	mg/Kg	0.25	1.3	1.1	B200 s1	0.58	23	60	0
Metals	Vanadium	7440-62-2	49	49	mg/Kg	15.5	38	180	C062304-B36A-0.4-2.1			700	0
Metals	Zinc	7440-66-6	49	49	mg/Kg	22	59	554	B206 s1			3000	0

Notes:
mg/kg - milligrams per kilogram
NA - not available/applicable
SQL - sample quantitation limit
(a) Includes all compounds detected at least once. Compounds never detected are not shown. This table summarizes the data for soil from 0-3 ft collected at the Conductorlab site.
(b) Average is calculated as the average of detected concentrations and one-half the reporting limit for non-detect results.
(c) Sample quantitation limits are not shown for compounds that were detected in 100 percent of samples.

Prepared by: ARQ 8/31/2020
Checked by: CF 9/16/2020

Table 3
Summary Statistics: Subsurface Soil (3-15 ft)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Chemical (a)	CASRN	Frequency of Detection		Units	Minimum Detected Value	Average (b)	Maximum Detected Value	Location of Maximum Detected Value	Minimum SQL (c)	Maximum SQL (c)	S-3/GW-3 Standard	# Detections above S-3/GW-3 Standard
VOCs	1,1,1-Trichloroethane	71-55-6	3	129	mg/Kg	0.39	0.058	1.4	C042407-B233 S4	0.0014	0.61	3000	0
VOCs	1,2,4-Trimethylbenzene	95-63-6	6	129	mg/Kg	0.066	0.049	0.65	C022307-PRA1B3	0.0014	0.61	NA	NA
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	2	129	mg/Kg	0.12	0.042	0.13	C022307-PRA1B1	0.0014	0.61	NA	NA
VOCs	1,3,5-Trimethylbenzene	108-67-8	6	129	mg/Kg	0.052	0.045	0.42	C022307-PRA1B3	0.0014	0.61	NA	NA
VOCs	1,4-Dichlorobenzene	106-46-7	1	129	mg/Kg	0.0064	0.041	0.0064	C062204-B21B-8-10	0.0014	0.61	2000	0
VOCs	Acetone	67-64-1	1	129	mg/Kg	0.17	1.1	0.17	C022607-BS1	0.028	26	400	0
VOCs	Carbon disulfide	75-15-0	1	129	mg/Kg	0.012	0.14	0.012	C062204-B33-6-8	0.0018	12	NA	NA
VOCs	cis-1,2-Dichloroethene	156-59-2	17	129	mg/Kg	0.0011	0.085	4.3	C042407-B233 S3	0.0014	0.61	500	0
VOCs	Ethylbenzene	100-41-4	20	129	mg/Kg	0.0061	8.3	470	C022307-PRA1B3	0.0014	0.61	3000	0
VOCs	Isopropylbenzene	98-82-8	7	129	mg/Kg	0.12	0.11	4.7	C022307-PRA1B3	0.0014	0.61	NA	NA
VOCs	m&p-Xylenes	NA	28	129	mg/Kg	0.0012	37	1800	C022307-PRA1B3	0.0014	0.61	3000	0
VOCs	Naphthalene	91-20-3	2	129	mg/Kg	0.24	0.16	1.9	C022307-PRA1B3	0.014	6.1	3000	0
VOCs	n-Butylbenzene	104-51-8	2	129	mg/Kg	0.067	0.041	0.12	C022307-PRA1B3	0.0014	0.61	NA	NA
VOCs	N-Propylbenzene	103-65-1	7	129	mg/Kg	0.054	0.060	1.5	C022307-PRA1B3	0.0014	0.61	NA	NA
VOCs	o-Xylene	95-47-6	19	129	mg/Kg	0.0011	9.5	550	C022307-PRA1B3	0.0014	0.61	3000	0
VOCs	Tetrachloroethene	127-18-4	7	129	mg/Kg	0.0015	0.042	0.22	C022307-PRA1B3	0.0014	0.61	1000	0
VOCs	Toluene	108-88-3	15	129	mg/Kg	0.0027	2.4	130	C042407-B232 S1	0.0014	0.61	3000	0
VOCs	Trichloroethene	79-01-6	33	129	mg/Kg	0.001	0.42	23	C042407-B232 S1	0.0014	0.61	60	0
VOCs	Vinyl chloride	75-01-4	1	129	mg/Kg	0.086	0.054	0.086	C042407-B233 S3	0.0028	1.2	60	0
SVOCs	2-Methylnaphthalene	91-57-6	1	22	mg/Kg	2.4	0.21	2.4	C062204-B21B-8-10	0.17	0.38	500	0
SVOCs	Acenaphthene	83-32-9	1	22	mg/Kg	2.3	0.21	2.3	C062204-B21B-8-10	0.17	0.38	5000	0
SVOCs	Acenaphthylene	208-96-8	1	22	mg/Kg	0.5	0.12	0.5	C062204-B21B-8-10	0.17	0.38	10	0
SVOCs	Anthracene	120-12-7	1	22	mg/Kg	1.5	0.17	1.5	C062204-B21B-8-10	0.17	0.38	5000	0
SVOCs	Benzo[a]anthracene	56-55-3	1	22	mg/Kg	1.1	0.15	1.1	C062204-B21B-8-10	0.17	0.38	300	0
SVOCs	Benzo[a]pyrene	50-32-8	1	22	mg/Kg	0.75	0.14	0.75	C062204-B21B-8-10	0.17	0.38	30	0
SVOCs	Benzo[b]fluoranthene	205-99-2	1	22	mg/Kg	0.35	0.12	0.35	C062204-B21B-8-10	0.17	0.38	300	0
SVOCs	Benzo[g,h,i]perylene	191-24-2	1	22	mg/Kg	0.5	0.12	0.5	C062204-B21B-8-10	0.17	0.38	5000	0
SVOCs	Benzo[k]fluoranthene	207-08-9	1	22	mg/Kg	0.56	0.13	0.56	C062204-B21B-8-10	0.17	0.38	3000	0
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	4	16	mg/Kg	0.22	0.20	0.24	C062104-B20-4-6	0.36	0.38	2000	0
SVOCs	Chrysene	218-01-9	1	22	mg/Kg	0.95	0.14	0.95	C062204-B21B-8-10	0.17	0.38	3000	0
SVOCs	Dibenz(a,h)anthracene	53-70-3	1	22	mg/Kg	0.19	0.11	0.19	C062204-B21B-8-10	0.17	0.38	30	0
SVOCs	DIBENZOFURAN	132-64-9	1	16	mg/Kg	0.28	0.19	0.28	C062204-B21B-8-10	0.34	0.38	NA	NA
SVOCs	Fluoranthene	206-44-0	1	22	mg/Kg	1.8	0.18	1.8	C062204-B21B-8-10	0.17	0.38	5000	0
SVOCs	Fluorene	86-73-7	1	22	mg/Kg	1.4	0.16	1.4	C062204-B21B-8-10	0.17	0.38	5000	0
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	1	22	mg/Kg	0.35	0.12	0.35	C062204-B21B-8-10	0.17	0.38	300	0
SVOCs	Naphthalene	91-20-3	3	22	mg/Kg	0.22	0.25	2.9	C062204-B21B-8-10	0.18	0.38	3000	0
SVOCs	Phenanthrene	85-01-8	2	22	mg/Kg	0.19	0.33	4.9	C062204-B21B-8-10	0.17	0.38	3000	0
SVOCs	Pyrene	129-00-0	2	22	mg/Kg	0.15	0.23	2.8	C062204-B21B-8-10	0.17	0.38	5000	0

Table 3
Summary Statistics: Subsurface Soil (3-15 ft)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Chemical (a)	CASRN	Frequency of Detection		Units	Minimum Detected Value	Average (b)	Maximum Detected Value	Location of Maximum Detected Value	Minimum SQL (c)	Maximum SQL (c)	S-3/GW-3 Standard	# Detections above S-3/GW-3 Standard
EPH	Acenaphthene	83-32-9	1	96	mg/Kg	0.68	0.20	0.68	C022307-PRA1B2	0.34	1.1	5000	0
EPH	Anthracene	120-12-7	2	96	mg/Kg	0.53	0.21	1.3	C022307-PRA1B2	0.34	1.1	5000	0
EPH	Benzo[a]anthracene	56-55-3	4	96	mg/Kg	0.39	0.24	3.5	C022307-PRA1B2	0.34	1.1	300	0
EPH	Benzo[a]pyrene	50-32-8	3	96	mg/Kg	0.41	0.22	2.3	C022307-PRA1B2	0.34	1.1	30	0
EPH	Benzo[b]fluoranthene	205-99-2	4	96	mg/Kg	0.8	0.22	1.5	C022307-PRA1B2	0.34	1.1	300	0
EPH	Benzo[g,h,i]perylene	191-24-2	1	96	mg/Kg	1.2	0.20	1.2	C022307-PRA1B2	0.34	1.1	5000	0
EPH	Benzo[k]fluoranthene	207-08-9	2	96	mg/Kg	0.83	0.22	2.2	C022307-PRA1B2	0.34	1.1	3000	0
EPH	C11-C22 Aromatics	NA	31	106	mg/Kg	3.7	4.4	110	C022307-PRA1B2	3.4	11	5000	0
EPH	C19-C36 Aliphatics	NA	38	109	mg/Kg	3.8	4.6	40	B200 s2 RE	3.4	4.5	5000	0
EPH	C9-C18 Aliphatics	NA	12	109	mg/Kg	4	3.6	150	C022307-PRA1B2	3.4	4.5	5000	0
EPH	Chrysene	218-01-9	4	96	mg/Kg	0.41	0.24	3.7	C022307-PRA1B2	0.34	1.1	3000	0
EPH	Dibenz(a,h)anthracene	53-70-3	1	96	mg/Kg	0.79	0.20	0.79	C022307-PRA1B2	0.34	1.1	30	0
EPH	Fluoranthene	206-44-0	6	96	mg/Kg	0.27	0.29	5.6	C022307-PRA1B2	0.34	1.1	5000	0
EPH	Fluorene	86-73-7	1	96	mg/Kg	0.59	0.19	0.59	C022307-PRA1B2	0.34	1.1	5000	0
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	2	96	mg/Kg	0.39	0.20	0.98	C022307-PRA1B2	0.34	1.1	300	0
EPH	Naphthalene	91-20-3	1	96	mg/Kg	0.47	0.19	0.47	C022307-PRA1B2	0.34	1.1	3000	0
EPH	Phenanthrene	85-01-8	4	96	mg/Kg	0.39	0.25	4.2	C022307-PRA1B2	0.34	1.1	3000	0
EPH	Pyrene	129-00-0	5	96	mg/Kg	0.55	0.28	5.1	C022307-PRA1B2	0.34	1.1	5000	0
VPH	C9-C10 Aromatics	NA	2	9	mg/kg	32	87	740	C022307-PRA1B3	2.6	3.2	500	1
VPH	C9-C12 Aliphatics	NA	2	9	mg/kg	47	184	1600	C022307-PRA1B3	2.6	3.2	5000	0
VPH	Ethylbenzene	100-41-4	3	9	mg/Kg	2.6	79	680	C022307-PRA1B3	0.26	0.32	3000	0
VPH	m&p-Xylenes	NA	4	9	mg/Kg	0.77	361	3100	C022307-PRA1B3	0.51	0.64	3000	1
VPH	o-Xylene	95-47-6	2	9	mg/Kg	39	88	750	C022307-PRA1B3	0.26	0.32	3000	0
VPH	Toluene	108-88-3	2	9	mg/Kg	1.4	12	110	C022307-PRA1B3	0.26	0.32	3000	0
Metals	Aluminum	7429-90-5	130	130	mg/Kg	4730	13252	41000	C062204-B32-6-8			NA	NA
Metals	Antimony	7440-36-0	92	226	mg/Kg	0.26	2.1	39	C022607-BS1	1	6.94	30	1
Metals	Arsenic	7440-38-2	226	226	mg/Kg	5.8	40	190	C100604-B62-S3			50	46
Metals	Barium	7440-39-3	130	130	mg/Kg	17	65	330	C062204-B32-6-8			5000	0
Metals	Beryllium	7440-41-7	91	226	mg/Kg	0.007	0.33	0.7	B218s3	0.1	2	200	0
Metals	Cadmium	7440-43-9	43	130	mg/Kg	0.22	0.29	0.85	C022707-BB3	0.11	0.65	100	0
Metals	Calcium	7440-70-2	130	130	mg/Kg	724	2153	15000	C062204-B32-6-8			NA	0
Metals	Chromium	7440-47-3	312	331	mg/Kg	17	415	4600	C062204-B32-6-8	45	155	5000	0
Metals	Cobalt	7440-48-4	129	130	mg/Kg	3.7	9.5	22	C022707-BB3	5.62	5.62	NA	NA
Metals	Copper	7440-50-8	226	226	mg/Kg	8.3	231	2700	C062204-B32-4-6			NA	NA
Metals	Hexavalent Chromium	18540-29-9	224	250	mg/Kg	0.2	31	590	C052405-B92S2	0.16	4.52	200	9
Metals	Iron	7439-89-6	130	130	mg/Kg	8410	19549	61000	C062204-B32-6-8			NA	NA
Metals	Lead	7439-92-1	224	226	mg/Kg	2.6	35	1500	C100604-B59-S5	5.62	5.79	600	2
Metals	Magnesium	7439-95-4	130	130	mg/Kg	2310	7602	22000	C062204-B32-6-8			NA	0
Metals	Manganese	7439-96-5	130	130	mg/Kg	79	293	1000	C022207-EB1			NA	0

Table 3
Summary Statistics: Subsurface Soil (3-15 ft)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Chemical (a)	CASRN	Frequency of Detection		Units	Minimum Detected Value	Average (b)	Maximum Detected Value	Location of Maximum Detected Value	Minimum SQL (c)	Maximum SQL (c)	S-3/GW-3 Standard	# Detections above S-3/GW-3 Standard
Metals	Mercury	7439-97-6	29	130	mg/Kg	0.0088	0.040	0.39	C062204-B32-4-6	0.034	0.12	30	0
Metals	Nickel	7440-02-0	130	130	mg/Kg	16	39	210	C062204-B33-6-8			1000	0
Metals	Potassium	7440-09-7	130	130	mg/Kg	850	3209	15000	C062204-B32-6-8			NA	0
Metals	Selenium	7782-49-2	22	130	mg/Kg	0.3	0.78	0.64	B201 s2	0.52	3.7	700	0
Metals	Silver	7440-22-4	56	130	mg/Kg	0.034	3.4	72	C022607-BS1	0.52	3.4	200	0
Metals	Sodium	7440-23-5	87	130	mg/Kg	19.4	271	13000	C062204-B32-6-8	26	740	NA	0
Metals	Thallium	7440-28-0	24	130	mg/Kg	0.15	1.6	1.4	B202 s3	0.61	7.4	80	0
Metals	Vanadium	7440-62-2	130	130	mg/Kg	9.8	31	220	C062204-B32-6-8			700	0
Metals	Zinc	7440-66-6	130	130	mg/Kg	16.9	41	140	C062204-B25-4-6			5000	0

Notes:
mg/kg - milligrams per kilogram
NA - Not Applicable
SQL - sample quantitation limit
(a) Includes all compounds detected at least once. Compounds never detected are not shown. This table summarizes the data for soil from 3-15 ft collected at the Conductorlab site.
(b) Average is calculated as the average of detected concentrations and one-half the reporting limit for non-detect results.
(c) Sample quantitation limits are not shown for compounds that were detected in 100 percent of samples.

Prepared by: ARQ 8/31/2020
Checked by: CF 9/16/2020

Table 4
Summary Statistics: Combined Soil (0-15 ft)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Chemical (a)	CASRN	Frequency of Detection		Unit	Minimum Detected Value	Average (b)	Maximum Detected Value	Location of Maximum Detected Value	Minimum SQL (c)	Maximum SQL (c)	S-2/GW-3 Standard	# Detections above S-2/GW-3 Standard	S-3/GW-3 Standard	# Detections above S-3/GW-3 Standard
VOCs	1,1,1-Trichloroethane	71-55-6	4	166	mg/Kg	0.009	0.049	1.4	C042407-B233 S4	0.0014	0.61	1000	0	3000	0
VOCs	1,2,4-Trimethylbenzene	95-63-6	7	166	mg/Kg	0.0015	0.041	0.65	C022307-PRA1B3	0.0014	0.61	NA	NA	NA	NA
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	2	166	mg/Kg	0.12	0.037	0.13	C022307-PRA1B1	0.0013	0.61	NA	NA	NA	NA
VOCs	1,3,5-Trimethylbenzene	108-67-8	6	166	mg/Kg	0.052	0.038	0.42	C022307-PRA1B3	0.0013	0.61	NA	NA	NA	NA
VOCs	1,4-Dichlorobenzene	106-46-7	1	166	mg/Kg	0.0064	0.036	0.0064	C062204-B21B-8-10	0.0013	0.61	400	0	2000	0
VOCs	2-Chlorotoluene	95-49-8	1	166	mg/Kg	0.00062	0.035	0.00062	C022707-AB1	0.0014	0.61	NA	NA	NA	NA
VOCs	Acetone	67-64-1	7	161	mg/Kg	0.0053	0.93	0.17	C022607-BS1	0.028	26	400	0	400	0
VOCs	Carbon disulfide	75-15-0	2	161	mg/Kg	0.0055	0.12	0.012	C062204-B33-6-8	0.0018	12	NA	NA	NA	NA
VOCs	cis-1,2-Dichloroethene	156-59-2	19	166	mg/Kg	0.0011	0.070	4.3	C042407-B233 S3	0.0013	0.61	500	0	500	0
VOCs	Ethylbenzene	100-41-4	22	166	mg/Kg	0.0017	6.5	470	C022307-PRA1B3	0.0014	0.61	1000	0	3000	0
VOCs	Hexanal	0066-25-1	2	2	mg/Kg	0.033	0.049	0.065	C022707-CS1			NA	NA	NA	NA
VOCs	Isopropylbenzene	98-82-8	7	166	mg/Kg	0.12	0.088	4.7	C022307-PRA1B3	0.0013	0.61	NA	NA	NA	NA
VOCs	m&p-Xylenes	NA	35	161	mg/Kg	0.0012	29	1800	C022307-PRA1B3	0.0014	0.61	1000	0	3000	0
VOCs	Methylene Chloride	75-09-2	1	166	mg/Kg	0.0087	0.031	0.0087	C022707-AB1	0.0028	1.2	700	0	700	0
VOCs	Naphthalene	91-20-3	2	166	mg/Kg	0.24	0.13	1.9	C022307-PRA1B3	0.01	6.1	1000	0	3000	0
VOCs	n-Butylbenzene	104-51-8	2	166	mg/Kg	0.067	0.035	0.12	C022307-PRA1B3	0.0013	0.61	NA	NA	NA	NA
VOCs	N-Propylbenzene	103-65-1	7	166	mg/Kg	0.054	0.051	1.5	C022307-PRA1B3	0.0013	0.61	NA	NA	NA	NA
VOCs	o-Xylene	95-47-6	22	161	mg/Kg	0.0011	7.6	550	C022307-PRA1B3	0.0014	0.61	1000	0	3000	0
VOCs	Tetrachloroethene	127-18-4	9	166	mg/Kg	0.0015	0.036	0.22	C022307-PRA1B3	0.0014	0.61	200	0	1000	0
VOCs	Toluene	108-88-3	17	166	mg/Kg	0.0004	1.9	130	C042407-B232 S1	0.0013	0.61	1000	0	3000	0
VOCs	Trichloroethene	79-01-6	44	166	mg/Kg	0.001	0.33	23	C042407-B232 S1	0.0014	0.61	60	0	60	0
VOCs	Vinyl chloride	75-01-4	1	166	mg/Kg	0.086	0.046	0.086	C042407-B233 S3	0.0027	1.2	7	0	60	0
SVOCs	2-Methylnaphthalene	91-57-6	2	30	mg/Kg	0.87	0.23	2.4	C062204-B21B-8-10	0.17	1.8	500	0	500	0
SVOCs	Acenaphthene	83-32-9	2	30	mg/Kg	0.73	0.23	2.3	C062204-B21B-8-10	0.17	1.8	3000	0	5000	0
SVOCs	Acenaphthylene	208-96-8	2	30	mg/Kg	0.15	0.15	0.5	C062204-B21B-8-10	0.17	1.8	10	0	10	0
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	4	24	mg/Kg	0.22	0.26	0.24	C062104-B20-4-6	0.35	3.7	600	0	2000	0
SVOCs	DIBENZOFURAN	132-64-9	1	24	mg/Kg	0.28	0.26	0.28	C062204-B21B-8-10	0.34	3.7	NA	NA	NA	NA
SVOCs	Fluorene	86-73-7	2	30	mg/Kg	0.52	0.19	1.4	C062204-B21B-8-10	0.17	1.8	3000	0	5000	0
SVOCs	Naphthalene	91-20-3	4	30	mg/Kg	0.22	0.27	2.9	C062204-B21B-8-10	0.18	1.8	1000	0	3000	0
SVOCs	Phenanthrene	85-01-8	3	30	mg/Kg	0.19	0.34	4.9	C062204-B21B-8-10	0.17	1.8	1000	0	3000	0
EPH	Anthracene	120-12-7	2	126	mg/Kg	0.53	0.20	1.3	C022307-PRA1B2	0.34	1.1	3000	0	5000	0
EPH	Benzo[a]anthracene	56-55-3	7	126	mg/Kg	0.39	0.24	3.5	C022307-PRA1B2	0.34	1.1	40	0	300	0
EPH	Benzo[a]pyrene	50-32-8	5	126	mg/Kg	0.41	0.22	2.3	C022307-PRA1B2	0.34	1.1	7	0	30	0
EPH	Benzo[b]fluoranthene	205-99-2	10	126	mg/Kg	0.7	0.25	1.5	B208 s1 RE, C022307-PRA1B2	0.34	1.1	40	0	300	0
EPH	Benzo[g,h,i]perylene	191-24-2	1	126	mg/Kg	1.2	0.20	1.2	C022307-PRA1B2	0.34	1.1	3000	0	5000	0
EPH	Benzo[k]fluoranthene	207-08-9	4	126	mg/Kg	0.64	0.22	2.2	C022307-PRA1B2	0.34	1.1	400	0	3000	0
EPH	C11-C22 Aromatics	NA	51	142	mg/Kg	3.7	5.5	110	C022307-PRA1B2	3.4	11	5000	0	5000	0
EPH	C19-C36 Aliphatics	NA	61	146	mg/Kg	3.8	5.1	40	B200 s2 RE	3.4	4.5	5000	0	5000	0
EPH	C9-C18 Aliphatics	NA	15	146	mg/Kg	4	3.8	150	C022307-PRA1B2	3.4	6.6	5000	0	5000	0
EPH	Chrysene	218-01-9	7	126	mg/Kg	0.41	0.24	3.7	C022307-PRA1B2	0.34	1.1	400	0	3000	0
EPH	Dibenz(a,h)anthracene	53-70-3	1	126	mg/Kg	0.79	0.20	0.79	C022307-PRA1B2	0.34	1.1	4	0	30	0
EPH	Fluoranthene	206-44-0	10	126	mg/Kg	0.27	0.30	5.6	C022307-PRA1B2	0.34	1.1	3000	0	5000	0

Table 4
Summary Statistics: Combined Soil (0-15 ft)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Chemical (a)	CASRN	Frequency of Detection		Unit	Minimum Detected Value	Average (b)	Maximum Detected Value	Location of Maximum Detected Value	Minimum SQL (c)	Maximum SQL (c)	S-2/GW-3 Standard	# Detections above S-2/GW-3 Standard	S-3/GW-3 Standard	# Detections above S-3/GW-3 Standard
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	2	126	mg/Kg	0.39	0.20	0.98	C022307-PRA1B2	0.34	1.1	40	0	300	0
EPH	Pyrene	129-00-0	9	126	mg/Kg	0.4	0.29	5.1	C022307-PRA1B2	0.34	1.1	3000	0	5000	0
VPH	C9-C10 Aromatics	NA	2	9	mg/kg	32	87	740	C022307-PRA1B3	2.6	3.2	500	0	500	0
VPH	C9-C12 Aliphatics	NA	2	9	mg/kg	47	184	1600	C022307-PRA1B3	2.6	3.2	500	0	5000	0
VPH	Ethylbenzene	100-41-4	3	9	mg/Kg	2.6	79	680	C022307-PRA1B3	0.26	0.32	1000	0	3000	0
VPH	m&p-Xylenes	NA	4	9	mg/Kg	0.77	361	3100	C022307-PRA1B3	0.51	0.64	1000	0	3000	0
VPH	o-Xylene	95-47-6	2	9	mg/Kg	39	88	750	C022307-PRA1B3	0.26	0.32	1000	0	3000	0
VPH	Toluene	108-88-3	2	9	mg/Kg	1.4	12	110	C022307-PRA1B3	0.26	0.32	1000	0	3000	0
Metals	Aluminum	7429-90-5	179	179	mg/Kg	4730	14074	52000	C062304-B36A-0.4-2.1			NA	NA	NA	NA
Metals	Antimony	7440-36-0	118	296	mg/Kg	0.23	1.9	39	C022607-BS1	1	6.94	30	1	30	1
Metals	Arsenic	7440-38-2	301	301	mg/Kg	2.8	39	190	C100604-B62-S3			20	245	50	61
Metals	Barium	7440-39-3	184	184	mg/Kg	12	66	330	C062204-B32-6-8			3000	0	5000	0
Metals	Beryllium	7440-41-7	127	296	mg/Kg	0.007	0.34	0.81	B203 s1	0.1	4.5	200	0	200	0
Metals	Cadmium	7440-43-9	64	184	mg/Kg	0.2	0.33	1.67	B11(0-2)	0.11	0.65	100	0	100	0
Metals	Calcium	7440-70-2	179	179	mg/Kg	620	2434	20000	C062304-B36A-0.4-2.1			NA	NA	NA	NA
Metals	Chromium	7440-47-3	427	453	mg/kg	17	350	4600	C062204-B32-6-8	45	155	3000	3	5000	0
Metals	Cobalt	7440-48-4	178	179	mg/Kg	3.7	10	35	C042407-B234	5.62	5.62	NA	NA	NA	NA
Metals	Copper	7440-50-8	301	301	mg/Kg	7.4	202	2700	C062204-B32-4-6			NA	NA	NA	NA
Metals	Hexavalent Chromium	18540-29-9	283	338	mg/kg	0.2	24	590	C052405-B92S2	0.16	8	200	9	200	9
Metals	Iron	7439-89-6	179	179	mg/Kg	8410	20260	70000	C042407-B234			NA	NA	NA	NA
Metals	Lead	7439-92-1	299	301	mg/Kg	2.6	40	1800	C022707-AB1	5.62	5.79	600	3	600	3
Metals	Magnesium	7439-95-4	179	179	mg/Kg	2310	7930	32000	C042407-B234			NA	NA	NA	NA
Metals	Manganese	7439-96-5	179	179	mg/Kg	79	298	1100	C062304-B36A-0.4-2.1			NA	NA	NA	NA
Metals	Mercury	7439-97-6	59	179	mg/Kg	0.0088	0.046	0.39	C062204-B32-4-6	0.034	0.13	30	0	30	0
Metals	Nickel	7440-02-0	184	184	mg/Kg	12	38	210	C062204-B33-6-8			1000	0	1000	0
Metals	Potassium	7440-09-7	179	179	mg/Kg	450	3392	28000	C042407-B234			NA	NA	NA	NA
Metals	Selenium	7782-49-2	36	179	mg/Kg	0.3	0.77	0.94	B208 s1	0.52	11	700	0	700	0
Metals	Silver	7440-22-4	83	184	mg/Kg	0.034	2.8	72	C022607-BS1	0.5	11	200	0	200	0
Metals	Sodium	7440-23-5	122	179	mg/Kg	17.3	261	13000	C062204-B32-6-8	26	740	NA	NA	NA	NA
Metals	Thallium	7440-28-0	30	179	mg/Kg	0.15	1.5	1.4	B202 s3	0.58	23	60	0	80	0
Metals	Vanadium	7440-62-2	179	179	mg/Kg	9.8	33	220	C062204-B32-6-8			700	0	700	0
Metals	Zinc	7440-66-6	179	179	mg/Kg	16.9	46	554	B206 s1			3000	0	5000	0

Notes:
mg/kg - milligrams per kilogram
NA - not applicable/not available
SQL - sample quantitation limit
(a) Includes all compounds detected at least once. Compounds never detected are not shown. This table summarizes the data for soil from 0-15 ft collected at the Conductorlab site.
(b) Average is calculated as the average of detected concentrations and one-half the reporting limit for non-detect results.
(c) Sample quantitation limits are not shown for compounds that were detected in 100 percent of samples.

Prepared by: ARQ 8/31/2020
Checked by: CF 9/16/2020

Table 5
Summary Statistics: Soil (all depths)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Chemical (a)	CASRN	Frequency of Detection		Units	Minimum Detected Value	Average (b)	Maximum Detected Value	Location of Maximum Detected Value	Minimum SQL (c)	Maximum SQL (c)	S-2/GW-3 Standard	# Detections above S-2/GW-3 Standard	S-3/GW-3 Standard	# Detections above S-3/GW-3 Standard	FOD	low FOD (<5%)	Max conc <5x max SQL	Max > background	COPC?	COPC exclusion rationale
VOCs	1,1,1-Trichloroethane	71-55-6	4	167	mg/Kg	0.009	0.049	1.4	C042407-B233 S4	0.0014	0.61	1000	0	3000	0	2%	YES	YES	NA	YES	chlorinated VOC
VOCs	1,2,4-Trimethylbenzene	95-63-6	7	167	mg/Kg	0.0015	0.041	0.65	C022307-PRA1B3	0.0014	0.61	NA	NA	NA	NA	4%	YES	YES	NA	no	low FOD/low detect
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	2	167	mg/Kg	0.12	0.036	0.13	C022307-PRA1B1	0.0013	0.61	NA	NA	NA	NA	1%	YES	YES	NA	no	low FOD/low detect
VOCs	1,3,5-Trimethylbenzene	108-67-8	6	167	mg/Kg	0.052	0.038	0.42	C022307-PRA1B3	0.0013	0.61	NA	NA	NA	NA	4%	YES	YES	NA	no	low FOD/low detect
VOCs	1,4-Dichlorobenzene	106-46-7	1	167	mg/Kg	0.0064	0.035	0.0064	C062204-B21B-8-10	0.0013	0.61	400	0	2000	0	1%	YES	YES	NA	no	low FOD/low detect
VOCs	2-Chlorotoluene	95-49-8	1	167	mg/Kg	0.00062	0.035	0.00062	C022707-AB1	0.0014	0.61	NA	NA	NA	NA	1%	YES	YES	NA	no	low FOD/low detect
VOCs	Acetone	67-64-1	7	162	mg/Kg	0.0053	0.92	0.17	C022607-BS1	0.028	26	400	0	400	0	4%	YES	YES	NA	no	low FOD/low detect
VOCs	Carbon disulfide	75-15-0	2	162	mg/Kg	0.0055	0.12	0.012	C062204-B33-6-8	0.0018	12	NA	NA	NA	NA	1%	YES	YES	NA	no	low FOD/low detect
VOCs	cis-1,2-Dichloroethene	156-59-2	20	167	mg/Kg	0.0011	0.069	4.3	C042407-B233 S3	0.0013	0.61	500	0	500	0	12%	no	no	NA	YES	NA
VOCs	Ethylbenzene	100-41-4	22	167	mg/Kg	0.0017	6.4	470	C022307-PRA1B3	0.0014	0.61	1000	0	3000	0	13%	no	no	NA	YES	NA
VOCs	Isopropylbenzene	98-82-8	7	167	mg/Kg	0.12	0.087	4.7	C022307-PRA1B3	0.0013	0.61	NA	NA	NA	NA	4%	YES	no	NA	YES	NA
VOCs	m&p-Xylenes	NA	35	162	mg/Kg	0.0012	29	1800	C022307-PRA1B3	0.0014	0.61	1000	1	3000	0	22%	no	no	NA	YES	NA
VOCs	Methylene Chloride	75-09-2	1	167	mg/Kg	0.0087	0.031	0.0087	C022707-AB1	0.0028	1.2	700	0	700	0	1%	YES	YES	NA	YES	chlorinated VOC
VOCs	Naphthalene	91-20-3	2	167	mg/Kg	0.24	0.13	1.9	C022307-PRA1B3	0.01	6.1	1000	0	3000	0	1%	YES	YES	YES	no	low FOD/low detect
VOCs	n-Butylbenzene	104-51-8	2	167	mg/Kg	0.067	0.035	0.12	C022307-PRA1B3	0.0013	0.61	NA	NA	NA	NA	1%	YES	YES	NA	no	low FOD/low detect
VOCs	N-Propylbenzene	103-65-1	7	167	mg/Kg	0.054	0.050	1.5	C022307-PRA1B3	0.0013	0.61	NA	NA	NA	NA	4%	YES	YES	NA	no	low FOD/low detect
VOCs	o-Xylene	95-47-6	22	162	mg/Kg	0.0011	7.6	550	C022307-PRA1B3	0.0014	0.61	1000	0	3000	0	14%	no	no	NA	YES	NA
VOCs	Tetrachloroethene	127-18-4	9	167	mg/Kg	0.0015	0.036	0.22	C022307-PRA1B3	0.0014	0.61	200	0	1000	0	5%	no	YES	NA	YES	NA
VOCs	Toluene	108-88-3	17	167	mg/Kg	0.0004	1.9	130	C042407-B232 S1	0.0013	0.61	1000	0	3000	0	10%	no	no	NA	YES	NA
VOCs	Trichloroethene	79-01-6	45	167	mg/Kg	0.001	0.33	23	C042407-B232 S1	0.0014	0.61	60	0	60	0	27%	no	no	NA	YES	NA
VOCs	Vinyl chloride	75-01-4	1	167	mg/Kg	0.086	0.045	0.086	C042407-B233 S3	0.0027	1.2	7	0	60	0	1%	YES	YES	NA	YES	chlorinated VOC
SVOCs	2-Methylnaphthalene	91-57-6	2	30	mg/Kg	0.87	0.23	2.4	C062204-B21B-8-10	0.17	1.8	500	0	500	0	7%	no	YES	YES	YES	NA
SVOCs	Acenaphthene	83-32-9	2	30	mg/Kg	0.73	0.23	2.3	C062204-B21B-8-10	0.17	1.8	3000	0	5000	0	7%	no	YES	YES	YES	NA
SVOCs	Acenaphthylene	208-96-8	2	30	mg/Kg	0.15	0.15	0.5	C062204-B21B-8-10	0.17	1.8	10	0	10	0	7%	no	YES	no	no	background
SVOCs	Anthracene	120-12-7	2	30	mg/Kg	0.45	0.19	1.5	C062204-B21B-8-10	0.17	1.8	3000	0	5000	0	7%	no	YES	YES	YES	NA
SVOCs	Benzo[a]anthracene	56-55-3	2	30	mg/Kg	0.36	0.17	1.1	C062204-B21B-8-10	0.17	1.8	40	0	300	0	7%	no	YES	YES	YES	NA
SVOCs	Benzo[a]pyrene	50-32-8	2	30	mg/Kg	0.23	0.16	0.75	C062204-B21B-8-10	0.17	1.8	7	0	30	0	7%	no	YES	YES	YES	NA
SVOCs	Benzo[b]fluoranthene	205-99-2	2	30	mg/Kg	0.13	0.14	0.35	C062204-B21B-8-10	0.17	1.8	40	0	300	0	7%	no	YES	no	no	background
SVOCs	Benzo[g,h,i]perylene	191-24-2	2	30	mg/Kg	0.093	0.15	0.5	C062204-B21B-8-10	0.17	1.8	3000	0	5000	0	7%	no	YES	YES	YES	NA
SVOCs	Benzo[k]fluoranthene	207-08-9	2	30	mg/Kg	0.16	0.15	0.56	C062204-B21B-8-10	0.17	1.8	400	0	3000	0	7%	no	YES	YES	YES	NA
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	4	24	mg/Kg	0.22	0.26	0.24	C062104-B20-4-6	0.35	3.7	600	0	2000	0	17%	no	YES	NA	YES	NA
SVOCs	Chrysene	218-01-9	2	30	mg/Kg	0.3	0.17	0.95	C062204-B21B-8-10	0.17	1.8	400	0	3000	0	7%	no	YES	YES	YES	NA
SVOCs	Dibenz(a,h)anthracene	53-70-3	1	30	mg/Kg	0.19	0.14	0.19	C062204-B21B-8-10	0.17	1.8	4	0	30	0	3%	YES	YES	YES	YES	retain with PAHs
SVOCs	DIBENZOFURAN	132-64-9	1	24	mg/Kg	0.28	0.26	0.28	C062204-B21B-8-10	0.34	3.7	NA	NA	NA	NA	4%	YES	YES	NA	no	low FOD/low detect
SVOCs	Fluoranthene	206-44-0	3	30	mg/Kg	0.15	0.21	1.8	C062204-B21B-8-10	0.17	1.8	3000	0	5000	0	10%	no	YES	YES	YES	NA
SVOCs	Fluorene	86-73-7	2	30	mg/Kg	0.52	0.19	1.4	C062204-B21B-8-10	0.17	1.8	3000	0	5000	0	7%	no	YES	YES	YES	NA
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	1	30	mg/Kg	0.35	0.14	0.35	C062204-B21B-8-10	0.17	1.8	40	0	300	0	3%	YES	YES	no	no	background
SVOCs	Naphthalene	91-20-3	4	30	mg/Kg	0.22	0.27	2.9	C062204-B21B-8-10	0.18	1.8	1000	0	3000	0	13%	no	YES	YES	YES	NA
SVOCs	Phenanthrene	85-01-8	3	30	mg/Kg	0.19	0.34	4.9	C062204-B21B-8-10	0.17	1.8	1000	0	3000	0	10%	no	YES	YES	YES	NA
SVOCs	Pyrene	129-00-0	4	30	mg/Kg	0.15	0.25	2.8	C062204-B21B-8-10	0.17	1.8	3000	0	5000	0	13%	no	YES	YES	YES	NA
EPH	Acenaphthene	83-32-9	1	126	mg/Kg	0.68	0.20	0.68	C022307-PRA1B2	0.34	1.1	3000	0	5000	0	1%	YES	YES	YES	YES	COPC for SVOC
EPH	Anthracene	120-12-7	2	126	mg/Kg	0.53	0.20	1.3	C022307-PRA1B2	0.34	1.1	3000	0	5000	0	2%	YES	YES	YES	YES	COPC for SVOC
EPH	Benzo[a]anthracene	56-55-3	7	126	mg/Kg	0.39	0.24	3.5	C022307-PRA1B2	0.34	1.1	40	0	300	0	6%	no	YES	YES	YES	NA
EPH	Benzo[a]pyrene	50-32-8	5	126	mg/Kg	0.41	0.22	2.3	C022307-PRA1B2	0.34	1.1	7	0	30	0	4%	YES	YES	YES	YES	COPC for SVOC
EPH	Benzo[b]fluoranthene	205-99-2	10	126	mg/Kg	0.7	0.25	1.5	B208 s1 RE, C022307-PRA1B2	0.34	1.1	40	0	300	0	8%	no	YES	no	no	background
EPH	Benzo[g,h,i]perylene	191-24-2	1	126	mg/Kg	1.2	0.20	1.2	C022307-PRA1B2	0.34	1.1	3000	0	5000	0	1%	YES	YES	YES	YES	COPC for SVOC
EPH	Benzo[k]fluoranthene	207-08-9	4	126	mg/Kg	0.64	0.22	2.2	C022307-PRA1B2	0.34	1.1	400	0	3000	0	3%	YES	YES	YES	YES	COPC for SVOC
EPH	C11-C22 Aromatics	NA	51	142	mg/Kg	3.7	5.5	110	C022307-PRA1B2	3.4	11	3000	0	5000	0	36%	no	no	NA	YES	NA
EPH	C19-C36 Aliphatics	NA	61	146	mg/Kg	3.8	5.1	40	B200 s2 RE	3.4	4.5	5000	0	5000	0	42%	no	no	NA	YES	NA
EPH	C9-C18 Aliphatics	NA	15	146	mg/Kg	4	3.8	150	C022307-PRA1B2	3.4	6.6	3000	0	5000	0	10%	no	no	NA	YES	NA
EPH	Chrysene	218-01-9	7	126	mg/Kg	0.41	0.24	3.7	C022307-PRA1B2	0.34	1.1	400	0	3000	0	6%	no	YES	YES	YES	NA
EPH	Dibenz(a,h)anthracene	53-70-3	1	126	mg/Kg	0.79	0.20	0.79	C022307-PRA1B2	0.34	1.1	4	0	30	0	1%	YES	YES	YES	YES	COPC for SVOC
EPH	Fluoranthene	206-44-0	10	126	mg/Kg	0.27	0.30	5.6	C022307-PRA1B2	0.34	1.1	3000	0	5000	0	8%	no	no	YES	YES	NA
EPH	Fluorene	86-73-7	1	126	mg/Kg	0.59	0.19	0.59	C022307-PRA1B2	0.34	1.1	3000	0	5000	0	1%	YES	YES	YES	YES	COPC for SVOC
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	2	126	mg/Kg	0.39	0.20	0.98	C022307-PRA1B2	0.34	1.1	40	0	300	0	2%	YES	YES	no	no	background

Table 5
Summary Statistics: Soil (all depths)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Chemical (a)	CASRN	Frequency of Detection		Units	Minimum Detected Value	Average (b)	Maximum Detected Value	Location of Maximum Detected Value	Minimum SQL (c)	Maximum SQL (c)	S-2/GW-3 Standard	# Detections above S-2/GW-3 Standard	S-3/GW-3 Standard	# Detections above S-3/GW-3 Standard	FOD	low FOD (<5%)	Max conc <5x max SQL	Max > background	COPC?	COPC exclusion rationale
EPH	Naphthalene	91-20-3	2	126	mg/Kg	0.47	0.20	0.93	B207 s1	0.34	1.1	1000	0	3000	0	2%	YES	YES	YES	YES	COPC for SVOC
EPH	Phenanthrene	85-01-8	7	126	mg/Kg	0.39	0.25	4.2	C022307-PRA1B2	0.34	1.1	1000	0	3000	0	6%	no	YES	YES	YES	NA
EPH	Pyrene	129-00-0	9	126	mg/Kg	0.4	0.29	5.1	C022307-PRA1B2	0.34	1.1	3000	0	5000	0	7%	no	YES	YES	YES	NA
VPH	C9-C10 Aromatics	NA	2	9	mg/kg	32	87	740	C022307-PRA1B3	2.6	3.2	500	1	500	1	22%	no	no	NA	YES	NA
VPH	C9-C12 Aliphatics	NA	2	9	mg/kg	47	184	1600	C022307-PRA1B3	2.6	3.2	3000	0	5000	0	22%	no	no	NA	YES	NA
VPH	Ethylbenzene	100-41-4	3	9	mg/Kg	2.6	79	680	C022307-PRA1B3	0.26	0.32	1000	0	3000	0	33%	no	no	NA	YES	NA
VPH	m&p-Xylenes	NA	4	9	mg/Kg	0.77	361	3100	C022307-PRA1B3	0.51	0.64	1000	1	3000	1	44%	no	no	NA	YES	NA
VPH	o-Xylene	95-47-6	2	9	mg/Kg	39	88	750	C022307-PRA1B3	0.26	0.32	1000	0	3000	0	22%	no	no	NA	YES	NA
VPH	Toluene	108-88-3	2	9	mg/Kg	1.4	12	110	C022307-PRA1B3	0.26	0.32	1000	0	3000	0	22%	no	no	NA	YES	NA
Metals	Aluminum	7429-90-5	179	179	mg/Kg	4730	14074	52000	C062304-B36A-0.4-2.1			NA	NA	NA	NA	100%	no	no	YES	YES	NA
Metals	Antimony	7440-36-0	118	297	mg/Kg	0.23	1.9	39	C022607-BS1	1	6.94	30	1	30	1	40%	no	no	YES	YES	NA
Metals	Arsenic	7440-38-2	302	302	mg/Kg	2.8	39	190	C100604-B62-S3			20	245	50	61	100%	no	no	no (2)	no	background
Metals	Barium	7440-39-3	184	184	mg/Kg	12	66	330	C062204-B32-6-8			3000	0	5000	0	100%	no	no	YES	YES	NA
Metals	Beryllium	7440-41-7	127	297	mg/Kg	0.007	0.34	0.81	B203 s1	0.1	4.5	200	0	200	0	43%	no	YES	YES	YES	NA
Metals	Cadmium	7440-43-9	64	184	mg/Kg	0.2	0.33	1.67	B11(0-2)	0.11	0.65	100	0	100	0	35%	no	YES	no	no	background
Metals	Calcium	7440-70-2	179	179	mg/Kg	620	2434	20000	C062304-B36A-0.4-2.1			NA	NA	NA	NA	100%	no	no	NA	no	essential nutrient
Metals	Chromium	7440-47-3	428	454	mg/kg	17	350	4600	C062204-B32-6-8	45	155	3000	3	5000	0	94%	no	no	YES	YES	NA
Metals	Cobalt	7440-48-4	178	179	mg/Kg	3.7	9.7	35	C042407-B234	5.62	5.62	NA	NA	NA	NA	99%	no	no	YES	YES	NA
Metals	Copper	7440-50-8	302	302	mg/Kg	7.4	201	2700	C062204-B32-4-6			NA	NA	NA	NA	100%	no	no	YES	YES	NA
Metals	Hexavalent Chromium	18540-29-9	284	339	mg/kg	0.2	24	590	C052405-B92S2	0.16	8	200	9	200	9	84%	no	no	YES	YES	NA
Metals	Iron	7439-89-6	179	179	mg/Kg	8410	20260	70000	C042407-B234			NA	NA	NA	NA	100%	no	no	YES	no	essential nutrient
Metals	Lead	7439-92-1	300	302	mg/Kg	2.6	40	1800	C022707-AB1	5.62	5.79	600	3	600	3	99%	no	no	YES	YES	NA
Metals	Magnesium	7439-95-4	179	179	mg/Kg	2310	7930	32000	C042407-B234			NA	NA	NA	NA	100%	no	no	YES	no	essential nutrient
Metals	Manganese	7439-96-5	179	179	mg/Kg	79	298	1100	C062304-B36A-0.4-2.1			NA	NA	NA	NA	100%	no	no	YES	YES	NA
Metals	Mercury	7439-97-6	59	179	mg/Kg	0.0088	0.046	0.39	C062204-B32-4-6	0.034	0.13	30	0	30	0	33%	no	YES	YES	YES	NA
Metals	Nickel	7440-02-0	184	184	mg/Kg	12	38	210	C062204-B33-6-8			1000	0	1000	0	100%	no	no	YES	YES	NA
Metals	Potassium	7440-09-7	179	179	mg/Kg	450	3392	28000	C042407-B234			NA	NA	NA	NA	100%	no	no	NA	no	essential nutrient
Metals	Selenium	7782-49-2	36	179	mg/Kg	0.3	0.77	0.94	B208 s1	0.52	11	700	0	700	0	20%	no	YES	YES	YES	NA
Metals	Silver	7440-22-4	83	184	mg/Kg	0.034	2.8	72	C022607-BS1	0.5	11	200	0	200	0	45%	no	no	YES	YES	NA
Metals	Sodium	7440-23-5	122	179	mg/Kg	17.3	261	13000	C062204-B32-6-8	26	740	NA	NA	NA	NA	68%	no	no	NA	no	essential nutrient
Metals	Thallium	7440-28-0	30	179	mg/Kg	0.15	1.5	1.4	B202 s3	0.58	23	60	0	80	0	17%	no	YES	YES	YES	NA
Metals	Vanadium	7440-62-2	179	179	mg/Kg	9.8	33	220	C062204-B32-6-8			700	0	700	0	100%	no	no	YES	YES	NA
Metals	Zinc	7440-66-6	179	179	mg/Kg	16.9	46	554	B206 s1			3000	0	5000	0	100%	no	no	YES	YES	NA

Table 5
Summary Statistics: Soil (all depths)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Chemical (a)	CASRN	Frequency of Detection		Units	Minimum Detected Value	Average (b)	Maximum Detected Value	Location of Maximum Detected Value	Minimum SQL (c)	Maximum SQL (c)	S-2/GW-3 Standard	# Detections above S-2/GW-3 Standard	S-3/GW-3 Standard	# Detections above S-3/GW-3 Standard	FOD	low FOD (<5%)	Max conc <5x max SQL	Max > background	COPC?	COPC exclusion rationale
TIC	.alpha.-Pinene	NA	1	1	mg/Kg	0.76	0.76	0.76	C022207-ES3			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	1,3-Butadiene, pentachloro-	NA	1	1	mg/Kg	0.0088	0.0088	0.0088	C022707-AB1			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	1-3-dimethyl-Naphthalene	575-41-7	1	1	mg/Kg	0.008	0.0080	0.008	C062204-B26-2-4			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	1-4-Methanonaphthalene	NA	2	2	mg/Kg	0.02	0.030	0.04	C062204-B21B-8-10			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	1-Ethyl-Naphthalene	1127-76-0	1	1	mg/Kg	0.007	0.0070	0.007	C062204-B26-2-4			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	1-Methyl-Phenanthrene	832-69-9	1	1	mg/Kg	0.02	0.020	0.02	C062204-B21B-8-10			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	1-Methyl-Pyrene	NA	1	1	mg/Kg	0.03	0.030	0.03	C062204-B21B-8-10			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	1S-.alpha.-Pinene	NA	1	1	mg/Kg	0.015	0.015	0.015	C022607-BB2			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	2,3-Dimethyl-Naphthalene	581-40-8	1	1	mg/Kg	0.02	0.020	0.02	C062204-B21B-8-10			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	2,4,4-Trimethyl-1-pentene	NA	1	1	mg/Kg	0.00096	0.00096	0.00096	C022007-DS3			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	2,6-Dimethyl-Naphthalene	581-42-0	1	1	mg/Kg	0.02	0.020	0.02	C062204-B21B-8-10			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	2,7-dimethyl-Naphthalene	582-16-1	1	1	mg/Kg	0.005	0.0050	0.005	C062204-B26-2-4			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	2-Ethyl-Naphthalene	939-27-5	1	1	mg/Kg	0.02	0.020	0.02	C062204-B21B-8-10			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	2-Methylanthracene	613-12-7	2	2	mg/Kg	0.006	0.013	0.02	C062204-B21B-8-10			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	2-Methyl-Fluoranthene	33543-31-6	1	1	mg/Kg	0.005	0.0050	0.005	C062204-B26-2-4			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	Benzene, (chloromethyl)(1-	NA	1	1	mg/Kg	0.0076	0.0076	0.0076	C022707-AB1			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	Benzene, 1,2-dimethyl-	NA	1	1	mg/Kg	3.2	3.2	3.2	C042407-B232 S4			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	Benzene, 1,3-dimethyl-	NA	1	1	mg/Kg	3.4	3.4	3.4	C042407-B232 S1			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	Benzene, 1-ethyl-2-methyl-	NA	1	1	mg/Kg	1.7	1.7	1.7	C042407-B232 S1			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	1	1	mg/Kg	0.17	0.17	0.17	C022707-AB1			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	1	1	mg/Kg	0.09	0.090	0.09	C022707-AB1			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	1	1	mg/Kg	0.0086	0.0086	0.0086	C022707-AB1			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	1	1	mg/Kg	1.1	1.1	1.1	C022207-ES3			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	Cyclic octaatomic sulfur	NA	3	3	mg/Kg	0.0050	0.14	0.38	C062104-B18-4-6			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	Cyclopentane, methyl-	NA	2	2	mg/Kg	1.3	2.2	3	C042407-B232 S1			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	Disulfide, dimethyl	0624-92-0	1	1	mg/Kg	0.02	0.020	0.02	C062204-B33-6-8			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	Hexanal	0066-25-1	3	3	mg/Kg	0.03	0.043	0.065	C022707-CS1			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	Pentane, 2-methyl-	NA	1	1	mg/Kg	1.1	1.1	1.1	C042407-B232 S1			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	Pentane, 3-methyl-	NA	1	1	mg/Kg	1.6	1.6	1.6	C042407-B232 S1			NA	NA	NA	NA	100%	no	no	NA	no	TIC
TIC	Phthalic acid,butyl ester	88-99-3	1	1	mg/Kg	0.005	0.0050	0.005	C062304-B39-2-2.9			NA	NA	NA	NA	100%	no	no	NA	no	TIC

Notes:
COPC - chemical of potential concern
FOD - frequency of detection
mg/kg - milligrams per kilogram
NA - not applicable/not available
SQL - sample quantitation limit
The statistical summary of soil at all depths is presented, not because of human health risk (which evaluates soils to depth of 15 feet) , but with respect to evaluating risk to public welfare and environment by comparison to Upper Concentration Limits.
(a) Includes all compounds detected at least once in soil. Compounds never detected are not shown.
(b) Average is calculated as the average of detected concentrations and one-half the reporting limit for non-detect results.
(c) Sample quantitation limits are not shown for compounds that were detected in 100 percent of samples.

Prepared by: ARQ 8/31/2020
Checked by: CF 9/16/2020

Table 6
Comparison of Soil Data to MassDEP Backgrounds Levels
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Compound	CASRN	Maximum Detected Concentration in Soil (mg/kg)	Background Concentration for Natural Soil (mg/kg)	Is Max Detect Above Background?
ACENAPHTHENE	83-32-9	2.3	0.5	YES
ACENAPHTHYLENE	208-96-8	0.50	0.5	no
ANTHRACENE	120-12-7	1.5	1	YES
ALUMINUM	7429-90-5	52,000	10,000	YES
ANTIMONY	7440-36-0	39	1	YES
ARSENIC	7440-38-2	190	60 (1)	no (2)
BARIUM	7440-39-3	330	50	YES
BENZO[a]ANTHRACENE	56-55-3	3.5	2	YES
BENZO[a]PYRENE	50-32-8	2.3	2	YES
BENZO[b]FLUORANTHENE	205-99-2	1.5	2	no
BENZO[g,h,i]PERYLENE	191-24-2	1.2	1	YES
BENZO[k]FLUORANTHENE	207-08-9	2.2	1	YES
BERYLLIUM	7440-41-7	0.81	0.4	YES
CADMIUM	7440-43-9	1.7	2	no
CHROMIUM	7440-47-3	4,600	30	YES
CHROMIUM(VI)	18540-29-9	590	30	YES
CHRYSENE	218-01-9	3.7	2	YES
COBALT	7440-48-4	35	4	YES
COPPER	7440-50-8	2,700	40	YES
DIBENZ(a,h)ANTHRACENE	53-70-3	0.79	0.5	YES
FLUORANTHENE	206-44-0	5.6	4	YES
FLUORENE	86-73-7	1.4	1	YES
INDENO[1,2,3-cd]PYRENE	193-39-5	0.98	1	no
IRON	7439-89-6	70,000	20,000	YES
LEAD	7439-92-1	1,800	100	YES
MAGNESIUM	7439-95-4	32,000	5,000	YES
MANGANESE	7439-96-5	1,100	300	YES
MERCURY	7439-97-6	0.39	0.3	YES
2-METHYLNAPHTHALENE	91-57-6	2.4	0.5	YES
NAPHTHALENE	91-20-3	2.9	0.5	YES
NICKEL	7440-02-0	210	20	YES
PHENANTHRENE	85-01-8	4.9	3	YES
PYRENE	129-00-0	5.1	4	YES
SELENIUM	7782-49-2	0.94	0.5	YES
SILVER	7440-22-4	72	0.6	YES
THALLIUM	7440-28-0	1.4	0.6	YES
VANADIUM	7440-62-2	220	30	YES
ZINC	7440-66-6	554	100	YES

Background values are for natural soil from MassDEP's Technical Update, Prepared by: CF 9/9/2020
Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil, May 2002. Checked by: JPK 9/11/2020

1. Site-specific calculated background level for arsenic. See **Attachment B**.

2. A site-specific evalaution of arsenic as a background condition has been conducted and included in **Attachment B**.
Based on this evaluation, arsenic concentrations are consistent with background and therefore arsenic is not a COC for soil.
There are localized elevated background concentrations of arsenic in soil

Table 7
Summary Statistics: Groundwater
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Chemical (a)	CASRN	Frequency of Detection (FOD)		Units	Minimum Detected Value	Average (b)	Maximum Detected Value	Location of Maximum Detected Value	Minimum SQL	Maximum SQL	GW-3 Standard	# Detections above GW-3 Standard	FOD	low FOD (<5%)	Max conc <5x min SQL	COPC?	COPC exclusion rationale
VOCs	1,1-Dichloroethane	75-34-3	6	205	ug/L	0.42	4.8	1.6	CIW-1B	1	200	20000	0	3%	YES	YES	no	low FOD/low detect
VOCs	1,1-Dichloroethene	75-35-4	34	205	ug/L	0.31	4.9	8.8	PP-2	1	200	30000	0	17%	no	no	YES	NA
VOCs	2-Butanone	78-93-3	1	205	ug/L	5.7	55	5.7	CLW-8	10	2500	50000	0	0.49%	YES	YES	no	low FOD/low detect
VOCs	Acetone	67-64-1	7	205	ug/L	3.0	234	22	CLW-8	25	10000	50000	0	3%	YES	YES	no	low FOD/low detect
VOCs	Carbon Disulfide	75-15-0	1	205	ug/L	0.21	46	0.21	DMW-B	1	2000	NA	NA	0.49%	YES	YES	no	low FOD/low detect
VOCs	Chloroethane	75-00-3	8	205	ug/L	0.48	9.5	22	CLW-5B	1	400	NA	NA	4%	YES	no	YES	NA
VOCs	cis-1,2-Dichloroethene	156-59-2	157	205	ug/L	0.84	141	3000	CLW-16B	1	200	50000	0	77%	no	no	YES	NA
VOCs	Methyl Tert-Butyl Ether	1634-04-4	2	205	ug/L	0.16	4.8	0.18	CLW-20B	1	200	50000	0	1%	YES	YES	no	low FOD/low detect
VOCs	Methylene Chloride	75-09-2	13	205	ug/L	0.70	5.6	77	CLW-16B	1	250	50000	0	6%	no	no	YES	NA
VOCs	o-Xylene	95-47-6	1	205	ug/L	0.76	4.8	0.76	CLW-5B	1	200	5000	0	0.49%	YES	YES	no	low FOD/low detect
VOCs	Tetrachloroethene	127-18-4	11	205	ug/L	0.43	5.0	27	CIW-1B	1	200	30000	0	5%	no	no	YES	NA
VOCs	Tetrahydrofuran	109-99-9	1	205	ug/L	1.7	48	1.7	CIW-1B	10	2000	NA	NA	0.49%	YES	YES	no	low FOD/low detect
VOCs	Toluene	108-88-3	4	205	ug/L	0.55	4.8	11	OSW-2B	1	200	40000	0	2%	YES	no	YES	NA
VOCs	trans-1,2-Dichloroethene	156-60-5	60	205	ug/L	0.28	30	1100	OSW-2B	1	200	50000	0	29%	no	no	YES	NA
VOCs	Trichloroethene	79-01-6	198	205	ug/L	0.49	679	14000	CLW-16B	1	400	5000	8	97%	no	no	YES	NA
VOCs	Vinyl Chloride	75-01-4	62	205	ug/L	0.93	34	1200	CLW-16B	1	200	50000	0	30%	no	no	YES	NA
Metals	Chromium	7440-47-3	210	242	ug/L	1.0	167	3400	XRF-32	5	5	300	39	87%	no	no	YES	NA
Metals	Hexavalent Chromium	18540-29-9	143	242	ug/L	5.4	106	2400	OSW-2B	10	50	300	25	59%	no	no	YES	NA
Metals	Iron	7439-89-6	32	36	ug/L	26	10421	150000	CPZ-2C	50	50	NA	NA	89%	no	no	no	water quality param
Other	Alkalinity	ALK	11	11	ug/L	43000	235000	1400000	CPZ-2C	1000	1000	NA	NA	100%	no	no	no	water quality param
Other	Alkalinity Total	ALKALINITY	35	35	ug/L	43000	176400	1400000	CPZ-2C	1000	1000	NA	NA	100%	no	no	no	water quality param
Other	Bicarbonate Alkalinity	ALKB	31	31	ug/L	43000	180290	1400000	CPZ-2C	1000	1000	NA	NA	100%	no	no	no	water quality param
Other	Methane	74-82-8	27	35	ug/L	1.1	238	3100	CPZ-2C	4	180	NA	NA	77%	no	no	no	water quality param
Other	Nitrogen, Nitrate	14797-55-8	26	35	ug/L	49	332	2200	RW-3	50	250	NA	NA	74%	no	no	no	water quality param
Other	Sulfate	14808-79-8	35	35	ug/L	4000	98951	1100000	CPZ-2C	2000	40000	NA	NA	100%	no	no	no	water quality param

Notes:
ug/L - micrograms per liter
SQL - sample quantitation limit
(a) Includes all compounds detected at least once in groundwater. Compounds never detected are not shown.
(b) Average is calculated as the average of detected concentrations and one-half the reporting limit for non-detect results.

Prepared by: ARQ 9/11/2020
Checked by: CF 9/15/2020
Revised by: CF 3/16/2022
Checked by: KALS 6/13/2022

Table 8
Summary Statistics: Groundwater, On-Property <15 ft
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Chemical (a)	CASRN	Frequency of Detection		Units	Minimum Detected Value	Average (b)	Maximum Detected Value	Location of Maximum Detected Value	Minimum SQL (c)	Maximum SQL (c)
Metals	Chromium	7440-47-3	88	96	ug/L	1.0	216	3400	XRF-32	5	5
Metals	Hexavalent Chromium	18540-29-9	71	97	ug/L	7.9	144	970	CLW-8	10	250
Metals	Iron	7439-89-6	23	27	ug/L	26	573	2200	CLW-7A	50	50
VOCs	1,1-Dichloroethene	75-35-4	27	68	ug/L	0.34	1.2	8.8	PP-2	1	10
VOCs	2-Butanone	78-93-3	1	68	ug/L	5.7	9.2	5.7	CLW-8	10	100
VOCs	Acetone	67-64-1	3	68	ug/L	3.0	44	22	CLW-8	25	500
VOCs	Chloroethane	75-00-3	7	68	ug/L	0.48	2.3	22	CLW-5B	1	20
VOCs	cis-1,2-Dichloroethene	156-59-2	54	68	ug/L	0.84	44	550	CLW-5A	1	20
VOCs	Methylene Chloride	75-09-2	1	68	ug/L	0.70	0.92	0.70	CLW-5B	1	10
VOCs	o-Xylene	95-47-6	1	68	ug/L	0.76	0.89	0.76	CLW-5B	1	10
VOCs	Tetrachloroethene	127-18-4	1	68	ug/L	0.43	0.89	0.43	CLW-8	1	10
VOCs	trans-1,2-Dichloroethene	156-60-5	7	68	ug/L	1.4	1.7	19	CLW-5B	1	10
VOCs	Trichloroethene	79-01-6	68	68	ug/L	0.65	93	1300	CLW-5A	1	20
VOCs	Vinyl Chloride	75-01-4	26	68	ug/L	1.0	7.2	140	CLW-5B	1	20
Other	Alkalinity	ALK	8	8	ug/L	43000	65625	91000	CLW-7A	1000	1000
Other	Alkalinity Total	ALKALINITY	26	26	ug/L	43000	69000	99000	CLW-7A	1000	1000
Other	Bicarbonate Alkalinity	ALKB	23	23	ug/L	43000	68217	99000	CLW-7A	1000	1000
Other	Methane	74-82-8	18	26	ug/L	1.1	79	1200	CLW-8	4	44
Other	Nitrogen, Nitrate	14797-55-8	20	26	ug/L	57	406	2200	RW-3	50	50
Other	Sulfate	14808-79-8	26	26	ug/L	9300	26588	41000	CLW-7A	2000	2000

Notes:

ug/L - micrograms per liter

SQL - sample quantitation limit

(a) Includes all compounds detected at least once in groundwater within the limits of the Conductorlab property. Data in this table are limited to wells screened at 15 ft bgs and above. Compounds never detected are not shown.

(b) Average is calculated as the average of detected concentrations and one-half the reporting limit for non-detect results.

(c) Sample quantitation limits are not shown for compounds that were detected in 100 percent of samples.

Prepared by: ARQ 09/11/2020
Checked by: CF 09/15/2020
Revised by: CF 03/16/2022
Checked by: KALS 06/13/2022

Table 9
Summary Statistics: Groundwater, Off-Property <15 ft
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Chemical (a)	CASRN	Frequency of Detection		Units	Minimum Detected Value	Average (b)	Maximum Detected Value	Location of Maximum Detected Value	Minimum SQL (c)	Maximum SQL (c)
Metals	Chromium	7440-47-3	38	40	ug/L	1.2	17	56	CLW-17	5	5
Metals	Hexavalent Chromium	18540-29-9	27	40	ug/L	6.3	17	72	CLW-17	10	10
VOCs	Acetone	67-64-1	3	40	ug/L	3.1	22	3.9	CLW-17	25	50
VOCs	cis-1,2-Dichloroethene	156-59-2	23	40	ug/L	0.85	1.9	18	CLW-17	1	1
VOCs	trans-1,2-Dichloroethene	156-60-5	1	40	ug/L	5.2	0.62	5.2	CLW-17	1	1
VOCs	Trichloroethene	79-01-6	40	40	ug/L	0.52	8.8	78	CLW-17	1	1

Notes:

ug/L - micrograms per liter

SQL - sample quantitation limit

(a) Includes all compounds detected at least once in groundwater outside the limits of the Conductorlab property. Data in this table are limited to wells screened at 15 ft bgs and above. Compounds never detected are not shown.

(b) Average is calculated as the average of detected concentrations and one-half the reporting limit for non-detect results.

(c) Sample quantitation limits are not shown for compounds that were detected in 100 percent of samples.

Prepared by: ARQ 09/11/2020
Checked by: CF 09/15/2020
Revised by: JPK 5/24/2022
Checked by: KALS 6/13/2022

Table 10
Summary Statistics: Surface Water
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Chemical (a)	CASRN	Frequency of Detection		Fraction	Units	Minimum Detected Value	Average (b)	Maximum Detected Value	Location of Maximum Detected Value	Minimum SQL (c)	Maximum SQL (c)
VOCs	1,4-Dioxane	123-91-1	1	35	N	ug/l	16	25	16	CSW-5	50	50
VOCs	Acetone	67-64-1	3	35	N	ug/l	3.5	23	12	CSW-5	50	50
VOCs	cis-1,2-Dichloroethene	156-59-2	3	35	N	ug/L	0.95	0.74	5.9	CSW-3	1	1
VOCs	Tetrachloroethene	127-18-4	2	35	N	ug/L	0.46	0.53	1.6	CSW-3	1	1
VOCs	Trichloroethene	79-01-6	24	35	N	ug/L	0.52	4.4	90	CSW-3	1	1
Metals	Arsenic	7440-38-2	1	35	D	ug/L	6.4	5.0	6.4	CSW-2	10	10
Metals	Barium	7440-39-3	35	35	D	ug/L	17	21	28	CSW-2	10	10
Metals	Calcium	7440-70-2	35	35	D	ug/L	22000	26157	30000	CSW-2	500	500
Metals	Chromium	7440-47-3	30	36	D	ug/L	6.6	72	840	CSW-3A	5	5
Metals	Copper	7440-50-8	27	35	D	ug/L	1.6	5.5	15	CSW-5	10	10
Metals	Hexavalent Chromium	18540-29-9	28	41	N	ug/L	7.3	59	880	CSW-3	10	50
Metals	Iron	7439-89-6	16	35	D	ug/L	20	28	110	CSW-5	50	50
Metals	Magnesium	7439-95-4	35	35	D	ug/L	1700	2116	2400	CSW-4	200	200
Metals	Manganese	7439-96-5	31	35	D	ug/L	0.55	12	120	CSW-5	3	3
Metals	Nickel	7440-02-0	6	35	D	ug/L	1.3	4.4	1.8	CSW-3	10	10
Metals	Potassium	7440-09-7	35	35	D	ug/l	2800	3496	4000	CSW-3	500	500
Metals	Sodium	7440-23-5	35	35	D	ug/l	20000	33886	44000	CSW-4	1000	1000
Metals	Zinc	7440-66-6	5	35	D	ug/l	4.8	22	7.0	CSW-3A	50	50
Other	Alkalinity	ALK	2	2	N	ug/l	76000	78500	81000	CSW-3	1000	1000
Other	Alkalinity Total	ALKALINITY	14	14	N	ug/l	35000	64714	87000	CSW-3	1000	1000
Other	Bicarbonate Alkalinity	ALKB	14	14	N	ug/L	35000	64714	87000	CSW-3	1000	1000
Other	Methane	74-82-8	5	14	N	ug/L	1.1	3.3	11	CSW-3	4	4
Other	Nitrogen, Nitrate	14797-55-8	14	14	N	ug/L	170	432	750	CSW-3	50	50
Other	Sulfate	14808-79-8	14	14	N	ug/L	6300	16171	34000	CSW-2	2000	4000

Notes:

ug/L - micrograms per liter

SQL - sample quantitation limit

D - Dissolved

N - No Fraction

(a) Includes all compounds detected at least once in surface water. Compounds never detected are not shown.

(b) Average is calculated as the average of detected concentrations and one-half the reporting limit for non-detect results.

Prepared by: ARQ 9/9/2020
Checked by: CF 9/9/2020
Revised by: CF 3/11/2022
Checked by: KALS 6/13/2022

Table 11
Summary Statistics: Sediment
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Chemical (a)	CASRN	Frequency of Detection		Units	Minimum Detected Value	Average (b)	Maximum Detected Value	Location of Maximum Detected Value	Minimum SQL (c)	Maximum SQL (c)
VOCs	Acetone	67-64-1	1	4	mg/Kg	0.013	0.058	0.013	C070218-CSD5	0.13	0.17
VOCs	Trichloroethene	79-01-6	3	4	mg/Kg	0.0016	0.0024	0.0042	C070218-CSD3	0.0029	0.0029
SVOCs	Benzo[a]anthracene	56-55-3	1	4	mg/Kg	0.18	0.67	0.18	C070218-CSD1	1	2
SVOCs	Benzo[a]pyrene	50-32-8	1	4	mg/Kg	0.18	0.67	0.18	C070218-CSD1	1	2
SVOCs	Benzo[b]fluoranthene	205-99-2	1	4	mg/Kg	0.22	0.68	0.22	C070218-CSD1	1	2
SVOCs	Benzo[g,h,i]perylene	191-24-2	1	4	mg/Kg	0.12	0.66	0.12	C070218-CSD1	1	2
SVOCs	Benzo[k]fluoranthene	207-08-9	1	4	mg/Kg	0.085	0.65	0.085	C070218-CSD1	1	2
SVOCs	Chrysene	218-01-9	1	4	mg/Kg	0.19	0.67	0.19	C070218-CSD1	1	2
SVOCs	Fluoranthene	206-44-0	1	4	mg/Kg	0.38	0.72	0.38	C070218-CSD1	1	2
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	2	4	mg/Kg	0.12	0.58	0.20	C070218-CSD5	2	2
SVOCs	Phenanthrene	85-01-8	1	4	mg/Kg	0.18	0.67	0.18	C070218-CSD1	1	2
SVOCs	Pyrene	129-00-0	1	4	mg/Kg	0.35	0.71	0.35	C070218-CSD1	1	2
Pesticides	4,4'-DDE	72-55-9	1	4	mg/Kg	0.0073	0.026	0.0073	C070218-CSD5	0.038	0.082
Pesticides	4,4'-DDT	50-29-3	1	4	mg/Kg	0.0043	0.026	0.0043	C070218-CSD5	0.038	0.082
Metals	Arsenic	7440-38-2	5	5	mg/kg	6.3	17	27	C040407-CSW2		
Metals	Barium	7440-39-3	4	4	mg/kg	16	30	39	C070218-CSD5		
Metals	Beryllium	7440-41-7	4	4	mg/kg	0.080	0.18	0.25	C070218-CSD5		
Metals	Cadmium	7440-43-9	3	4	mg/kg	0.030	0.11	0.15	C070218-CSD5	0.23	0.23
Metals	Chromium	7440-47-3	14	14	mg/kg	7.6	135	901	C111105-CSW3-S1		
Metals	Copper	7440-50-8	4	4	mg/kg	8.2	65	170	C040407-CSW5		
Metals	Hexavalent Chromium	18540-29-9	3	14	mg/kg	0.32	1.2	8.4	C111105-CSW3-S1	0.45	4.3
Metals	Lead	7439-92-1	7	7	mg/kg	3.4	13	26	C040407-CSW5		
Metals	Mercury	7439-97-6	1	4	mg/kg	0.020	0.013	0.020	C070218-CSD5	0.02	0.02
Metals	Nickel	7440-02-0	4	4	mg/kg	5.9	18	22	C070218-CSD3, C070218 CSD3A		
Metals	Vanadium	7440-62-2	4	4	mg/kg	5.6	13	17	C070218-CSD5		
Metals	Zinc	7440-66-6	4	4	mg/kg	15	39	64	C070218-CSD3A		

Notes:

Prepared by: ARQ 9/9/2020

Checked by: CF 9/9/2020

mg/kg - milligrams per kilogram

SQL - sample quantitation limit

(a) Includes all compounds detected at least once in sediment. Compounds never detected are not shown.

(b) Average is calculated as the average of detected concentrations and one-half the reporting limit for non-detect results.

(c) Sample quantitation limits are not shown for compounds that were detected in 100 percent of samples.

Table 12
Summary of Oil or Hazardous Material of Potential Concern by Media and Area
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Media:	Soil				Groundwater			Surface Water	Sediment
Exposure Point: OHMPC	Surface Soil (0 3 ft)	Subsurface Soil (3-15 ft)	Combined Soil (0-15 ft)	All Depths	All Depths	On Property (<15 ft)	Off Property (<15 ft)	All	All Depths
Volatile Organic Compounds									
1,1-Dichloroethene					X	X			
1,1,1-Trichloroethane	X	X	X	X					
1,4-Dioxane								X	
Acetone								X	X
Chloroethane					X	X			
cis-1,2-Dichloroethene	X	X	X	X	X	X	X	X	
Ethylbenzene	X	X	X	X					
Isopropylbenzene		X	X	X					
m&p-Xylenes	X	X	X	X					
Methylene Chloride	X		X	X	X	X			
o-Xylene	X	X	X	X					
Tetrachloroethene	X	X	X	X	X	X		X	
Toluene	X	X	X	X	X				
trans-1,2-Dichloroethene					X	X	X		
Trichloroethene	X	X	X	X	X	X	X	X	X
Vinyl chloride		X	X	X	X	X			
SemiVolatile Organic Compounds									
2-Methylnaphthalene	X	X	X	X					
Acenaphthene	X	X	X	X					
Anthracene	X	X	X	X					
Benzo[a]anthracene	X	X	X	X					X
Benzo[a]pyrene	X	X	X	X					X
Benzo[b]fluoranthene									X
Benzo[g,h,i]perylene	X	X	X	X					X
Benzo[k]fluoranthene	X	X	X	X					X
Bis(2-ethylhexyl)phthalate		X	X	X					
Chrysene	X	X	X	X					X
Dibenz(a,h)anthracene		X	X	X					
Fluoranthene	X	X	X	X					X
Fluorene	X	X	X	X					
Indeno[1,2,3-cd]pyrene									X
Naphthalene	X	X	X	X					
Phenanthrene	X	X	X	X					X
Pyrene	X	X	X	X					X
Extractable Petroleum Hydrocarbons									
Acenaphthene		X	X	X					
Anthracene		X	X	X					
Benzo[a]anthracene	X	X	X	X					
Benzo[a]pyrene	X	X	X	X					
Benzo[g,h,i]perylene		X	X	X					
Benzo[k]fluoranthene	X	X	X	X					
C11-C22 Aromatics	X	X	X	X					
C19-C36 Aliphatics	X	X	X	X					
C9-C18 Aliphatics	X	X	X	X					

Table 12
Summary of Oil or Hazardous Material of Potential Concern by Media and Area
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Media:	Soil				Groundwater			Surface Water	Sediment
Exposure Point: / OHMPC	Surface Soil (0 3 ft)	Subsurface Soil (3-15 ft)	Combined Soil (0- 15 ft)	All Depths	All Depths	On Property (<15 ft)	Off Property (<15 ft)	All	All Depths
Chrysene	X	X	X	X					
Dibenzo(a,h)anthracene		X	X	X					
Fluoranthene	X	X	X	X					
Fluorene		X	X	X					
Naphthalene	X	X	X	X					
Phenanthrene	X	X	X	X					
Pyrene	X	X	X	X					
Volatile Petroleum Hydrocarbons									
C9-C10 Aromatics		X	X	X					
C9-C12 Aliphatics		X	X	X					
Ethylbenzene		X	X	X					
m&p-Xylenes		X	X	X					
o-Xylene		X	X	X					
Toluene		X	X	X					
Metals									
Aluminum	X	X	X	X					
Antimony	X	X	X	X					
Arsenic								X	X
Barium	X	X	X	X				X	X
Beryllium	X	X	X	X					X
Cadmium									X
Chromium	X	X	X	X	X	X	X	X	X
Cobalt	X	X	X	X					
Copper	X	X	X	X				X	X
Hexavalent Chromium	X	X	X	X	X	X	X	X	X
Lead	X	X	X	X					X
Manganese	X	X	X	X				X	
Mercury	X	X	X	X					X
Nickel	X	X	X	X				X	X
Selenium	X	X	X	X					
Silver	X	X	X	X					
Thallium	X	X	X	X					
Vanadium	X	X	X	X					X
Zinc	X	X	X	X				X	X
Pesticides									
4,4'-DDE									X
4,4'-DDT									X

Notes and Abbreviations:

OHMPC - Oil or Hazardous Material of Potential Concern

X = indicates the chemical was selected as a chemical of potential concern for the associated media

1. Some chemicals were analyzed as part of multiple analytical methods, and so are listed under multiple OHMPC categories

2. COPC selection for soil and groundwater is shown on Tables 5 and 6 (soil) and 7 (groundwater). Chemicals detected in surface water and sediment were selected as COPC, unless they are essential nutrients
Soil and groudnwater COPCs were selected using the whole data sets (Tables 5 and 7, respectively); refer to Tables 2-4 (soil) and Tables 8 and 9 (groundwater) for the list of compounds detected in each soi
or groundwtaer exposure point.

Prepared by: CF 9/18/2020
Checked by: JPK 9/24/2020
Revised by; CF 3/18/2022
Checked by: KALS 6/14/2022

Table 12
Summary of Oil or Hazardous Material of Potential Concern by Media and Area
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Media:	Soil				Groundwater			Surface Water	Sediment
Exposure Point:	Surface Soil (0 3 ft)	Subsurface Soil (3-15 ft)	Combined Soil (0 15 ft)	All Depths	All Depths	On Property (<15 ft)	Off Property (<15 ft)	All	All Depths
OHMPC									
Volatile Organic Compounds									
1,1-Dichloroethane					X				
1,1-Dichloroethene					X	X			
1,1,1-Trichloroethane	X	X	X	X					
1,4-Dioxane								X	
2-Butanone					X	X			
Acetone					X	X	X	X	X
Carbon Disulfide					X				
Chloroethane					X	X			
cis-1,2-Dichloroethene	X	X	X	X	X	X	X	X	
Ethylbenzene	X	X	X	X					
Isopropylbenzene		X	X	X					
m&p-Xylenes	X	X	X	X					
Methyl Tert-Butyl Ether					X				
Methylene Chloride	X		X	X	X	X			
o-Xylene	X	X	X	X	X	X			
Tetrachloroethene	X	X	X	X	X	X		X	
Tetrahydrofuran					X				
Toluene	X	X	X	X	X				
trans-1,2-Dichloroethene					X	X	X		
Trichloroethene	X	X	X	X	X	X	X	X	X
Vinyl chloride		X	X	X	X	X			
SemiVolatile Organic Compounds									
2-Methylnaphthalene	X	X	X	X					
Acenaphthene	X	X	X	X					
Anthracene	X	X	X	X					
Benzo[a]anthracene	X	X	X	X					X
Benzo[a]pyrene	X	X	X	X					X
Benzo[b]fluoranthene									X
Benzo[g,h,i]perylene	X	X	X	X					X
Benzo[k]fluoranthene	X	X	X	X					X
BIS(2-ETHYLHEXYL)PHTHALATE		X	X	X					
Chrysene	X	X	X	X					X
Dibenz(a,h)anthracene		X	X	X					
Fluoranthene	X	X	X	X					X
Fluorene	X	X	X	X					
Indeno[1,2,3-cd]pyrene									X
Naphthalene	X	X	X	X					
Phenanthrene	X	X	X	X					X
Pyrene	X	X	X	X					X

Table 12
Summary of Oil or Hazardous Material of Potential Concern by Media and Area
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Media:	Soil				Groundwater			Surface Water	Sediment
Exposure Point: / OHMPC	Surface Soil (0 3 ft)	Subsurface Soil (3-15 ft)	Combined Soil (0 15 ft)	All Depths	All Depths	On Property (<15 ft)	Off Property (<15 ft)	All	All Depths
Extractable Petroleum Hydrocarbons									
C11-C22 Aromatics	X	X	X	X					
C19-C36 Aliphatics	X	X	X	X					
C9-C18 Aliphatics	X	X	X	X					
Volatile Petroleum Hydrocarbons									
C9-C10 Aromatics		X	X	X					
C9-C12 Aliphatics		X	X	X					
Metals									
Aluminum	X	X	X	X					
Antimony	X	X	X	X					
Arsenic								X	X
Barium	X	X	X	X				X	X
Beryllium	X	X	X	X					X
Cadmium									X
Chromium (III)	X	X	X	X	X	X	X	X	X
Cobalt	X	X	X	X					
Copper	X	X	X	X				X	X
Hexavalent Chromium	X	X	X	X	X	X	X	X	X
Lead	X	X	X	X					X
Manganese	X	X	X	X				X	
Mercury	X	X	X	X					X
Nickel	X	X	X	X				X	X
Selenium	X	X	X	X					
Silver	X	X	X	X					
Thallium	X	X	X	X					
Vanadium	X	X	X	X					X
Zinc	X	X	X	X				X	X
Pesticides									
4,4'-DDE									X
4,4'-DDT									X

Notes and Abbreviations:

OHMPC - Oil or Hazardous Material of Potential Concern

X = indicates the chemical was selected as a chemical of potential concern for the associated media

1. Some chemicals were analyzed as part of multiple analytical methods. For the purposes of this table, EPH target analytes are listed under SVOCs and VPH target analytes are listed under VOCs
   If a chemical was selected as a COPC using the results from any analytical method, it is selected as a COPC for that medium/exposure point
2. COPC selection for soil and groundwater is shown on Tables 5 and 6 (soil) and 7 (groundwater). Chemicals detected in surface water and sediment were selected as COPC, unless they are essential nutrients

Prepared by: CF 9/18/2020
Checked by: JPK 9/24/2020
Revised by; CF 3/18/2022

Table 13
Exposure Assumption Values Used for Daily Intake Calculation: Soil
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Scenario Timeframe: Current and Future Land Use
Medium: Soil
Exposure Medium: Soil and Fugitive Dust

Exposure Route	Receptor	Receptor Age	Exposure Points	Parameter Code	Parameter Definition	Value	Units	Rationale	Reference	Intake Equation (MassDEP, 2015)
Ingestion	Current Trespasser	11-18 yrs	0-3 ft and 3-15 ft	OHM_{soil}	Chemical Concentration in Soil	OHM Specific	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	
				IR	Ingestion Rate of Soil	50	mg/day	Default Child ingestion rate	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Ingestion:
				RAF	Relative Absorption Factor	OHM Specific	dimensionless	Chemical specific		
				EF	Exposure Frequency	0.164	event/day	2 days a week for 30 weeks	MassDEP, 2015	
				EP	Exposure Period	7	yr	Based on age range	MassDEP, 2015	$ADD_{ing} = \frac{[OHM]_{soil} \times IR \times RAF \times EF \times EP \times C}{BW \times AP}$
				BW	Body Weight	50.7	kg	Body Weight for 11-18 yrs old	MassDEP, 2015	
				AP-C	Averaging Period (Cancer)	70	years	Lifetime (70 years)	MassDEP, 2015	
				AP-N	Averaging Period (Non-Cancer)	7	yr	365 days for 7 years	MassDEP, 2015	
				CF1	Conversion Factor	1.0.E-06	kg/mg	-		
		11-12 yrs	0-3 ft and 3-15 ft	OHM_{soil}	Chemical Concentration in Soil	OHM Specific	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	
				IR	Ingestion Rate of Soil	50	mg/day	Default Child ingestion rate	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Ingestion:
				RAF	Relative Absorption Factor	OHM Specific	dimensionless	Chemical specific	MassDEP, 2015	
				EF	Exposure Frequency	0.286	event/day	2 days a week for 52 weeks	MassDEP, 2015	
				EP	Exposure Period	0.577	yr	30 weeks	MassDEP, 2015	$ADD_{ing} = \frac{[OHM]_{soil} \times IR \times RAF \times EF \times EP \times C}{BW \times AP}$
				BW	Body Weight	40.3	kg	Body Weight for 11-12 yrs old	MassDEP, 2015	
				AP-N	Averaging Period (Non-Cancer)	0.577	yr	30 weeks	MassDEP, 2015	
				CF1	Conversion Factor	1.0.E-06	kg/mg	-		
	Future Worker	Adult	0-3 ft and 3-15 ft	OHM_{soil}	Chemical Concentration in Soil	Arithmetic Mean or 95% UCL	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	
				IR-S	Ingestion Rate of Soil	100	mg/day	Outdoor worker value	USEPA, 2014	The equation for Average Daily Dose (ADD) for Ingestion:
				EF	Exposure Frequency	250	day/yr	Indoor worker value	MassDEP, 2015	
				EP	Exposure Period	27	yr	Indoor worker value	MassDEP, 2015	
				BW	Body Weight	58	kg	Construction worker value	MassDEP, 2015	$ADD_{ing} = \frac{[OHM]_{soil} \times IR \times RAF \times EF \times EP \times C}{BW \times AP}$
				AP-C	Averaging Period (Cancer)	25550	day	Lifetime (70 years)	MassDEP, 2015	
				AP-N	Averaging Period (Non-Cancer)	9855	day	365 days for 27 years	MassDEP, 2015	
				CF1	Conversion Factor	1.0.E-06	kg/mg	-		
	Future Construction Worker	Adult	0-15 ft	EPC	Exposure Point Concentration	chemical-specific	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	
				IR-S	Ingestion Rate of Soil	100	mg/day	Construction worker value	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Ingestion:
				EF	Exposure Frequency	260	day/yr	5 days a week for 52 weeks	MassDEP, 2015	
				EP	Exposure Period	0.5	yr	6 months	MassDEP, 2015	
				BW	Body Weight	58	kg	Construction worker value	MassDEP, 2015	$ADD_{ing} = \frac{EPC \times IR \times RAF \times EF \times ED \times EP \times C}{BW \times AT}$
				AP-C	Averaging Period (Cancer)	25550	day	Lifetime (70 years)	MassDEP, 2015	
				AP-N	Averaging Period (Non-Cancer)	182	day	6 months	MassDEP, 2015	
				CF1	Conversion Factor	1.0.E-06	kg/mg	-		
Dermal	Current Trespasser	11-18 yrs	0-3 ft and 3-15 ft	OHM_{soil}	Chemical Concentration in Soil	OHM Specific	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	
				SA	Skin Surface Area Available For Contact	2940	cm^2/day	Default child value	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Ingestion:
				RAF	Relative Absorption Factor	OHM Specific	dimensionless	Chemical specific	MassDEP, 2015	
				SAF	Surface Adherence Factor	0.14	mg/cm^2	Default child adherence factor	MassDEP, 2015	
				EF	Exposure Frequency	0.164	event/day	2 days a week for 30 weeks	MassDEP, 2015	
				EP	Exposure Period	7	yr	Based on age range	MassDEP, 2015	$ADD_{ing} = \frac{[OHM]_{soil} \times SA \times RAF \times SAF \times EF \times ED \times EP \times C}{BW \times AP}$
				BW	Body Weight	50.7	kg	Body Weight for 11-18 yrs old	MassDEP, 2015	
				AP-C	Averaging Period (Cancer)	70	years	Lifetime (70 years)	MassDEP, 2015	
				AP-N	Averaging Period (Non-Cancer)	7	yr	365 days for 7 years	MassDEP, 2015	
				CF1	Conversion Factor	1.0.E-06	kg/mg	-		

Table 13
Exposure Assumption Values Used for Daily Intake Calculation: Soil
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Scenario Timeframe: Current and Future Land Use
Medium: Soil
Exposure Medium: Soil and Fugitive Dust

Exposure Route	Receptor	Receptor Age	Exposure Points	Parameter Code	Parameter Definition	Value	Units	Rationale	Reference	Intake Equation (MassDEP, 2015)
		11-12 yrs	0-3 ft and 3-15 ft	OHM_{soil}	Chemical Concentration in Soil	OHM Specific	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	
				SA	Skin Surface Area Available For Contact	2477	cm^2/day	Default child value	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Ingestion:
				RAF	Relative Absorption Factor	OHM Specific	dimensionless	Chemical specific	MassDEP, 2015	
				SAF	Surface Adherence Factor	0.14	mg/cm^2	Default child adherence factor	MassDEP, 2015	
				EF	Exposure Frequency	0.286	event/day	2 days a week for 52 weeks	MassDEP, 2015	$ADD_{ing} = \frac{[OHM]_{soil} \times SA \times RAF \times SAF \times EF \times ED \times EP \times C}{BW \times AP}$
				EP	Exposure Period	0.577	yr	30 weeks	MassDEP, 2015	
				BW	Body Weight	40.3	kg	Body Weight for 11-12 yrs old	MassDEP, 2015	
				AP-N	Averaging Period (Non-Cancer)	0.577	yr	30 weeks	MassDEP, 2015	
				CF1	Conversion Factor	1.0.E-06	kg/mg	-		
Dermal	Future Worker	Adult	0-3 ft and 3-15 ft	OHM_{soil}	Chemical Concentration In Soil	Arithmetic Mean or 95% UCL	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	
(cont'd)				SAF	Surface Adherence Factor	0.12	mg/cm^2-event	Outdoor worker value	USEPA, 2014	
				RAF	Relative Absorption Factor	chemical-specific	unitless	Chemical specific	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Dermal Contact:
				SA	Skin Surface Area Available For Contact	3473	cm^2	Construction worker value	MassDEP, 2015	
				EF	Exposure Frequency	250	day/yr	Indoor worker value	MassDEP, 2015	
				EP	Exposure Period	27	yr	Indoor worker value	MassDEP, 2015	$ADD_{derm} = \frac{[OHM]_{soil} \times SA \times RAF_{derm} \times SAF \times EF \times EP \times C}{BW \times AP}$
				BW	Body Weight	58	kg	Construction worker value	MassDEP, 2015	
				AP-C	Averaging Period (Cancer)	25550	day	Lifetime (70 years)	MassDEP, 2015	
				AP-N	Averaging Period (Non-Cancer)	9855	day	365 days for 27 years	MassDEP, 2015	
				CF	Conversion Factor	1.0E-06	kg/mg	-		
	Future Construction Worker	Adult	0-15 ft	OHM_{soil}	Chemical Concentration In Soil	Arithmetic Mean or 95% UCL	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	
				SAF	Surface Adherence Factor	0.29	mg/cm^2-event	Construction worker value	MassDEP, 2015	
				RAF	Relative Absorption Factor	chemical-specific	unitless	Chemical specific	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Dermal Contact:
				SA	Skin Surface Area Available For Contact	3473	cm^2	Construction worker value	MassDEP, 2015	
				EF	Exposure Frequency	260	day/yr	5 days a week for 52 weeks	MassDEP, 2015	
				EP	Exposure Period	0.5	yr	6 months	MassDEP, 2015	$ADD_{derm} = \frac{[OHM]_{soil} \times SA \times AF \times RAF_{derm} \times SAF \times EF \times ED \times EP \times C}{BW \times AP}$
				BW	Body Weight	58	kg	Construction worker value	MassDEP, 2015	
				AP-C	Averaging Period (Cancer)	25550	day	Lifetime (70 years)	MassDEP, 2015	
				AP-N	Averaging Period (Non-Cancer)	182	day	6 months	MassDEP, 2015	
				CF	Conversion Factor	1.0E-06	kg/mg	-		
Dust Inhalation	Future Worker	Adult	0-3 ft and 3-15 ft	OHM_{soil}	Chemical Concentration in Soil	Arithmetic Mean or 95% UCL	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	Equation for conversion of [OHM]soil into [OHM]air:
				OHM_{air}	Concentration in Air	calculated	ug/m^3	Chemical specific	MassDEP, 2015	$[OHM]_{air} = [OHM]_{soil} \times PM10 \times C1$
				EF	Exposure Frequency	250	day/yr	Indoor worker value	MassDEP, 2015	
				EP	Exposure Period	27	yr	Indoor worker value	MassDEP, 2015	
				ED	Exposure Duration	8	hr/day	Typical work day	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Inhalation of Particulates:
				VR	Ventilation Rate	1.2	m^3/hour	Adult Rate - Light Exertion	MassDEP, 1995	
				BW	Body Weight	58	kg	Construction worker value	MassDEP, 2015	$ADD_{\text{inh-gi}} = \frac{[OHM]_{air} \times 1.5 \times VR \times RAF \times EF \times ED \times EP}{BW \times AT}$
				AP-C	Averaging Period (Cancer)	25550	day	Lifetime (70 years)	MassDEP, 2015	
				AP-N	Averaging Period (Non-Cancer)	9855	day	365 days for 27 years	MassDEP, 2015	
				PM10	Respirable Particulate Concentration	3.20E-02	mg/m^3	Open Field PM10	MassDEP, 1995	$ADD_{\text{inh}} = \frac{[OHM]_{air} \times 0.5 \times VR \times RAF \times EF \times ED \times EP}{BW \times AT}$
				C1	Conversion Factor	1.0E-06	kg/mg			

Table 13
Exposure Assumption Values Used for Daily Intake Calculation: Soil
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Scenario Timeframe: Current and Future Land Use
Medium: Soil
Exposure Medium: Soil and Fugitive Dust

Exposure Route	Receptor	Receptor Age	Exposure Points	Parameter Code	Parameter Definition	Value	Units	Rationale	Reference	Intake Equation (MassDEP, 2015)
Dust Inhalation (cont'd)	Future Construction Worker	Adult	0-15 ft	OHM_{soil}	Chemical Concentration in Soil	Arithmetic Mean or 95% UCL	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	Equation for conversion of [OHM]soil into [OHM]air:
				OHM_{air}	Concentration in Air	calculated	ug/m^3	Chemical specific	MassDEP, 2015	$[OHM]_{air} = [OHM]_{soil} \times PM10 \times C1$
				EFo	Exposure Frequency	260	day/yr	5 days a week for 52 weeks	MassDEP, 2015	
				EP	Exposure Period	0.5	yr	6 months	MassDEP, 2015	
				ED	Exposure Duration	8	hr/day	Typical work day	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Inhalation of Particulates:
				VR	Ventilation Rate	3.6	m^3/hour	Adult Rate - Heavy Exertion (60 L/min)	MassDEP, 2015	$ADD_{inh-gi} = \frac{EPC \times 1.5 \times PM10 \times VR \times RAF \times EF \times ED \times EP \times C2 \times C3 \times C4}{BW \times AP}$
				BW	Body Weight	58	kg	Construction worker value	MassDEP, 2015	
				AP-C	Averaging Period (Cancer)	25550	day	Lifetime (70 years)	MassDEP, 2015	
				AP-N	Averaging Period (Non-Cancer)	182	day	6 months	MassDEP, 2015	
				PM10	Respirable Particulate Concentration	6.00E-02	mg/m^3	Excavation Scenario	MassDEP, 2015	$ADD_{inh} = \frac{EPC \times 0.5 \times PM10 \times VR \times RAF \times EF \times ED \times EP \times C2 \times C3 \times C4}{BW \times AP}$
				C2	Conversion Factor	1.0E-09	kg/µg			
				C3	Conversion Factor	1440	min/days			
				C4	Conversion Factor	1.0E-03	m^3/L			
				C1	Conversion Factor	1.0E-06	kg/mg			

Notes:

EPC - Exposure Point Concentrations for soil are presented in Tables 17-19.

Soil exposure points are on-property soil; off-property soil is not part of the Disposal Site.

References:

MassDEP, 1995. Massachusetts Department of Environmental Protection (MassDEP). Guidance for Disposal Site Risk Characterization - In Support of the Massachusetts Contingency Plan. Interim Final Policy. WSC/ORS-95-141. July.

MassDEP, 2015. Shortforms for Human Health Risk Assessment under the MCP. (March, 2015).

USEPA, 2014. OSWER Directive 9200.1-120. Attachment 1. Recommended Default Exposure Factors (2014).

Exposure duration not included in ingestion and dermal assumptions due to value being 1 event per day.

Prepared by: CF 10/2/2020

Checked by: KALS 6/14/2022

Table 14
Exposure Assumption Values Used for Daily Intake Calculation: Groundwater and Excavation Air
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Scenario Timeframe: Current and Future Land Use
Medium: Groundwater
Exposure Medium: Groundwater and Excavation Air

Exposure Route	Receptor	Receptor Age	Exposure Points	Parameter Code	Parameter Definition	Value	Units	Rationale	Reference	Intake Equation (MassDEP, 2015)
Ingestion/Dermal	Construction Worker	Adult	On- and Off-Property	IRgw	Groundwater Ingestion Rate	0.01	L/d	Professional judgement	-	The equation for Average Daily Dose (ADD) for Ingestion:
				SA	Groundwater Dermal Contact Skin Exposed	817	cm2	Median value of hands for females	MassDEP, 1995	$ADD_{ing} = \frac{[OHM]_{gw} \times IR \times RAF \times EF \times EP \times C}{BW \times AT}$
				EF	Groundwater Exposure Frequency	130	d/yr	5 days a week for 26 weeks	MassDEP S-3 Standards	
				EP	Groundwater Exposure Period	1	yr	One year	MassDEP S-3 Standards	
				ATc	Groundwater Averaging Time - Cancer	25550	day	Lifetime (70 years)	MassDEP S-3 Standards	The equation for Average Daily Dose (ADD) for Dermal Contact:
				ATn	Groundwater Averaging Time - Non-Cancer	182	day	six month construction duration	MassDEP S-3 Standards	
				ET	Groundwater Dermal Contact Exposure Time	2	hr/d	Professional judgement	-	$ADD_{der} = \frac{C_{gw} \times CF \times SA \times K_p \times ET \times RAF_{dw} \times EF \times EP}{AT \times BW}$
				BW	Body Weight	58	kg	Body weight female aged 18-25	MassDEP S-3 Standards	
				CF	Conversion Factor	1.00E-03	L/cm3	-	-	
Excavation Air	Construction Worker	Adult	On- and Off-Property	ET	Outdoor Air Exposure Time - Volatiles	8	hr/d	Professional judgement - typical workday	-	
				EF	Outdoor Air Exposure Frequency - Volatiles	130	d/y	5 days a week for 26 weeks	MassDEP S-3 Standards	The equation for Average Daily Exposure (ADE) for Inhalation:
				EP	Outdoor Air Exposure Period - Volatiles	1	yr	One construction event per year	MassDEP S-3 Standards	
				ATc	Outdoor Air Averaging Time - Cancer - Volatiles	70	yr	Lifetime (70 years)	MassDEP S-3 Standards	$ADE_{inh} = \frac{C_{air} \times RAF_i \times ET \times EF \times EP}{24hr/d \times 365d/y \times AT}$
				ATn	Outdoor Air Averaging Time - Non-Cancer - Volatiles	0.5	yr	six month construction duration	MassDEP S-3 Standards	
				C	Conversion Factor	1000	ug/mg	-	-	

Prepared by: CF 10/2/2020
Checked by: KALS 6/14/2022

Notes:

EPC - Exposure Point Concentrations for groundwater and excavation air are presented in Table 20.

References:

MassDEP, 1995. Massachusetts Department of Environmental Protection (MassDEP). Guidance for Disposal Site Risk Characterization - In Support of the Massachusetts Contingency Plan. Interim Final Policy. WSC/ORS-95-141. July.

Table 15
Exposure Assumption Values Used for Daily Intake Calculation: Surface Water and Sediment
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Scenario Timeframe: Current and Future Land Use
Medium: Surface Water and Sediment
Exposure Medium: Surface Water and Sediment

Exposure Route	Receptor	Receptor Age	Exposure Points	Parameter Code	Parameter Definition	Value	Units	Rationale	Reference	Intake Equation (MassDEP, 2015)
Ingestion of Surface Water	Resident	15-31	On-Property	IR-SW	Ingestion Rate of Surface Water	0.015	L/day	Upper bound estimate based on Table 3-96	USEPA, 2019	The equation for Average Daily Dose (ADD) for Ingestion: $ADD_{ing} = \frac{C_{sw} \times IR_{sw} \times RAF_{ow} \times EF \times EP}{AT \times BW}$
				RAF	Relative Absorption Factor	OHM Specific	dimensionless	Chemical specific	MassDEP, 2015	
				EF	Exposure Frequency	60	event/day	2 days/week, 30 weeks/yr	MassDEP, 2015	
				EP	Exposure Period	16	yr	Based on age range	MassDEP, 2015	
				BW	Body Weight	58.7	kg	Value for Park Visitor 15-31 yrs	MassDEP, 2015	
				AT-C	Averaging Time (Cancer)	25550	day	Lifetime (70 years)	MassDEP, 2015	
				AT-N	Averaging Time (Non-Cancer)	5840	Day	365 days for 16 years	MassDEP, 2015	
				CF1	Conversion Factor	1.0.E-03	L/cm^3	-		
		8-15	On-Property	IR-SW	Ingestion Rate of Surface Water	0.015	L/day	Upper bound estimate based on Table 3-96	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Ingestion: $ADD_{ing} = \frac{C_{sw} \times IR_{sw} \times RAF_{ow} \times EF \times EP}{AT \times BW}$
				RAF	Relative Absorption Factor	OHM Specific	dimensionless	Chemical specific	MassDEP, 2015	
				EF	Exposure Frequency	60	day/yr	2 days/week, 30 weeks/yr	MassDEP, 2015	
				EP	Exposure Period	7	yr	Based on age range	MassDEP, 2015	
				BW	Body Weight	39.9	kg	Value for Park Visitor 8-15 yrs	MassDEP, 2015	
				AT-C	Averaging Time (Cancer)	25550	day	Lifetime (70 years)	MassDEP, 2015	
				AT-N	Averaging Time (Non-Cancer)	2555	day	365 days for 7 years	MassDEP, 2015	
				CF1	Conversion Factor	1.0.E-03	L/cm^3	-		
		1-8	On-Property	IR-SW	Ingestion Rate of Surface Water	0.015	L/day	Upper bound estimate based on Table 3-96	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Ingestion: $ADD_{ing} = \frac{C_{sw} \times IR_{sw} \times RAF_{ow} \times EF \times EP}{AT \times BW}$
				RAF	Relative Absorption Factor	OHM Specific	dimensionless	Chemical specific	MassDEP, 2015	
				EF	Exposure Frequency	60	day/yr	2 days/week, 30 weeks/yr	MassDEP, 2015	
				EP	Exposure Period	7	yr	Based on age range	MassDEP, 2015	
				BW	Body Weight	17	kg	Value for Park Visitor 1-8 yrs	MassDEP, 2015	
				AT-C	Averaging Time (Cancer)	25550	day	Lifetime (70 years)	MassDEP, 2015	
				AT-N	Averaging Time (Non-Cancer)	2555	day	365 days for 7 years	MassDEP, 2015	
				CF1	Conversion Factor	1.0.E-03	L/cm^3	-		
	Trespasser	11-18 yrs	On-Property	IR-SW	Ingestion Rate of Surface Water	0.015	L/day	Upper bound estimate based on Table 3-96	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Ingestion: $ADD_{ing} = \frac{C_{sw} \times IR_{sw} \times RAF_{ow} \times EF \times EP}{AT \times BW}$
				RAF	Relative Absorption Factor	OHM Specific	dimensionless	Chemical specific	MassDEP, 2015	
				EF	Exposure Frequency	60	event/day	2 days/week, 30 weeks/yr	MassDEP, 2015	
				EP	Exposure Period	7	yr	Based on age range	MassDEP, 2015	
				BW	Body Weight	50.7	kg	Trespasser value for 11-18 yrs	MassDEP, 2015	
				AT-C	Averaging Time (Cancer)	25550	day	Lifetime (70 years)	MassDEP, 2015	
				AT-N	Averaging Time (Non-Cancer)	2555	day	365 days for 7 years	MassDEP, 2015	
				CF1	Conversion Factor	1.0.E-03	L/cm^3	-		
Dermal Contact with Surface Water	Resident	15-31	On-Property	RAF	Relative Absorption Factor	OHM Specific	unitless	Chemical specific	MassDEP, 2015	The equation for Lifetime Average Daily Dose (LADD) for Dermal Contact: $ADD_{der} = \frac{C_{sw} \times CF \times SA \times K_p \times ET \times RAF_{dw} \times EF \times EP}{AT \times BW}$
				SA	Skin Surface Area Available For Contact	5653	cm^2/day	Value for Park Visitor 15-31 yrs	MassDEP, 2015	
				ET	Exposure Time	1	hr	Professional judgement	MassDEP, 2015	
				EF	Exposure Frequency	60	day/yr	2 days/week, 30 weeks/yr	MassDEP, 2015	
				EP	Exposure Period	16	yr	Based on age range	MassDEP, 2015	
				BW	Body Weight	58.7	kg	Value for Park Visitor 15-31 yrs	MassDEP, 2015	
				AT-C	Averaging Time (Cancer)	25550	day	Lifetime (70 years)	MassDEP, 2015	
				AT-N	Averaging Time (Non-Cancer)	5840	Day	365 days for 16 years	MassDEP, 2015	
				CF	Conversion Factor	1.0.E-03	L/cm^3	-		

Table 15
Exposure Assumption Values Used for Daily Intake Calculation: Surface Water and Sediment
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Scenario Timeframe: Current and Future Land Use
Medium: Surface Water and Sediment
Exposure Medium: Surface Water and Sediment

Exposure Route	Receptor	Receptor Age	Exposure Points	Parameter Code	Parameter Definition	Value	Units	Rationale	Reference	Intake Equation (MassDEP, 2015)
Dermal Contact with Surface Water	Resident (cont.)	8-15	On- Property	RAF	Relative Absorption Factor	OHM Specific	unitless	Chemical specific	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Dermal Contact: $ADD_{der} = \frac{C_{sw} \times CF \times SA \times K_p \times ET \times RAF_{dw} \times EF \times EP}{AT \times BW}$
				SA	Skin Surface Area Available For Contact	4427	cm2/day	Value for Park Visitor 8-15 yrs	MassDEP, 2015	
				ET	Exposure Time	1	hr	Professional judgement	MassDEP, 2015	
				EF	Exposure Frequency	60	day/yr	2 days/week, 30 weeks/yr	MassDEP, 2015	
				EP	Exposure Period	7	yr	Based on age range	MassDEP, 2015	
				BW	Body Weight	39.9	kg	Value for Park Visitor 8-15 yrs	MassDEP, 2015	
				AT-C	Averaging Time (Cancer)	25550	day	Lifetime (70 years)	MassDEP, 2015	
				AT-N	Averaging Time (Non-Cancer)	2555	day	365 days for 7 years	MassDEP, 2015	
				CF	Conversion Factor	1.0.E-03	L/cm^3	-		
		1-8	On-Property	RAF	Relative Absorption Factor	OHM Specific	unitless	Chemical specific	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Dermal Contact: $ADD_{der} = \frac{C_{sw} \times CF \times SA \times K_p \times ET \times RAF_{dw} \times EF \times EP}{AT \times BW}$
				SA	Skin Surface Area Available For Contact	2431	cm2/day	Value for Park Visitor 1-8 yrs	MassDEP, 2015	
				ET	Exposure Time	1	hr	Professional judgement	MassDEP, 2015	
				EF	Exposure Frequency	60	day/yr	2 days/week, 30 weeks/yr	MassDEP, 2015	
				EP	Exposure Period	7	yr	Based on age range	MassDEP, 2015	
				BW	Body Weight	17	kg	Value for Park Visitor 1-8 yrs	MassDEP, 2015	
				AT-C	Averaging Time (Cancer)	25550	day	Lifetime (70 years)	MassDEP, 2015	
				AT-N	Averaging Time (Non-Cancer)	2555	day	365 days for 7 years	MassDEP, 2015	
				CF	Conversion Factor	1.0.E-03	L/cm^3	-		
	Trespasser	11-18 yrs	On- Property	RAF	Relative Absorption Factor	OHM Specific	dimensionless	Chemical specific	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Dermal Contact: $ADD_{der} = \frac{C_{sw} \times CF \times SA \times K_p \times ET \times RAF_{dw} \times EF \times EP}{AT \times BW}$
				SA	Skin Surface Area Available For Contact	2940	cm2/day	Trespasser value for 11-18 yrs	MassDEP, 2015	
				ET	Exposure Time	1	hr	Professional judgement	MassDEP, 2015	
				EF	Exposure Frequency	60	day/year	2 days/week, 30 weeks/yr	MassDEP, 2015	
				EP	Exposure Period	7	yr	7 years	MassDEP, 2015	
				BW	Body Weight	50.7	kg	Trespasser value for 11-18 yrs	MassDEP, 2015	
				AT-C	Averaging Time (Cancer)	25550	day	Lifetime (70 years)	MassDEP, 2015	
				AT-N	Averaging Time (Non-Cancer)	2555	day	365 days for 7 years	MassDEP, 2015	
				CF	Conversion Factor	1.0.E-03	L/cm^3	-		
Ingestion of Sediment	Resident	15-31	On- Property	OHM_{sed}	Chemical Concentration in Soil	OHM Specific	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	The equation for Average Daily Dose (ADD) for Ingestion: $LADD_{ing} = \frac{[OHM]_{sed} \times IR \times RAF \times EF \times EP \times C}{BW \times AP}$
				IR-S	Ingestion Rate of Sediment	50	mg/day	Value for Park Visitor 15-31 yrs	USEPA, 2014	
				EF	Exposure Frequency	60	day/year	2 days/week, 30 weeks/yr	MassDEP, 2015	
				EP	Exposure Period	16	yr	Based on age range	MassDEP, 2015	
				BW	Body Weight	58.7	kg	Value for Park Visitor 15-31 yrs	MassDEP, 2015	
				AT-C	Averaging Time (Cancer)	70	day	Lifetime (70 years)	MassDEP, 2015	
				AT-N	Averaging Time (Non-Cancer)	5840	day	365 days for 16 years	MassDEP, 2015	
				CF	Conversion Factor	1.0.E-06	kg/mg	-		
		8-15	On-Property	OHM_{sed}	Chemical Concentration in Soil	OHM Specific	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	The equation for Average Daily Dose (ADD) for Ingestion: $ADD_{ing} = \frac{[OHM]_{sed} \times IR \times RAF \times EF \times EP \times C}{BW \times AP}$
				IR-S	Ingestion Rate of Sediment	50	mg/day	Value for Park Visitor 8-15 yrs	MassDEP, 2015	
				EF	Exposure Frequency	60	day/year	2 days/week, 30 weeks/yr	MassDEP, 2015	
				EP	Exposure Period	7	yr	Based on age range	MassDEP, 2015	
				BW	Body Weight	39.9	kg	Value for Park Visitor 8-15 yrs	MassDEP, 2015	
				AT-C	Averaging Time (Cancer)	70	day	Lifetime (70 years)	MassDEP, 2015	
				AT-N	Averaging Time (Non-Cancer)	2555	day	365 days for 7 years	MassDEP, 2015	
				CF	Conversion Factor	1.0.E-06	kg/mg	-		

Table 15
Exposure Assumption Values Used for Daily Intake Calculation: Surface Water and Sediment
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Scenario Timeframe: Current and Future Land Use
Medium: Surface Water and Sediment
Exposure Medium: Surface Water and Sediment

Exposure Route	Receptor	Receptor Age	Exposure Points	Parameter Code	Parameter Definition	Value	Units	Rationale	Reference	Intake Equation (MassDEP, 2015)
Ingestion of Sediment	Resident (cont.)	1-8	On-Property	OHM_{sed}	Chemical Concentration in Soil	OHM Specific	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	
				IR-S	Ingestion Rate of Sediment	100	mg/day	Value for Park Visitor 1-8 yrs	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Ingestion:
				EF	Exposure Frequency	60	day/year	2 days/week, 30 weeks/yr	MassDEP, 2015	$ADD_{ing} = \frac{[OHM]_{sed} \times IR \times RAF \times EF \times EP \times C}{BW \times AP}$
				EP	Exposure Period	7	yr	Based on age range	MassDEP, 2015	
				BW	Body Weight	17	kg	Value for Park Visitor 1-8 yrs	MassDEP, 2015	
				AT-C	Averaging Time (Cancer)	70	day	Lifetime (70 years)	MassDEP, 2015	
				AT-N	Averaging Time (Non-Cancer)	2555	day	365 days for 7 years	MassDEP, 2015	
				CF	Conversion Factor	1.0.E-06	kg/mg	-		
	Trespasser	11-18 yrs	On-Property	OHM_{sed}	Chemical Concentration in Soil	OHM Specific	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	
				IR-S	Ingestion Rate of Sediment	50	mg/day	Trespasser value for 11-18 yrs	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Ingestion:
				EF	Exposure Frequency	60	day/year	2 days/week, 30 weeks/yr	MassDEP, 2015	$ADD_{ing} = \frac{[OHM]_{sed} \times IR \times RAF \times EF \times ED \times EP \times C}{BW \times AP}$
				EP	Exposure Period	7	yr	Based on age range	MassDEP, 2015	
				BW	Body Weight	50.7	kg	Trespasser value for 11-18 yrs	MassDEP, 2015	
				AT-C	Averaging Time (Cancer)	70	day	Lifetime (70 years)	MassDEP, 2015	
				AT-N	Averaging Time (Non-Cancer)	2555	day	365 days for 7 years	MassDEP, 2015	
				CF	Conversion Factor	1.0.E-06	kg/mg	-		
Dermal Contact with Sediment	Resident	15-31	On-Property	OHM_{sed}	Chemical Concentration In Soil	OHM Specific	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	
				SAF	Surface Adherence Factor	1	mg/cm²	Default value	USEPA, 2014	
				RAF	Relative Absorption Factor	OHM Specific	unitless	Chemical specific	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Dermal Contact:
				SA	Skin Surface Area Available For Contact	5653	cm^2/day	Value for Park Visitor 15-31 yrs	MassDEP, 2015	$ADD_{derm} = \frac{[OHM]_{sed} \times SA \times RAF_{derm} \times SAF \times EF \times ED \times EP \times C}{BW \times AP}$
				EF	Exposure Frequency	60	day/year	2 days/week, 30 weeks/yr	MassDEP, 2015	
				EP	Exposure Period	16	yr	Based on age range	MassDEP, 2015	
				BW	Body Weight	58.7	kg	Value for Park Visitor 15-31 yrs	MassDEP, 2015	
				AT-C	Averaging Time (Cancer)	70	day	Lifetime (70 years)	MassDEP, 2015	
				AT-N	Averaging Time (Non-Cancer)	5840	day	365 days for 16 years	MassDEP, 2015	
				CF	Conversion Factor	1.0.E-06	kg/mg	-		
		8-15	On-Property	OHM_{sed}	Chemical Concentration In Soil	OHM Specific	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	
				SAF	Surface Adherence Factor	1	mg/cm²	Default value	MassDEP, 2015	
				RAF	Relative Absorption Factor	OHM Specific	unitless	Chemical specific	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Dermal Contact:
				SA	Skin Surface Area Available For Contact	4427	cm2/day	Value for Park Visitor 8-15 yrs	MassDEP, 2015	$ADD_{derm} = \frac{[OHM]_{sed} \times SA \times RAF_{derm} \times SAF \times EF \times ED \times EP \times C}{BW \times AP}$
				EF	Exposure Frequency	60	day/year	2 days/week, 30 weeks/yr	MassDEP, 2015	
				EP	Exposure Period	7	yr	Based on age range	MassDEP, 2015	
				BW	Body Weight	39.9	kg	Value for Park Visitor 8-15 yrs	MassDEP, 2015	
				AT-C	Averaging Time (Cancer)	70	day	Lifetime (70 years)	MassDEP, 2015	
				AT-N	Averaging Time (Non-Cancer)	2555	day	365 days for 7 years	MassDEP, 2015	
				CF	Conversion Factor	1.0.E-06	kg/mg	-		

Table 15
Exposure Assumption Values Used for Daily Intake Calculation: Surface Water and Sediment
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Scenario Timeframe: Current and Future Land Use
Medium: Surface Water and Sediment
Exposure Medium: Surface Water and Sediment

Exposure Route	Receptor	Receptor Age	Exposure Points	Parameter Code	Parameter Definition	Value	Units	Rationale	Reference	Intake Equation (MassDEP, 2015)
Dermal Contact with Sediment	Resident (cont.)	1-8	On-Property	OHM_{sed}	Chemical Concentration In Soil	OHM Specific	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	
				SAF	Surface Adherence Factor	1	mg/cm²	Default value	MassDEP, 2015	
				RAF	Relative Absorption Factor	OHM Specific	unitless	Chemical specific	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Dermal Contact:
				SA	Skin Surface Area Available For Contact	2431	cm2/day	Value for Park Visitor 1-8 yrs	MassDEP, 2015	$ADD_{derm} = \frac{[OHM]_{sed} \times SA \times RAF_{derm} \times SAF \times EF \times ED \times EP \times C}{BW \times AP}$
				EF	Exposure Frequency	60	day/year	2 days/week, 30 weeks/yr	MassDEP, 2015	
				EP	Exposure Period	7	yr	Based on age range	MassDEP, 2015	
				BW	Body Weight	17	kg	Value for Park Visitor 1-8 yrs	MassDEP, 2015	
				AT-C	Averaging Time (Cancer)	70	day	Lifetime (70 years)	MassDEP, 2015	
				AT-N	Averaging Time (Non-Cancer)	2555	day	365 days for 7 years	MassDEP, 2015	
				CF	Conversion Factor	1.0.E-06	kg/mg	-		
	Trespasser	11-18 yrs	On-Property	OHM_{sed}	Chemical Concentration in Soil	OHM Specific	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	The equation for Average Daily Dose (ADD) for Dermal Contact:
				SAF	Surface Adherence Factor	1	mg/cm^2	Default value	MassDEP, 2015	
				RAF	Relative Absorption Factor	OHM Specific	dimensionless	Chemical specific	MassDEP, 2015	
				SA	Skin Surface Area Available For Contact	2940	cm^2/day	Trespasser value for 11-18 yrs	MassDEP, 2015	$ADD_{derm} = \frac{[OHM]_{sed} \times SA \times RAF_{derm} \times SAF \times EF \times ED \times EP \times C}{BW \times AP}$
				EF	Exposure Frequency	60	day/year	2 days/week, 30 weeks/yr	MassDEP, 2015	
				EP	Exposure Period	7	yr	Based on age range	MassDEP, 2015	
				BW	Body Weight	50.7	kg	Trespasser value for 11-18 yrs	MassDEP, 2015	
				AT-C	Averaging Time (Cancer)	70	day	Lifetime (70 years)	MassDEP, 2015	
				AT-N	Averaging Time (Non-Cancer)	2555	day	365 days for 7 years	MassDEP, 2015	
				CF1	Conversion Factor	1.0.E-06	kg/mg	-		
		11-12 yrs	On- Property	OHM_{soil}	Chemical Concentration in Soil	OHM Specific	mg/kg	Chemical specific - See EPC tables for calculation details.	MassDEP, 2015 (310 CMR 40.0926)	
				SA	Skin Surface Area Available For Contact	2477	cm^2/day	Default child value	MassDEP, 2015	The equation for Average Daily Dose (ADD) for Dermal Contact:
				RAF	Relative Absorption Factor	OHM Specific	dimensionless	Chemical specific	MassDEP, 2015	
				SAF	Surface Adherence Factor	1	mg/cm^2	Default child adherance factor	MassDEP, 2015	$ADD_{derm} = \frac{[OHM]_{sed} \times SA \times RAF_{derm} \times SAF \times EF \times ED \times EP \times C}{BW \times AP}$
				ED	Exposure Duration	1	day/event	Typical work day	MassDEP, 2015	
				EF	Exposure Frequency	0.286	event/day	5 days a week for 52 weeks	MassDEP, 2015	
				EP	Exposure Period	0.577	yr	6 months	MassDEP, 2015	
				BW	Body Weight	40.3	kg	Body weight for 11-12 yrs old	MassDEP, 2015	
				AP-N	Averaging Period (Non-Cancer)	0.577	years	6 months	MassDEP, 2015	
				CF1	Conversion Factor	1.0.E-03	kg/mg	-		

Prepared by: KALS 6/16/2022
Checked by: CF 6/23/2022

Notes:

EPC - Exposure Point Concentrations for sediment and surface water are presented in Table 21.

References:

MassDEP, 1995. Massachusetts Department of Environmental Protection (MassDEP). Guidance for Disposal Site Risk Characterization - In Support of the Massachusetts Contingency Plan. Interim Final Policy. WSC/ORS-95-141. July.
MassDEP, 2015. Shortforms for Human Health Risk Assessment under the MCP. (March, 2015).
USEPA, 2014. OSWER Directive 9200.1-120. Attachment 1. Recommended Default Exposure Factors (2014).
Exposure duration not included in ingestion and dermal assumptions due to value being 1 event per day.

Table 16
Hot Spot Evaluation: Soil
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Sample ID	Location ID	Sample Date	Depth (ft)	Potential Hot Spot Chemical	Samples used in the calculation of the average of surrounding samples	Potential Hot Spot Concentration (mg/kg)	Average of Surrounding Samples (mg/kg)	Ratio of Potential Hot Spot to Surrounding Average	Hot Spot (Y/N) (a)
Metals	C022607-BS1	B-S1	2/26/2007	3 - 5	Antimony	B-91, B-93A, B-94, B-95, B-96, B-97, B-S2	**39**	**2.7**	15	N
	B4 (10-11)	B-04	9/16/2003	10 - 11	Hexavalent Chromium	B-26, B-47, B-48, B-74	**396**	**70**	6	N
	B10 (7-9)	B-10	9/17/2003	7 - 9		B-11, B-12, B-38, B-82, B-83	**203**	**19**	11	N
	C052405-B100S2	B-100	5/24/2005	4 - 6		A-B1, A-B2, A-S2	**260**	**47**	6	N
	C101104-B72-S2A	B-72	10/11/2004	5 - 7		B-59, B-73	**330**	**110**	3	N
	C101104-B73-S2A	B-73	10/11/2004	5 - 6		B-26, B-48, B-59, B-72	**220**	**100**	2	N
	C052405-B91S2	B-91	5/24/2005	4 - 7		B-72, B-73, B-92, B-96, B-97, B-B1, B-B2, B-S1	**300**	**211**	1	N
	C052405-B92S2	B-92	5/24/2005	5 - 7		B-72, B-73, B-91, B-96, B-97, B-B1, B-B2, B-S1	**590**	**168**	4	N
	C022607-BS1	B-S1	2/26/2007	3 - 5		B-91, B-93A, B-94, B-95, B-96, B-97, B-S2	**410**	**63**	6	N
	C022207-FS1	F-S1	2/22/2007	4 - 11		F-S2, F-S3, F-S4	**220**	**24**	9	N
	C101104-B72-S2A (B-72), C101104-B73-S2A (B-73), C052405-B91S2 (B-91), C052405-B92S2 (B-92), C022607-BS1 (B-S1) (potential combined hot spot)					B-59, B-93, B-93A, B-96, B-97, B-B1, B-B2	**370**	**27**	14	N
	C022707-AB1	A-B1	2/27/2007	3 - 3	Lead	A-B2, A-S1, A-S2, B-100, B-B2	**1800**	**212**	9	N
	C100604-B59-S5	B-59	10/6/2004	6 - 7		B-62, B-63, B-72, B-73	**1500**	**46**	33	N
	C022607-BS2	B-S2	2/26/2007	3 - 5		A-S3, B-100, B-72, B-93A, B-94, B-95, B-96, B-B2, B-B3	**730**	**98**	7	N
VOCs	C022307-PRA1B3	PRA1-B3	2/23/2007	5 - 6	Xylenes	PRA1-B1, PRA1-B2, PRA1-S1, PRA1-S2, PRA1-S3, PRA1-S4, PRA1-S5, PRA1-S6	**1800**	**40**	45	N
VPH							**3100**	**19**	162	Y*

Notes:

Prepared by: CF 9/9/2020

Checked by: JPK 9/23/2020

Potential hot spots included in this table were identified as chemical concentrations that were higher than an applicable standard, either S-2/GW-3 (for soil 0-3 ft bgs) or S-3/GW-3 (for soil below 3 ft bgs). In addition, chemicals where the maximum detect was less than 100 times the minimum detect were not evaluated because they would be below the critieron for being a hot spot. In these cases, there were not non-detect values in the areas around the elevated concentrations that would otherwise suggest that these concentrations might be a potential hot spot.

(a) Potential Hot Spots were evaluated based on whether the hot spot concentration was more than 100 times the surrounding average concentration. If the Hot Spot was less than 100 times the value of the average of the surrounding samples, it is not a Hot Spot.

* While this result was identified as a Hot Spot per the definition, because it constituted one sample result, overall it was not considered to be a Hot Spot.

Table 17
Exposure Point Concentrations: Surface Soil (0-3 ft)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

	MCP Guidelines for Identifying Acceptable Averaging										EPC Selection		
OHMPC[a]	Lowest Applicable Standard[b] (mg/kg)	Average[c] (mg/kg)	Count of exceeds S-2/GW-3	Freq. of Detection	Freq. of Sampling	Is the Average < Standard? (Y/N)	Percent of Detects > Standard (%)	Is 75% of data = or < standard? (Y/N)	Maximum Detect (mg/kg)	Is Maximum less than 10x Standard? (Y/N)	Is Average Acceptable as EPC?[d] (Y/N)	Selected EPC[e] (mg/kg)	EPC Selection Basis
Volatile Organic Compounds													
1,1,1-Trichloroethane	1000	0.017	0	1	37	Yes	0%	Yes	0.0090	Yes	Yes	0.0090	Maximum
cis-1,2-Dichloroethene	500	0.018	0	2	37	Yes	0%	Yes	0.034	Yes	Yes	0.018	Average
Ethylbenzene	1000	0.017	0	2	37	Yes	0%	Yes	0.0037	Yes	Yes	0.0037	Maximum
m&p-Xylenes	1000	0.020	0	7	32	Yes	0%	Yes	0.013	Yes	Yes	0.013	Maximum
Methylene Chloride	700	0.0086	0	1	37	Yes	0%	Yes	0.0087	Yes	Yes	0.0086	Average
o-Xylene	1000	0.019	0	3	32	Yes	0%	Yes	0.0036	Yes	Yes	0.0036	Maximum
Tetrachloroethene	200	0.018	0	2	37	Yes	0%	Yes	0.026	Yes	Yes	0.018	Average
Toluene	1000	0.017	0	2	37	Yes	0%	Yes	0.00040	Yes	Yes	0.00040	Maximum
Trichloroethene	60	0.020	0	11	37	Yes	0%	Yes	0.057	Yes	Yes	0.020	Average
Semi Volatile Organic Compounds													
2-Methylnaphthalene	500	0.30	0	1	8	Yes	0%	Yes	0.87	Yes	Yes	0.30	Average
Acenaphthene	3000	0.28	0	1	8	Yes	0%	Yes	0.73	Yes	Yes	0.28	Average
Anthracene	3000	0.25	0	1	8	Yes	0%	Yes	0.45	Yes	Yes	0.25	Average
Benzo[g,h,i]perylene	3000	0.20	0	1	8	Yes	0%	Yes	0.093	Yes	Yes	0.093	Maximum
Fluorene	3000	0.26	0	1	8	Yes	0%	Yes	0.52	Yes	Yes	0.26	Average
Naphthalene	1000	0.34	0	1	8	Yes	0%	Yes	1.2	Yes	Yes	0.34	Average
Phenanthrene	1000	0.37	0	1	8	Yes	0%	Yes	1.4	Yes	Yes	0.37	Average
Extractable Petroleum Hydrocarbons													
Benzo[a]anthracene	40	0.25	0	3	30	Yes	0%	Yes	1.0	Yes	Yes	0.25	Average
Benzo[a]pyrene	7	0.22	0	2	30	Yes	0%	Yes	0.64	Yes	Yes	0.22	Average
Benzo[k]fluoranthene	400	0.24	0	2	30	Yes	0%	Yes	1.1	Yes	Yes	0.24	Average
C11-C22 Aromatics	3000	8.6	0	20	36	Yes	0%	Yes	58	Yes	Yes	8.6	Average
C19-C36 Aliphatics	5000	6.4	0	23	37	Yes	0%	Yes	30	Yes	Yes	6.4	Average
C9-C18 Aliphatics	3000	4.2	0	3	37	Yes	0%	Yes	52	Yes	Yes	4.2	Average
Chrysene	400	0.26	0	3	30	Yes	0%	Yes	1.1	Yes	Yes	0.26	Average
Fluoranthene	3000	0.32	0	4	30	Yes	0%	Yes	1.7	Yes	Yes	0.32	Average
Pyrene	3000	0.33	0	4	30	Yes	0%	Yes	2.1	Yes	Yes	0.33	Average
Metals													
Aluminum	NA	16253	NA	49	49	NA	0%	NA	52000	NA	Yes	16253	Average
Antimony	30	1.4	0	26	70	Yes	0%	Yes	9.1	Yes	Yes	1.4	Average
Barium	3000	67	0	54	54	Yes	0%	Yes	290	Yes	Yes	67	Average
Beryllium	200	0.37	0	36	70	Yes	0%	Yes	0.8	Yes	Yes	0.37	Average
Chromium	3000	175	0	115	122	Yes	0%	Yes	2310	Yes	Yes	175	Average
Cobalt	NA	10	NA	49	49	NA	0%	NA	35	NA	Yes	10	Average
Copper	NA	114	NA	75	75	NA	0%	NA	990	NA	Yes	114	Average
Hexavalent Chromium	200	6.6	0	59	88	Yes	0%	Yes	140	Yes	Yes	6.6	Average
Lead	600	55	1	75	75	Yes	1%	Yes	1800	Yes	Yes	55	Average
Manganese	NA	310	NA	49	49	NA	0%	NA	1100	NA	Yes	310	Average
Mercury	30	0.062	0	30	49	Yes	0%	Yes	0.34	Yes	Yes	0.062	Average
Nickel	1000	36	0	54	54	Yes	0%	Yes	110	Yes	Yes	36	Average
Selenium	700	0.73	0	14	49	Yes	0%	Yes	0.94	Yes	Yes	0.73	Average
Silver	200	1.4	0	27	54	Yes	0%	Yes	18	Yes	Yes	1.4	Average
Thallium	60	1.3	0	6	49	Yes	0%	Yes	1.1	Yes	Yes	1.1	Maximum
Vanadium	700	38	0	49	49	Yes	0%	Yes	180	Yes	Yes	38	Average
Zinc	3000	59	0	49	49	Yes	0%	Yes	554	Yes	Yes	59	Average

Prepared by: CF 9/3/2020 &9/8/2020
Checked by: JPK 9/24/2020

Notes:
EPC - Exposure Point Concentration.
NA - Not Applicable.
OHMPC - Oil or Hazardous Materials of Potential Concern
UCL - Upper Confidence Limit (UCL) of the mean.
Compounds are included in this table once, even if analyzed by multiple methods. The maximum of the potential EPCs was identified using Table 2, and the chemical is shown under that analytical method.
(a) Compound list includes OHMPCs as identified in Tables 5 and 6.
(b) S-2/GW-3 Standard (MassDEP, 2014).
(c) Average (mean) concentration - calculated using 1/2 reporting limits to represent concentrations in compounds not detected.
(d) The average is selected as the EPC if all three conditions are met: 1) the arithmetic average is less than or equal to the applicable standard,
2) 75% of the data points used in the averaging procedure are less than or equal to the standard, and
3) no data point used in the averaging is ten times greater than the standard.
(e) The selected EPC is the average if acceptable, or the maximum if the average is higher than the maximum.

Table 18
Exposure Point Concentrations: Subsurface Soil (3-15 ft)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

	MCP Guidelines for Identifying Acceptable Averaging										EPC Selection		
OHMPC[a]	Lowest Applicable Standard[b] (mg/kg)	Average[c] (mg/kg)	Count of exceeds S-3/GW-3	Freq. of Detection	Freq. of Sampling	Is the Average < Standard? (Y/N)	Percent of Detects > Standard (%)	Is 75% of data = or < standard? (Y/N)	Maximum Detect (mg/kg)	Is Maximum less than 10x Standard? (Y/N)	Is Average Acceptable as EPC?[d] (Y/N)	Selected EPC[e] (mg/kg)	EPC Selection Basis
Volatile Organic Compounds													
1,1,1-Trichloroethane	3000	0.058	0	3	129	Yes	0%	Yes	1.4	Yes	Yes	0.058	Average
cis-1,2-Dichloroethene	500	0.085	0	17	129	Yes	0%	Yes	4.3	Yes	Yes	0.085	Average
Isopropylbenzene	500	0.11	NA	7	129	Yes	0%	Yes	4.7	Yes	Yes	0.11	Average
Tetrachloroethene	1000	0.042	0	7	129	Yes	0%	Yes	0.22	Yes	Yes	0.042	Average
Trichloroethene	60	0.42	0	33	129	Yes	0%	Yes	23	Yes	Yes	0.42	Average
Vinyl chloride	60	0.054	0	1	129	Yes	0%	Yes	0.086	Yes	Yes	0.054	Average
Semi Volatile Organic Compounds													
2-Methylnaphthalene	500	0.21	0	1	22	Yes	0%	Yes	2.4	Yes	Yes	0.21	Average
Acenaphthene	5000	0.21	0	1	22	Yes	0%	Yes	2.3	Yes	Yes	0.21	Average
BIS(2-ETHYLHEXYL)PHTHALATE	2000	0.20	0	4	16	Yes	0%	Yes	0.24	Yes	Yes	0.20	Average
Naphthalene	3000	0.25	0	3	22	Yes	0%	Yes	2.9	Yes	Yes	0.25	Average
Phenanthrene	3000	0.33	0	2	22	Yes	0%	Yes	4.9	Yes	Yes	0.33	Average
Extractable Petroleum Hydrocarbons													
Anthracene	5000	0.21	0	2	96	Yes	0%	Yes	1.3	Yes	Yes	0.21	Average
Benzo[a]anthracene	300	0.24	0	4	96	Yes	0%	Yes	3.5	Yes	Yes	0.24	Average
Benzo[a]pyrene	30	0.22	0	3	96	Yes	0%	Yes	2.3	Yes	Yes	0.22	Average
Benzo[g,h,i]perylene	5000	0.20	0	1	96	Yes	0%	Yes	1.2	Yes	Yes	0.20	Average
Benzo[k]fluoranthene	3000	0.22	0	2	96	Yes	0%	Yes	2.2	Yes	Yes	0.22	Average
C11-C22 Aromatics	5000	4.4	0	31	106	Yes	0%	Yes	110	Yes	Yes	4.4	Average
C19-C36 Aliphatics	5000	4.6	0	38	109	Yes	0%	Yes	40	Yes	Yes	4.6	Average
C9-C18 Aliphatics	5000	3.6	0	12	109	Yes	0%	Yes	150	Yes	Yes	3.6	Average
Chrysene	3000	0.24	0	4	96	Yes	0%	Yes	3.7	Yes	Yes	0.24	Average
Dibenz(a,h)anthracene	30	0.20	0	1	96	Yes	0%	Yes	0.79	Yes	Yes	0.20	Average
Fluoranthene	5000	0.29	0	6	96	Yes	0%	Yes	5.6	Yes	Yes	0.29	Average
Fluorene	5000	0.19	0	1	96	Yes	0%	Yes	0.59	Yes	Yes	0.19	Average
Pyrene	5000	0.28	0	5	96	Yes	0%	Yes	5.1	Yes	Yes	0.28	Average
Volatile Petroleum Hyrocarbons													
C9-C10 Aromatics	500	87	0	2	9	Yes	0%	Yes	740	Yes	Yes	87	Average
C9-C12 Aliphatics	5000	184	0	2	9	Yes	0%	Yes	1600	Yes	Yes	184	Average
Ethylbenzene	3000	79	0	3	9	Yes	0%	Yes	680	Yes	Yes	79	Average
m&p-Xylenes	3000	361	0	4	9	Yes	0%	Yes	3100	Yes	Yes	361	Average
o-Xylene	3000	88	0	2	9	Yes	0%	Yes	750	Yes	Yes	88	Average
Toluene	3000	12	0	2	9	Yes	0%	Yes	110	Yes	Yes	12	Average
Metals													
Aluminum	NA	13252	NA	130	130	NA	0%	NA	41000	NA	Yes	13252	Average
Antimony	30	2.1	1	92	226	Yes	0%	Yes	39	Yes	Yes	2.1	Average
Barium	5000	65	0	130	130	Yes	0%	Yes	330	Yes	Yes	65	Average
Beryllium	200	0.33	0	91	226	Yes	0%	Yes	0.7	Yes	Yes	0.33	Average
Chromium	5000	415	0	312	331	Yes	0%	Yes	4600	Yes	Yes	415	Average
Cobalt	NA	9.5	NA	129	130	NA	0%	NA	22	NA	Yes	9.5	Average
Copper	NA	231	NA	226	226	NA	0%	NA	2700	NA	Yes	231	Average
Hexavalent Chromium	200	31	9	224	250	Yes	4%	Yes	590	Yes	Yes	31	Average
Lead	600	35	2	224	226	Yes	1%	Yes	1500	Yes	Yes	35	Average
Manganese	NA	293	0	130	130	NA	0%	NA	1000	NA	Yes	293	Average
Mercury	30	0.040	0	29	130	Yes	0%	Yes	0.39	Yes	Yes	0.040	Average
Nickel	1000	39	0	130	130	Yes	0%	Yes	210	Yes	Yes	39	Average

Table 18
Exposure Point Concentrations: Subsurface Soil (3-15 ft)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

	MCP Guidelines for Identifying Acceptable Averaging										EPC Selection		
OHMPC[a]	Lowest Applicable Standard[b] (mg/kg)	Average[c] (mg/kg)	Count of exceeds S-3/GW-3	Freq. of Detection	Freq. of Sampling	Is the Average < Standard? (Y/N)	Percent of Detects > Standard (%)	Is 75% of data = or < standard? (Y/N)	Maximum Detect (mg/kg)	Is Maximum less than 10x Standard? (Y/N)	Is Average Acceptable as EPC?[d] (Y/N)	Selected EPC[e] (mg/kg)	EPC Selection Basis
Selenium	700	0.78	0	22	130	Yes	0%	Yes	0.64	Yes	Yes	0.64	Maximum
Silver	200	3.4	0	56	130	Yes	0%	Yes	72	Yes	Yes	3.4	Average
Thallium	80	1.6	0	24	130	Yes	0%	Yes	1.4	Yes	Yes	1.4	Maximum
Vanadium	700	31	0	130	130	Yes	0%	Yes	220	Yes	Yes	31	Average
Zinc	5000	41	0	130	130	Yes	0%	Yes	140	Yes	Yes	41	Average

Notes:
EPC - Exposure Point Concentration.
NA - Not Applicable.
OHMPC - Oil or Hazardous Materials of Potential Concern
UCL - Upper Confidence Limit (UCL) of the mean.
Compounds are included in this table once, even if analyzed by multiple methods. The maximum of the potential EPCs was identified using Table 3, and the chemical is shown under that analytical method.
(a) Compound list includes OHMPCs as identified in Tables 5 and 6.
(b) S-3/GW-3 Standard (MassDEP, 2014).
(c) Average (mean) concentration - calculated using 1/2 reporting limits to represent concentrations in compounds not detected.
(d) The average is selected as the EPC if all three conditions are met: 1) the arithmetic average is less than or equal to the applicable standard,
2) 75% of the data points used in the averaging procedure are less than or equal to the standard, and
3) no data point used in the averaging is ten times greater than the standard.
(e) The selected EPC is the average if acceptable, or the maximum if the average is higher than the maximum.

Prepared by: CF 9/3/2020 &9/8/2020
Checked by: JPK 9/24/2020

Table 19
Exposure Point Concentrations: Combined Soil (0-15 ft)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

	MCP Guidelines for Identifying Acceptable Averaging										EPC Selection		
OHMPC[a]	Lowest Applicable Standard[b] (mg/kg)	Average[c] (mg/kg)	Count of exceeds S-2/GW-3	Freq. of Detection	Freq. of Sampling	Is the Average < Standard? (Y/N)	Percent of Detects > Standard (%)	Is 75% of data = or < standard? (Y/N)	Maximum Detect (mg/kg)	Is Maximum less than 10x Standard? (Y/N)	Is Average Acceptable as EPC?[d] (Y/N)	Selected EPC[e] (mg/kg)	EPC Selection Basis
Volatile Organic Compounds													
1,1,1-Trichloroethane	1000	0.049	0	4	166	Yes	0%	Yes	1.4	Yes	Yes	0.049	Average
cis-1,2-Dichloroethene	500	0.070	0	19	166	Yes	0%	Yes	4.3	Yes	Yes	0.070	Average
Isopropylbenzene	NA	0.088	NA	7	166	NA	0%	NA	4.7	NA	Yes	0.088	Average
Methylene Chloride	700	0.031	0	1	166	Yes	0%	Yes	0.0087	Yes	Yes	0.0087	Maximum
Tetrachloroethene	200	0.036	0	9	166	Yes	0%	Yes	0.22	Yes	Yes	0.036	Average
Trichloroethene	60	0.33	0	44	166	Yes	0%	Yes	23	Yes	Yes	0.33	Average
Vinyl chloride	7	0.046	0	1	166	Yes	0%	Yes	0.086	Yes	Yes	0.046	Average
Semi Volatile Organic Compounds													
2-Methylnaphthalene	500	0.23	0	2	30	Yes	0%	Yes	2.4	Yes	Yes	0.23	Average
Acenaphthene	3000	0.23	0	2	30	Yes	0%	Yes	2.3	Yes	Yes	0.23	Average
BIS(2-ETHYLHEXYL)PHTHALATE	600	0.26	0	4	24	Yes	0%	Yes	0.24	Yes	Yes	0.24	Maximum
Fluorene	3000	0.19	0	2	30	Yes	0%	Yes	1.4	Yes	Yes	0.19	Average
Naphthalene	1000	0.27	0	4	30	Yes	0%	Yes	2.9	Yes	Yes	0.27	Average
Phenanthrene	1000	0.34	0	3	30	Yes	0%	Yes	4.9	Yes	Yes	0.34	Average
Extractable Petroleum Hydrocarbons													
Anthracene	3000	0.20	0	2	126	Yes	0%	Yes	1.3	Yes	Yes	0.20	Average
Benzo[a]anthracene	40	0.24	0	7	126	Yes	0%	Yes	3.5	Yes	Yes	0.24	Average
Benzo[a]pyrene	7	0.22	0	5	126	Yes	0%	Yes	2.3	Yes	Yes	0.22	Average
Benzo[g,h,i]perylene	3000	0.20	0	1	126	Yes	0%	Yes	1.2	Yes	Yes	0.20	Average
Benzo[k]fluoranthene	400	0.22	0	4	126	Yes	0%	Yes	2.2	Yes	Yes	0.22	Average
C11-C22 Aromatics	5000	5.5	0	51	142	Yes	0%	Yes	110	Yes	Yes	5.5	Average
C19-C36 Aliphatics	5000	5.1	0	61	146	Yes	0%	Yes	40	Yes	Yes	5.1	Average
C9-C18 Aliphatics	5000	3.8	0	15	146	Yes	0%	Yes	150	Yes	Yes	3.8	Average
Chrysene	400	0.24	0	7	126	Yes	0%	Yes	3.7	Yes	Yes	0.24	Average
Dibenz(a,h)anthracene	4	0.20	0	1	126	Yes	0%	Yes	0.79	Yes	Yes	0.20	Average
Fluoranthene	3000	0.30	0	10	126	Yes	0%	Yes	5.6	Yes	Yes	0.30	Average
Pyrene	3000	0.29	0	9	126	Yes	0%	Yes	5.1	Yes	Yes	0.29	Average
Volatile Petroleum Hyrocarbons													
C9-C10 Aromatics	500	87	0	2	9	Yes	0%	Yes	740	Yes	Yes	87	Average
C9-C12 Aliphatics	500	184	0	2	9	Yes	0%	Yes	1600	Yes	Yes	184	Average
Ethylbenzene	1000	79	0	3	9	Yes	0%	Yes	680	Yes	Yes	79	Average
m&p-Xylenes	1000	361	0	4	9	Yes	0%	Yes	3100	Yes	Yes	361	Average
o-Xylene	1000	88	0	2	9	Yes	0%	Yes	750	Yes	Yes	88	Average
Toluene	1000	12	0	2	9	Yes	0%	Yes	110	Yes	Yes	12	Average
Metals													
Aluminum	NA	14074	NA	179	179	NA	0%	NA	52000	NA	Yes	14074	Average
Antimony	30	1.9	1	118	296	Yes	0%	Yes	39	Yes	Yes	1.9	Average
Barium	3000	66	0	184	184	Yes	0%	Yes	330	Yes	Yes	66	Average
Beryllium	200	0.34	0	127	296	Yes	0%	Yes	0.81	Yes	Yes	0.34	Average
Chromium	3000	350	3	427	453	Yes	1%	Yes	4600	Yes	Yes	350	Average
Cobalt	NA	9.7	NA	178	179	NA	0%	NA	35	NA	Yes	9.7	Average
Copper	NA	202	NA	301	301	NA	0%	NA	2700	NA	Yes	202	Average
Hexavalent Chromium	200	24	9	283	338	Yes	3%	Yes	590	Yes	Yes	24	Average
Lead	600	40	3	299	301	Yes	1%	Yes	1800	Yes	Yes	40	Average
Manganese	NA	298	NA	179	179	NA	0%	NA	1100	NA	Yes	298	Average
Mercury	30	0.046	0	59	179	Yes	0%	Yes	0.39	Yes	Yes	0.046	Average
Nickel	1000	38	0	184	184	Yes	0%	Yes	210	Yes	Yes	38	Average
Selenium	700	0.77	0	36	179	Yes	0%	Yes	0.94	Yes	Yes	0.77	Average

Table 19
Exposure Point Concentrations: Combined Soil (0-15 ft)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

	MCP Guidelines for Identifying Acceptable Averaging										EPC Selection		
OHMPC[a]	Lowest Applicable Standard[b] (mg/kg)	Average[c] (mg/kg)	Count of exceeds S-2/GW-3	Freq. of Detection	Freq. of Sampling	Is the Average < Standard? (Y/N)	Percent of Detects > Standard (%)	Is 75% of data = or < standard? (Y/N)	Maximum Detect (mg/kg)	Is Maximum less than 10x Standard? (Y/N)	Is Average Acceptable as EPC?[d] (Y/N)	Selected EPC[e] (mg/kg)	EPC Selection Basis
Silver	200	2.8	0	83	184	Yes	0%	Yes	72	Yes	Yes	2.8	Average
Thallium	60	1.5	0	30	179	Yes	0%	Yes	1.4	Yes	Yes	1.4	Maximum
Vanadium	700	33	0	179	179	Yes	0%	Yes	220	Yes	Yes	33	Average
Zinc	3000	46	0	179	179	Yes	0%	Yes	554	Yes	Yes	46	Average

Notes:
EPC - Exposure Point Concentration.
NA - Not Applicable.
OHMPC - Oil or Hazardous Materials of Potential Concern
UCL - Upper Confidence Limit (UCL) of the mean.
Compounds are included in this table once, even if analyzed by multiple methods. The maximum of the potential EPCs was identified using Table 3, and the chemical is shown under that analytical method.
(a) Compound list includes OHMPCs as identified in Tables 5 and 6.
(b) Lower of S-2/GW-3 and S-3/GW-3 Standards (MassDEP, 2014).
(c) Average (mean) concentration - calculated using 1/2 reporting limits to represent concentrations in compounds not detected.
(d) The average is selected as the EPC if all three conditions are met: 1) the arithmetic average is less than or equal to the applicable standard,
2) 75% of the data points used in the averaging procedure are less than or equal to the standard, and
3) no data point used in the averaging is ten times greater than the standard.
(e) The selected EPC is the average if acceptable, or the maximum if the average is higher than the maximum.

Prepared by: CF 9/3/2020 &9/8/2020
Checked by: JPK 9/24/2020

Table 20
Exposure Point Concentrations: Groundwater and Excavation Air
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

OHMPC[(a)]	On-Property Groundwater EPC (ug/L) [(b)]	On-Property Excavation Air (ug/m3)	Off-Property Groundwater EPC (ug/L)	Off-Property Excavation Air (ug/m3)
Chromium	216	--	17	--
Hexavalent Chromium	144	--	17	--
1,1-Dichloroethene	1.2	2.7E-02	--	--
Chloroethane	2.3	7.5E-02	--	--
cis-1,2-Dichloroethene	44	9.4E-01	1.9	4.2E-02
Methylene Chloride	0.70	1.7E-02	--	--
Tetrachloroethene	0.43	5.6E-03	--	--
trans-1,2-Dichloroethene	1.7	3.7E-02	0.62	1.4E-02
Trichloroethene	93	1.5E+00	8.8	1.5E-01
Vinyl Chloride	7.2	2.5E-01	--	--

Notes:
ug/L - micrograms per liter
ug/m3 - micrograms per cubic meter
EPC - Exposure Point Concentration.
"-" - Not Applicable.
OHMPC - Oil or Hazardous Materials of Potential Concern

Prepared By: CF 9/18/2020
Checked By: JPK 9/21/2020
Revised By: JPK 5/24/2022
Checked By: KALS 6/15/2022

(a) Compound list includes OHMPCs as identified in **Table 7.** Summary statistics are presented in **Table 8** for On-Property Groundwater and **Table 9** for Off-Property Groundwater.
(b) EPC is the average concentration in groundwater, unless the calculated average is higher than the maximum detected value; then the maximum detected value is the EPC.
(c) Excavation air EPCs are calculated in **Attachment C.**

Table 21
Exposure Point Concentrations: Surface Water and Sediment
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Chemical	CASRN	Frequency of Detection	EPC (Maximum Concentration)	Units
Sediment					
VOCs	Acetone	67-64-1	1 / 4	0.013	mg/Kg
VOCs	Trichloroethene	79-01-6	3 / 4	0.0042	mg/Kg
SVOCs	Benzo[a]anthracene	56-55-3	1 / 4	0.18	mg/Kg
SVOCs	Benzo[a]pyrene	50-32-8	1 / 4	0.18	mg/Kg
SVOCs	Benzo[b]fluoranthene	205-99-2	1 / 4	0.22	mg/Kg
SVOCs	Benzo[g,h,i]perylene	191-24-2	1 / 4	0.12	mg/Kg
SVOCs	Benzo[k]fluoranthene	207-08-9	1 / 4	0.085	mg/Kg
SVOCs	Chrysene	218-01-9	1 / 4	0.19	mg/Kg
SVOCs	Fluoranthene	206-44-0	1 / 4	0.38	mg/Kg
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	2 / 4	0.20	mg/Kg
SVOCs	Phenanthrene	85-01-8	1 / 4	0.18	mg/Kg
SVOCs	Pyrene	129-00-0	1 / 4	0.35	mg/Kg
Pesticides	4,4'-DDE	72-55-9	1 / 4	0.0073	mg/Kg
Pesticides	4,4'-DDT	50-29-3	1 / 4	0.0043	mg/Kg
Metals	Arsenic	7440-38-2	5 / 5	27	mg/Kg
Metals	Barium	7440-39-3	4 / 4	39	mg/Kg
Metals	Beryllium	7440-41-7	4 / 4	0.25	mg/Kg
Metals	Cadmium	7440-43-9	3 / 4	0.15	mg/Kg
Metals	Chromium	7440-47-3	14 / 14	901	mg/Kg
Metals	Copper	7440-50-8	4 / 4	170	mg/Kg
Metals	Hexavalent Chromium	18540-29-9	3 / 14	8.4	mg/Kg
Metals	Lead	7439-92-1	7 / 7	26	mg/Kg
Metals	Mercury	7439-97-6	1 / 4	0.020	mg/Kg
Metals	Nickel	7440-02-0	4 / 4	22	mg/Kg
Metals	Vanadium	7440-62-2	4 / 4	17	mg/Kg
Metals	Zinc	7440-66-6	4 / 4	64	mg/Kg

Table 21
Exposure Point Concentrations: Surface Water and Sediment
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical Class	Chemical	CASRN	Frequency of Detection	EPC (Maximum Concentration)	Units
Surface Water					
VOCs	1,4-Dioxane	123-91-1	1 / 35	16	ug/L
VOCs	Acetone	67-64-1	3 / 35	12	ug/L
VOCs	cis-1,2-Dichloroethene	156-59-2	3 / 35	5.9	ug/L
VOCs	Tetrachloroethene	127-18-4	2 / 35	1.6	ug/L
VOCs	Trichloroethene	79-01-6	24 / 35	90	ug/L
Metals	Arsenic	7440-38-2	1 / 35	6.4	ug/L
Metals	Barium	7440-39-3	35 / 35	28	ug/L
Metals	Chromium	7440-47-3	30 / 36	840	ug/L
Metals	Copper	7440-50-8	27 / 35	15	ug/L
Metals	Hexavalent Chromium	18540-29-9	28 / 41	880	ug/L
Metals	Manganese	7439-96-5	31 / 35	120	ug/L
Metals	Nickel	7440-02-0	6 / 35	1.8	ug/L
Metals	Zinc	7440-66-6	5 / 35	7.0	ug/L

Prepared by: CF 9/16/2020
Checked by: JPK 9/18/2020
Revised by: CF 3/11/2022
Checked by: KALS 6/15/2022

Notes:
Exposure point concentrations are the maximum detected concentrations for chemicals in sediment and surface water.
Summary statistics are presented in **Table 10** for surface water and **Table 11** for sediment.
For surface water, calcium, iron, magnesium, potassium, and sodium were not included in this table because they are essential nutrients and thus are not compounds of concern.

Table 22
Dose Response Data for Carcinogens
Method 3 Risk Characterization
Conductorlab
Groton, MA

OIL OR HAZARDOUS MATERIAL	CAS	Carcinogen Class	Oral Cancer Slope Factor $(mg/kg/day)^{-1}$		Inhalation Unit Risk Factor $(\mu g/m^3)^{-1}$		Inhalation Cancer Slope Factor[5g] $(mg/kg/day)^{-1}$	
Volatile Organic Compounds								
1,1,1-TRICHLOROETHANE	71-55-6	D	--	1	--		--	
1,1-DICHLOROETHENE	75-35-4	C	--	1	--	1	--	
1,4-DIOXANE	123-91-1	B2	1.0E-01	1	5.0E-06	1	1.8E-02	5g
ACETONE	67-64-1	D	--	1	--		--	
CHLOROETHANE	75-00-3	--	--		--		--	
cis-1,2-DICHLOROETHENE	156-59-2	D	--	1	--		--	
ETHYLBENZENE	100-41-4	D	--	--	--	--	--	--
ISOPROPYLBENZENE	98-82-8	--	--		--		--	
M&P-XYLENES	NA	D	--	1	--		--	
METHYLENE CHLORIDE	75-09-2	B2	2.0E-03	1	1.0E-08	1	3.5E-05	5g
O-XYLENE	95-47-6	D	--	1	--		--	
TETRACHLOROETHENE	127-18-4	--	2.0E-02	5h	3.0E-06	5h	1.1E-02	5g
TOLUENE	108-88-3	D	--	1	--		--	
TRANS-1,2-DICHLOROETHENE	156-60-5	--	--		--		--	
TRICHLOROETHENE	79-01-6	C-B2	5.0E-02	1	5.0E-06	1	1.8E-02	5g
VINYL CHLORIDE	75-01-4	A	1.4E+00	1	8.8E-06	1	3.1E-02	5g
Semi Volatile Organic Compounds								
2-METHYLNAPHTHALENE	91-57-6	--	--		--		--	
ACENAPHTHENE	83-32-9	--	--		--		--	
ANTHRACENE	120-12-7	D	--	1	--		--	
BENZO[A]ANTHRACENE	56-55-3	B2	7.3E-01	1e	2.1E-04	7a	7.3E-01	5g
BENZO[A]PYRENE	50-32-8	B2	7.3E+00	1	2.1E-03	7a	7.3E+00	5g
BENZO[B]FLUORANTHENE	205-99-2	B2	7.3E-01	1e	2.1E-04	7a	7.3E-01	5g
BENZO[G,H,I]PERYLENE	191-24-2	--	--		--		--	
BENZO[K]FLUORANTHENE	207-08-9	B2	7.3E-02	1e	2.1E-05	7a	7.3E-02	5g
bis(2-ETHYLHEXYL)PHTHALATE	117-81-7	B2	1.4E-02	1	1.3E-06	3	4.6E-03	5g
CHRYSENE	218-01-9	B2	7.3E-02	1e	2.1E-05	7a	7.3E-02	5g
DIBENZ(A,H)ANTHRACENE	53-70-3	B2	7.3E+00	1e	2.1E-03	7a	7.3E+00	5g
FLUORANTHENE	206-44-0	D	--	1	--		--	
FLUORENE	86-73-7	--	--		--		--	
INDENO[1,2,3-CD]PYRENE	193-39-5	B2	7.3E-01	1e	2.1E-04	7a	7.3E-01	5g
NAPHTHALENE	91-20-3	--	--		--		--	
PHENANTHRENE	85-01-8	D	--	1	--		--	
PYRENE	129-00-0	D	--	1	--		--	

Table 22
Dose Response Data for Carcinogens
Method 3 Risk Characterization
Conductorlab
Groton, MA

OIL OR HAZARDOUS MATERIAL	CAS	Carcinogen Class	Oral Cancer Slope Factor $(mg/kg/day)^{-1}$		Inhalation Unit Risk Factor $(\mu g/m^3)^{-1}$		Inhalation Cancer Slope Factor[5g] $(mg/kg/day)^{-1}$	
EPH								
ACENAPHTHENE	83-32-9		--		--		--	
ANTHRACENE	120-12-7	D	--	1	--		--	
BENZO[A]ANTHRACENE	56-55-3	B2	7.3E-01	1e	2.1E-04	7a	7.3E-01	5g
BENZO[A]PYRENE	50-32-8	B2	7.3E+00	1	2.1E-03	7a	7.3E+00	5g
BENZO[G,H,I]PERYLENE	191-24-2		--		--		--	
BENZO[K]FLUORANTHENE	207-08-9	B2	7.3E-02	1e	2.1E-05	7a	7.3E-02	5g
C11-C22 AROMATICS	NA	--	--		--		--	
C19-C36 ALIPHATICS	NA	--	--		--		--	
C9-C18 ALIPHATICS	NA	--	--		--		--	
CHRYSENE	218-01-9	B2	7.3E-02	1e	2.1E-05	7a	7.3E-02	5g
DIBENZ(A,H)ANTHRACENE	53-70-3	B2	7.3E+00	1e	2.1E-03	7a	7.3E+00	5g
FLUORANTHENE	206-44-0	D	--	1	--		--	
FLUORENE	86-73-7		--		--		--	
NAPHTHALENE	91-20-3		--		--		--	
PHENANTHRENE	85-01-8	D	--	1	--		--	
PYRENE	129-00-0	D	--	1	--		--	
VPH								
C9-C10 AROMATICS	NA	--	--		--		--	
C9-C12 ALIPHATICS	NA	--	--		--		--	
ETHYLBENZENE	100-41-4	D	--	1	--		--	
M&P-XYLENES	NA	D	--	1	--		--	
O-XYLENE	95-47-6	D	--	1	--		--	
TOLUENE	108-88-3	D	--	1	--		--	

Table 22
Dose Response Data for Carcinogens
Method 3 Risk Characterization
Conductorlab
Groton, MA

OIL OR HAZARDOUS MATERIAL	CAS	Carcinogen Class	Oral Cancer Slope Factor $(mg/kg/day)^{-1}$		Inhalation Unit Risk Factor $(\mu g/m^3)^{-1}$		Inhalation Cancer Slope Factor[5g] $(mg/kg/day)^{-1}$	
Metals								
ALUMINUM	7429-90-5	--	--		--		--	
ANTIMONY	7440-36-0	--	--		--		--	
ARSENIC	7440-38-2	A	1.5E+00	1	3.0E-03	3a	1.1E+01	5g
BARIUM	7440-39-3	--	--		--		--	
BERYLLIUM	7440-41-7	--	--		2.4E-03	1	8.4E+00	5g
CADMIUM	7440-43-9	B1	--	1	1.8E-03	3	6.3E+00	5g
CHROMIUM(III)	7440-47-3	--	--		--		--	
COBALT	7440-48-4	--	--		9.0E-03	6	3.2E+01	6
COPPER	7440-50-8	--	--		--		--	
HEXAVALENT CHROMIUM	18540-29-9	--	--		1.2E-02	1	4.2E+01	5g
LEAD	7439-92-1	B2	--	1	--		--	
MANGANESE	7439-96-5	--	--		--		--	
MERCURY	7439-97-6	D	--	1	--		--	
NICKEL	7440-02-0	A	--	1	4.8E-04	1	1.7E+00	5g
SELENIUM	7782-49-2	D	--	1	--		--	
SILVER	7440-22-4	D	--	1	--		--	
THALLIUM	7440-28-0	--	--		--		--	
VANADIUM	7440-62-2	--	--		--		--	
ZINC	7440-66-6	D	--	1	--		--	
Pesticides								
4,4'-DDE	72-55-9	B2	3.4E-01	1	9.7E-05	7a	3.4E-01	5g
4,4'-DDT	50-29-3	B2	3.4E-01	1	9.7E-05	1	3.4E-01	5g

Table 22
Dose Response Data for Carcinogens
Method 3 Risk Characterization
Conductorlab
Groton, MA

OIL OR HAZARDOUS MATERIAL	CAS	Carcinogen Class	Oral Cancer Slope Factor $(mg/kg/day)^{-1}$	Inhalation Unit Risk Factor $(\mu g/m^3)^{-1}$	Inhalation Cancer Slope Factor[5g] $(mg/kg/day)^{-1}$

Notes:

Prepared by: CF 3/22/2022
Checked by: KALS 6/15/2022

EPH - Extractable Petroleum Hydrocarbons.
-- - Not Available
VPH - Volatile Petroleum Hydrocarbons.
Toxicty values are not shown for chemicals of potential concern that are only being compared to Upper Concentration Limits, as no risk calculations are being performed for these chemicals.
MassDEP obtains dose-response values from several sources. Per 310 CMR 40.0993(5)(a), preference is given to dose-response values derived by the MassDEP.
The notes provided by MassDEP are as follows:

1 - USEPA, Integrated Risk Information System (IRIS). Current as of February 2019.
1e - The IRIS Oral Cancer Slope Factor for benzo(a)pyrene is the basis for the Oral Cancer Slope Factor applied to the seven PAH compounds which are designated as category A, B1, B2 or C carcinogens.
3 - MassDEP Chemical Health Effects Assessment Methodology and Method to Derive Allowable Ambient Limits (CHEM/AAL) http://www.mass.gov/dep/toxics/stypes/telaal.htm
3a - MassDEP Methodology for Updating Air Guidelines: Allowable Ambient Limits (AALs) and Threshold Effects Exposure Limits (TELs) (MassDEP 2011). More info on the MassDEP Amibient Air Toxics Guidelines webpage. (http://www.mass.gov/eea/agencies/massdep/toxics/sources/air-guideline-values.html)
5g - Conversion of the Inhalation Unit Risk Factor to an inhalation Cancer Slope Factor using the equation: URF x Conversion Factor x Body Weight / Ventilation Rate
(URF x CF x V) / BW = (URF x 1000 x 20 m^3/day) / 70 kg
5h - Developed by MassDEP ORS in 2013, adopted in by MassDEP in January 2014.
6 - PPRTVs
7a - Conversion of the oral Cancer Slope Factor to the inhalation Unit Risk, using the equation: Slope Factor x Ventilation Rate x Constant / Body Weight
(CSF x V x C)/BW = (CSF x 20 m3/day x 0.001 mg/µg) / 70 kg

For compounds not provided by MassDEP, toxicity values have been selected from the following sources using this hierarchy:
Tier 1: I - IRIS - Integrated Risk Information System (USEPA, 2017) (http://www.epa.gov/IRIS/).
Tier 2: C - CalEPA - California Environmental Protection Agency Toxicity Criteria Database (http://www.oehha.ca.gov/risk/chemicalDB/).

Carcinogen Class:

A - Human carcinogen
B1 - Probable human carcinogen - indicates that limited human data are available
B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans.
C - Possible human carcinogen
D - Not classifiable as a human carcinogen
ND - Not Determined. These have not been evaluated, or inadequate information was available to assess carcinogenic potential

Table 23
Dose Response Data for Non-Cancer
Method 3 Risk Characterization
Conductorlab
Groton, MA

OIL OR HAZARDOUS MATERIAL	CAS	Chronic Oral Reference Dose (mg/kg/day)		Subchronic Oral Reference Dose (or substitute) (mg/kg/day)		Chronic Inhalation Reference Concentration (mg/m^3)		Subchronic Inhalation Reference Concentration (or substitute) (mg/m^3)		Chronic Inhalation Reference Dose[5f] (mg/kg/day)		Subchronic Inhalation Reference Dose (or Substitute)[5f] (mg/kg/day)	
Volatile Organic Compounds													
1,1,1-TRICHLOROETHANE	71-55-6	2.0E+00	1	7.0E+00	1	5.0E+00	1	5.0E+00	1	1.4E+00	5f	1.4E+00	5f
1,1-DICHLOROETHENE	75-35-4	5.0E-02	1	5.0E-02	1d	2.0E-01	1	2.0E-01	1j	5.7E-02	5f	5.7E-02	5f
1,4-DIOXANE	123-91-1	3.0E-02	1	3.0E-02	1d	3.0E-02	1	3.0E-02	7c	8.6E-03	5f	8.6E-03	5f
ACETONE	67-64-1	9.0E-01	1	2.7E+00	1i	8.0E-01	3	8.0E-01	7c	2.3E-01	5f	2.3E-01	5f
CHLOROETHANE	75-00-3	--	--	1.0E-01	6	4.0E+00	6	4.0E+00	6a	1.1E+00	0	1.1E+00	5f
cis-1,2-DICHLOROETHENE	156-59-2	2.0E-03	1	2.0E-02	6	6.0E-03	7b	6.0E-02	7b	1.7E-03	5f	1.7E-02	5f
ETHYLBENZENE	100-41-4	5.0E-02	6a	5.0E-02	6	1.0E+00	1	9.0E+00	6	2.9E-01	5f	2.6E+00	5f
ISOPROPYLBENZENE	98-82-8	3.0E-02	5c	3.0E-01	5c	5.0E-02	5c	5.0E-01	5c	1.4E-02	5f	1.4E-01	5f
M&P-XYLENES	NA	2.0E-01	1	4.0E-01	6	1.0E-01	1	4.0E-01	6	2.9E-02	5f	1.1E-01	5f
METHYLENE CHLORIDE	75-09-2	6.0E-03	1	6.0E-03	1d	6.0E-01	1	6.0E-01	1j	1.7E-01	5f	1.7E-01	5f
O-XYLENE	95-47-6	2.0E-01	1	4.0E-01	6	1.0E-01	1	4.0E-01	6	2.9E-02	5f	1.1E-01	5f
TETRACHLOROETHENE	127-18-4	6.0E-03	1	6.0E-03	1d	4.0E-02	1	4.0E-02	7c	1.1E-02	5f	1.1E-02	5f
TOLUENE	108-88-3	8.0E-02	1	8.0E-01	6	5.0E+00	1	5.0E+00	6	1.4E+00	5f	1.4E+00	5f
TRANS-1,2-DICHLOROETHENE	156-60-5	2.0E-02	1	2.0E-01	1i	6.0E-02	6	6.0E-02	7c	1.7E-02	5f	1.7E-02	5f
TRICHLOROETHENE	79-01-6	5.0E-04	1	5.0E-04	1d	2.0E-03	1	2.0E-03	1j	5.7E-04	5f	5.7E-04	5f
VINYL CHLORIDE	75-01-4	3.0E-03	1	3.0E-03	1d	1.0E-01	1	1.0E-01	7c	2.9E-02	5f	2.9E-02	5f
Semi Volatile Organic Compounds													
2-METHYLNAPHTHALENE	91-57-6	4.0E-03	1	4.0E-03	6	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
ACENAPHTHENE	83-32-9	6.0E-02	1	2.0E-01	6	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
ANTHRACENE	120-12-7	3.0E-01	1	1.0E+00	6	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
BENZO[A]ANTHRACENE	56-55-3	3.0E-02	5d	3.0E-01	5d	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
BENZO[A]PYRENE	50-32-8	3.0E-02	5d	3.0E-01	5d	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
BENZO[B]FLUORANTHENE	205-99-2	3.0E-02	5d	3.0E-01	5d	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
BENZO[G,H,I]PERYLENE	191-24-2	3.0E-02	5d	3.0E-01	5d	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
BENZO[K]FLUORANTHENE	207-08-9	3.0E-02	5d	3.0E-01	5d	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
bis(2-ETHYLHEXYL)PHTHALATE	117-81-7	2.0E-02	1	2.0E-02	2d	7.0E-03	3	7.0E-03	7c	2.0E-03	5f	2.0E-03	5f
CHRYSENE	218-01-9	3.0E-02	5d	3.0E-01	5d	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
DIBENZ(A,H)ANTHRACENE	53-70-3	3.0E-02	5d	3.0E-01	5d	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
FLUORANTHENE	206-44-0	4.0E-02	1	1.0E-01	6	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
FLUORENE	86-73-7	4.0E-02	1	4.0E-01	2	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
INDENO[1,2,3-CD]PYRENE	193-39-5	3.0E-02	5d	3.0E-01	5d	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
NAPHTHALENE	91-20-3	2.0E-02	1	2.0E-01	1i	3.0E-03	1	3.0E-03	7c	8.6E-04	5f	8.6E-04	5f
PHENANTHRENE	85-01-8	3.0E-02	5d	3.0E-01	5d	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
PYRENE	129-00-0	3.0E-02	1	3.0E-01	6	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f

Table 23
Dose Response Data for Non-Cancer
Method 3 Risk Characterization
Conductorlab
Groton, MA

OIL OR HAZARDOUS MATERIAL	CAS	Chronic Oral Reference Dose (mg/kg/day)		Subchronic Oral Reference Dose (or substitute) (mg/kg/day)		Chronic Inhalation Reference Concentration (mg/m^3)		Subchronic Inhalation Reference Concentration (or substitute) (mg/m^3)		Chronic Inhalation Reference Dose[5f] (mg/kg/day)		Subchronic Inhalation Reference Dose (or Substitute)[5f] (mg/kg/day)	
EPH													
ACENAPHTHENE	83-32-9	6.0E-02	1	2.0E-01	6	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
ANTHRACENE	120-12-7	3.0E-01	1	1.0E+00	6	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
BENZO[A]ANTHRACENE	56-55-3	3.0E-02	5d	3.0E-01	5d	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
BENZO[A]PYRENE	50-32-8	3.0E-02	5d	3.0E-01	5d	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
BENZO[G,H,I]PERYLENE	191-24-2	3.0E-02	5d	3.0E-01	5d	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
BENZO[K]FLUORANTHENE	207-08-9	3.0E-02	5d	3.0E-01	5d	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
C11-C22 AROMATICS	--	3.0E-02	5c	3.0E-01	5c	5.0E-02	5c	5.0E-01	5c	1.4E-02	5f	1.4E-01	5f
C19-C36 ALIPHATICS	--	2.0E+00	5c	6.0E+00	5c	--		--		--		--	
C9-C18 ALIPHATICS	--	1.0E-01	5c	1.0E+00	5c	2.0E-01	5c	6.0E-01	5c	5.7E-02	5f	1.7E-01	5f
CHRYSENE	218-01-9	3.0E-02	5d	3.0E-01	5d	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
DIBENZ(A,H)ANTHRACENE	53-70-3	3.0E-02	5d	3.0E-01	5d	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
FLUORANTHENE	206-44-0	4.0E-02	1	1.0E-01	6	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
FLUORENE	86-73-7	4.0E-02	1	4.0E-01	2	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
NAPHTHALENE	91-20-3	2.0E-02	1	2.0E-01	1i	3.0E-03	1	3.0E-03	7c	8.6E-04	5f	8.6E-04	5f
PHENANTHRENE	85-01-8	3.0E-02	5d	3.0E-01	5d	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
PYRENE	129-00-0	3.0E-02	1	3.0E-01	6	5.0E-02	5d	5.0E-01	5d	1.4E-02	5f	1.4E-01	5f
VPH													
C9-C10 AROMATICS	--	3.0E-02	5c	3.0E-01	5c	5.0E-02	5c	5.0E-01	5c	1.4E-02	5f	1.4E-01	5f
C9-C12 ALIPHATICS	--	1.0E-01	5c	1.0E+00	5c	2.0E-01	5c	6.0E-01	5c	5.7E-02	5f	1.7E-01	5f
ETHYLBENZENE	100-41-4	5.0E-02	6a	5.0E-02	6	1.0E+00	1	9.0E+00	6	2.9E-01	5f	2.6E+00	5f
M&P-XYLENES	NA	2.0E-01	1	4.0E-01	6	1.0E-01	1	4.0E-01	6	2.9E-02	5f	1.1E-01	5f
O-XYLENE	95-47-6	2.0E-01	1	4.0E-01	6	1.0E-01	1	4.0E-01	6	2.9E-02	5f	1.1E-01	5f
TOLUENE	108-88-3	8.0E-02	1	8.0E-01	6	5.0E+00	1	5.0E+00	6	1.4E+00	5f	1.4E+00	5f
Metals													
ALUMINUM	7429-90-5	1.0E+00	6	1.0E+00	6a	5.0E-03	6	5.0E-03	6a	1.4E-03	0	1.4E-03	5f
ANTIMONY	7440-36-0	4.0E-04	1	4.0E-04	6	1.0E-02	3	1.0E-02	7c	2.9E-03	5f	2.9E-03	5f
ARSENIC	7440-38-2	3.0E-04	1	3.0E-04	2	2.0E-05	3a	2.0E-05	7c	5.7E-06	5f	5.7E-06	5f
BARIUM	7440-39-3	2.0E-01	1	7.0E-02	1d	5.0E-04	2e	5.0E-03	2b	1.4E-04	5f	1.4E-03	5f
BERYLLIUM	7440-41-7	2.0E-03	1	5.0E-03	2	2.0E-05	1	2.0E-05	1j	5.7E-06	5f	5.7E-06	5f
CADMIUM	7440-43-9	5.0E-04	1c	5.0E-04	1d	2.0E-05	3a	2.0E-05	7c	5.7E-06	5f	5.7E-06	5f
CHROMIUM(III)	7440-47-3	1.5E+00	1	1.5E+00	1d	1.0E-04	1h	3.0E-04	1k	2.9E-05	5f	8.6E-05	5f
COBALT	7440-48-4	3.0E-04	6	3.0E-03	6	6.0E-06	6	2.0E-05	6	1.7E-06	0	5.7E-06	5f
COPPER	7440-50-8	4.0E-02	2	1.0E-02	A	--		--		--		--	
HEXAVALENT CHROMIUM	18540-29-9	3.0E-03	1	2.0E-02	2	1.0E-04	1	3.0E-04	1k	2.9E-05	5f	8.6E-05	5f
LEAD	7439-92-1	7.5E-04	4	7.5E-04	4	1.0E-03	3	1.0E-03	7c	2.9E-04	5f	2.9E-04	5f
MANGANESE	7439-96-5	1.4E-01	1	1.4E-01	1d	5.0E-05	1	5.0E-05	7c	1.4E-05	0	1.4E-05	5f

Table 23
Dose Response Data for Non-Cancer
Method 3 Risk Characterization
Conductorlab
Groton, MA

OIL OR HAZARDOUS MATERIAL	CAS	Chronic Oral Reference Dose (mg/kg/day)		Subchronic Oral Reference Dose (or substitute) (mg/kg/day)		Chronic Inhalation Reference Concentration (mg/m^3)		Subchronic Inhalation Reference Concentration (or substitute) (mg/m^3)		Chronic Inhalation Reference Dose[5f] (mg/kg/day)		Subchronic Inhalation Reference Dose (or Substitute)[5f] (mg/kg/day)	
MERCURY	7439-97-6	3.0E-04	2d	3.0E-04	2d	3.0E-04	1	3.0E-04	7c	8.6E-05	5f	8.6E-05	5f
NICKEL	7440-02-0	2.0E-02	1	2.0E-02	2	1.0E-03	3	1.0E-03	7c	2.9E-04	5f	2.9E-04	5f
SELENIUM	7782-49-2	5.0E-03	1	5.0E-03	2	3.0E-03	3	3.0E-03	7c	8.6E-04	5f	8.6E-04	5f
SILVER	7440-22-4	5.0E-03	1	5.0E-03	2	1.4E-04	5b	1.4E-04	7c	4.0E-05	5f	4.0E-05	5f
THALLIUM	7440-28-0	8.0E-05	1f	8.0E-04	1f	1.4E-05	5b	1.4E-05	7c	4.0E-06	5f	4.0E-06	5f
VANADIUM	7440-62-2	9.0E-03	1	9.0E-03	1	1.0E-03	3	1.0E-03	7c	2.9E-04	5f	2.9E-04	5f
ZINC	7440-66-6	3.0E-01	1	3.0E-01	2	1.4E-03	5b	1.4E-03	7c	4.0E-04	5f	4.0E-04	5f
Pesticides													
4,4'-DDE	72-55-9	5.0E-04	1g	5.0E-04	2g	1.8E-03	7b	1.8E-03	7c	5.1E-04	5f	5.1E-04	5f
4,4'-DDT	50-29-3	5.0E-04	1	5.0E-04	2	1.8E-03	7b	1.8E-03	7c	5.1E-04	5f	5.1E-04	5f

Notes and Abbreviations:

Prepared by: CF 3/22/2022

Checked by: KALS 6/15/2022

EPH - Extractable Petroleum Hydrocarbons.

-- - Not Available

VPH - Volatile Petroleum Hydrocarbons.

Toxicty values are not shown for chemicals of potential concern that are only being compared to Upper Concentration Limits,
as no risk calculations are being performed for these chemicals.

MassDEP obtains dose-response values from several sources. Per 310 CMR 40.0993(5)(a), preference is given to dose-response values derived by the MassDEP.
The notes provided by MassDEP are as follows:

1 - USEPA, Integrated Risk Information System (IRIS). Current as of February 2019.

1c - IRIS lists two oral RfDs for cadmium, one for food and one for water exposure. The more conservative is used.

1d - The chronic oral RfD (from IRIS) has been used here as a subchronic oral RfD equivalent.

1f - This value was withdrawn from IRIS. MassDEP continues to use it pending new toxicity information.

1g - The chronic oral Reference Dose for DDT has been adopted for DDD and DDE as well.

1h - The IRIS chronic RfC for Cr VI was used for CR III.

1i - The subchronic RfD is based upon the subchronic toxicity data that is the basis of the chronic RfD presented in the IRIS file.

1j - The subchronic RfC is set equal to the chronic RfC based on information in the IRIS file.

1k - The subchronic RfC is based upon the subchronic toxicity data that is the basis of the chronic RfC presented in the IRIS file.

2 - USEPA Health Effects Assessment Summary Tables (HEAST), Annual FY-1996.

Table 23
Dose Response Data for Non-Cancer
Method 3 Risk Characterization
Conductorlab
Groton, MA

OIL OR HAZARDOUS MATERIAL	CAS	Chronic Oral Reference Dose (mg/kg/day)	Subchronic Oral Reference Dose (or substitute) (mg/kg/day)	Chronic Inhalation Reference Concentration (mg/m^3)	Subchronic Inhalation Reference Concentration (or substitute) (mg/m^3)	Chronic Inhalation Reference Dose[5f] (mg/kg/day)	Subchronic Inhalation Reference Dose (or Substitute)[5f] (mg/kg/day)

2b - The subchronic RfC is based upon the subchronic toxicity data that is the basis of the chronic RfC presented in HEAST.

2d - This value has been withdrawn from HEAST, MassDEP continues to use it pending new information.

2e - From Table 2 of HEAST. Values in Table 2 were calculated by an alternative method.

2g - The subchronic oral RfD for DDT has been adopted for DDE and DDD as well.

3 - MassDEP Chemical Health Effects Assessment Methodology and Method to Derive Allowable Ambient Limits (CHEM/AAL)
http://www.mass.gov/dep/toxics/stypes/telaal.htm

3a - MassDEP Methodology for Updating Air Guidelines: Allowable Ambient Limits (AALs) and Threshold Effects Exposure Limits (TELs) (MassDEP 2011).
More info on the MassDEP Amibient Air Toxics Guidelines webpage. (http://www.mass.gov/eea/agencies/massdep/toxics/sources/air-guideline-values.html)

4 - Developed for the Risk Assessment ShortForm - Residential Scenario (MassDEP, 1992) by MassDEP staff. Documentation of this value may be found in Appendix D of that document.

5b - The RfCs for silver, thallium, and zinc were developed by MassDEP ORS Air/Water Toxics staff.

5c - Final Updated Petroleum Hydrocarbon Fraction Toxicity Values for the VPH/EPH/APH Methodology.
See: http://www.mass.gov/dep/cleanup/laws/tphtox03.doc

5d - Toxicity values for PAHs are consistent with the approach presented in "Updated Petroleum Hydrocarbon Fraction Toxicity Values for the VPH/EPH/APH Methodology" MassDEP 2003 and Characterizing Risks Posed by Petroleum Contaminated Sites MassDEP 2002.

5f - Conversion of the chronic or subchronic Reference Concentration to an inhalation Reference Dose using the equation: RfC x Ventilation Rate/ Body Weight
(RfC x V) / BW = (RfC x 20 m3/day) / 70 kg

6 - PPRTVs

6a - The chronic values is set equal to the PPRTV subchronic value.

7b - Conversion of the oral Reference Dose to a Reference Concentration, using the equation: RfD x BW / Ventilation Rate
RfC= (RfD x 70 kg) / 20 m3/day

7c - The Subchronic Inhalation Reference Concentration for this chemical is taken to be equal to the chronic value, absent clear chemical-specific information justifying a higher value.

For compounds not provided by MassDEP, toxicity values have been selected from the following sources using this hierarchy:

Tier 1: I - IRIS - Integrated Risk Information System (USEPA, 2016) (http://www.epa.gov/IRIS/).

Tier 2: PPRTV - Preliminary Peer-Reviewed Toxicity Value or Appendix (X) from the National Center for Environmental Assessment (NCEA) (http://hhpprtv.ornl.gov/).
ATSDR (A) - Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Level (MRL) (http://www.atsdr.cdc.gov/mrls/index.asp).

Table 24
Relative Absorption Factors
Method 3 Risk Characterization
Conductorlab
Groton, MA

OIL OR HAZARDOUS MATERIAL[b]	CAS	Soil RAFs [a]											
		Chronic Ingestion $RAF_{nc\text{-}ing}$		Sub-chronic Ingestion $RAF_{nc\text{-}ing\text{-}sc}$		Chronic Dermal $RAF_{nc\text{-}derm}$		Sub-chronic Dermal $RAF_{nc\text{-}derm\text{-}sc}$		Cancer Ingestion $RAF_{c\text{-}ing}$		Cancer Dermal $RAF_{c\text{-}derm}$	
Volatile Organic Compounds													
1,1,1-TRICHLOROETHANE	71-55-6	1	9e	1	9e	0.03	9e	0.03	9e	NC		NC	
1,1-DICHLOROETHENE	75-35-4	1	9e	1	9e	0.03	9e	0.03	9e	NC		NC	
1,4-DIOXANE	123-91-1	1	9e	1	9e	0.03	9e	0.03	9e	1	9e	0.03	9e
ACETONE	67-64-1	1	9e	1	9e	0.03	9e	0.03	9e	NC		NC	
cis-1,2-DICHLOROETHENE	156-59-2	1	9e	1	9e	0.03	9e	0.03	9e	NC		NC	
ETHYLBENZENE	100-41-4	1	9e	1	9e	0.03	9e	0.03	9e	NC		NC	
ISOPROPYLBENZENE	98-82-8	1	9e	1	9e	0.2	9e	0.2	9e	NC		NC	
M&P-XYLENES	NA	1	9e	1	9e	0.03	9e	0.03	9e	NC		NC	
METHYLENE CHLORIDE	75-09-2	1	9e	1	9e	0.03	9e	0.03	9e	1	9e	0.03	9e
O-XYLENE	95-47-6	1	9e	1	9e	0.03	9e	0.03	9e	NC		NC	
TETRACHLOROETHENE	127-18-4	1	9e	1	9e	0.03	9e	0.03	9e	1	9e	0.03	9e
TOLUENE	108-88-3	1	9e	1	9e	0.03	9e	0.03	9e	NC		NC	
TRICHLOROETHENE	79-01-6	1	9e	1	9e	0.03	9e	0.03	9e	1	9e	0.03	9e
VINYL CHLORIDE	75-01-4	1	9e	1	9e	0.03	9e	0.03	9e	1	9e	0.03	9e
Semi Volatile Organic Compounds													
2-METHYLNAPHTHALENE	91-57-6	0.3	9d	0.3	9d	0.1	9d	0.1	9d	NC		NC	
ACENAPHTHENE	83-32-9	0.3	9d	0.3	9d	0.1	9d	0.1	9d	NC		NC	
ANTHRACENE	120-12-7	0.3	9d	0.3	9d	0.1	9d	0.1	9d	NC		NC	
BENZO[A]ANTHRACENE	56-55-3	0.3	9d	0.3	9d	0.02	9d	0.02	9d	0.3	9d	0.02	9d
BENZO[A]PYRENE	50-32-8	0.3	9d	0.3	9d	0.02	9d	0.02	9d	0.3	9d	0.02	9d
BENZO[B]FLUORANTHENE	205-99-2	0.3	9d	0.3	9d	0.02	9d	0.02	9d	0.3	9d	0.02	9d
BENZO[G,H,I]PERYLENE	191-24-2	0.3	9d	0.3	9d	0.1	9d	0.1	9d	NC		NC	
BENZO[K]FLUORANTHENE	207-08-9	0.3	9d	0.3	9e	0.02	9d	0.02	9d	0.3	9d	0.02	9d
bis(2-ETHYLHEXYL)PHTHALATE	117-81-7	1	9e	1	9e	0.1	9e	0.1	9e	1	9e	0.1	9e
CHRYSENE	218-01-9	0.3	9d	0.3	9e	0.02	9d	0.02	9d	0.3	9d	0.02	9d
DIBENZ(A,H)ANTHRACENE	53-70-3	0.3	9d	0.3	9d	0.02	9d	0.02	9d	0.3	9d	0.02	9d
FLUORANTHENE	206-44-0	0.3	9d	0.3	9d	0.1	9d	0.1	9d	NC		NC	
FLUORENE	86-73-7	0.3	9d	0.3	9e	0.1	9d	0.1	9d	NC		NC	
INDENO[1,2,3-CD]PYRENE	193-39-5	0.3	9d	0.3	9d	0.02	9d	0.02	9d	0.3	9d	0.02	9d
NAPHTHALENE	91-20-3	0.3	9d	0.3	9d	0.1	9d	0.1	9d	NC		NC	
PHENANTHRENE	85-01-8	0.3	9d	0.3	9e	0.1	9d	0.1	9d	NC		NC	
PYRENE	129-00-0	0.3	9d	0.3	9d	0.1	9d	0.1	9d	NC		NC	
EPH													
ACENAPHTHENE	83-32-9	0.3	9d	0.3	9d	0.1	9d	0.1	9d	NC		NC	
ANTHRACENE	120-12-7	0.3	9d	0.3	9d	0.1	9d	0.1	9d	NC		NC	
BENZO[A]ANTHRACENE	56-55-3	0.3	9d	0.3	9d	0.02	9d	0.02	9d	0.3	9d	0.02	9d
BENZO[A]PYRENE	50-32-8	0.3	9d	0.3	9d	0.02	9d	0.02	9d	0.3	9d	0.02	9d
BENZO[G,H,I]PERYLENE	191-24-2	0.3	9d	0.3	9d	0.1	9d	0.1	9d	NC		NC	
BENZO[K]FLUORANTHENE	207-08-9	0.3	9d	0.3	9e	0.02	9d	0.02	9d	0.3	9d	0.02	9d
C11-C22 AROMATICS	NA	0.3	9d	0.3	9d	0.1	9d	0.1	9d	NC		NC	
C19-C36 ALIPHATICS	NA	1	9e	1	9e	0.2	9e	0.2	9e	NC		NC	
C9-C18 ALIPHATICS	NA	1	9e	1	9e	0.2	9e	0.2	9e	NC		NC	

Table 24
Relative Absorption Factors
Method 3 Risk Characterization
Conductorlab
Groton, MA

OIL OR HAZARDOUS MATERIAL[(b)]	CAS	Soil RAFs [(a)]											
		Chronic Ingestion $RAF_{nc\text{-}ing}$		Sub-chronic Ingestion $RAF_{nc\text{-}ing\text{-}sc}$		Chronic Dermal $RAF_{nc\text{-}derm}$		Sub-chronic Dermal $RAF_{nc\text{-}derm\text{-}sc}$		Cancer Ingestion $RAF_{c\text{-}ing}$		Cancer Dermal $RAF_{c\text{-}derm}$	
CHRYSENE	218-01-9	0.3	9d	0.3	9e	0.02	9d	0.02	9d	0.3	9d	0.02	9d
DIBENZ(A,H)ANTHRACENE	53-70-3	0.3	9d	0.3	9d	0.02	9d	0.02	9d	0.3	9d	0.02	9d
FLUORANTHENE	206-44-0	0.3	9d	0.3	9d	0.1	9d	0.1	9d	NC		NC	
FLUORENE	86-73-7	0.3	9d	0.3	9e	0.1	9d	0.1	9d	NC		NC	
NAPHTHALENE	91-20-3	0.3	9d	0.3	9d	0.1	9d	0.1	9d	NC		NC	
PHENANTHRENE	85-01-8	0.3	9d	0.3	9e	0.1	9d	0.1	9d	NC		NC	
PYRENE	129-00-0	0.3	9d	0.3	9d	0.1	9d	0.1	9d	NC		NC	
VPH													
C9-C10 AROMATICS	NA	1	9e	1	9e	0.2	9e	0.2	9e	NC		NC	
C9-C12 ALIPHATICS	NA	1	9e	1	9e	0.2	9e	0.2	9e	NC		NC	
ETHYLBENZENE	100-41-4	1	9e	1	9e	0.03	9e	0.03	9e	NC		NC	
M&P-XYLENES	NA	1	9	1	9	0.1	9	0.1	9	NC		NC	
O-XYLENE	95-47-6	1	9e	1	9e	0.03	9e	0.03	9e	NC		NC	
TOLUENE	108-88-3	1	9e	1	9e	0.03	9e	0.03	9e	NC		NC	
Metals													
ALUMINUM	7429-90-5	1	9e	1	9e	0.1	9e	0.1	9e	NC		NC	
ANTIMONY	7440-36-0	1	9e	1	9e	0.1	9e	0.1	9e	NC		NC	
ARSENIC	7440-38-2	0.5	9e	0.5	9e	0.03	9f	0.03	9f	0.5	9e	0.03	9e
BARIUM	7440-39-3	1	9e	1	9e	0.1	9e	0.1	9e	NC		NC	
BERYLLIUM	7440-41-7	1	9e	1	9e	0.1	9e	0.1	9e	NC		NC	
CADMIUM	7440-43-9	0.5	9g	0.5	9g	0.01	9e	0.01	9e	NC		NC	
CHROMIUM(III)	7440-47-3	1	9e	1	9e	0.1	9e	0.1	9e	NC		NC	
COBALT	7440-48-4	1	9e	1	9e	0.1	9e	0.1	9e	NC		NC	
COPPER	7440-50-8	1	9e	1	9e	0.1	9e	0.1	9e	NC		NC	
HEXAVALENT CHROMIUM	18540-29-9	1	9e	1	9d	0.1	9e	0.1	9e	NC		NC	
LEAD	7439-92-1	0.5	9	0.5	9	0.006	9	0.006	9	NC		NC	
MANGANESE	7439-96-5	1	9e	1	9e	0.1	9e	0.1	9e	NC		NC	
MERCURY	7439-97-6	0.5	9e	0.5	9e	0.1	9e	0.1	9e	NC		NC	
NICKEL	7440-02-0	1	9e	1	9e	0.2	9e	0.2	9e	NC		NC	
SELENIUM	7782-49-2	1	9e	1	9e	0.01	9e	0.01	9e	NC		NC	
SILVER	7440-22-4	1	9e	1	9e	0.3	9e	0.3	9e	NC		NC	
THALLIUM	7440-28-0	1	9e	1	9e	0.01	9e	0.01	9e	NC		NC	
VANADIUM	7440-62-2	1	9e	1	9e	0.1	9e	0.1	9e	NC		NC	
ZINC	7440-66-6	1	9e	1	9e	0.1	9e	0.1	9e	NC		NC	
Pesticides													
4,4'-DDE	72-55-9	1	9e	1	9e	0.03	9e	0.03	9e	1	9e	0.03	9e
4,4'-DDT	50-29-3	1	9e	1	9e	0.03	9e	0.03	9e	1	9e	0.03	9e

Table 24
Relative Absorption Factors
Method 3 Risk Characterization
Conductorlab
Groton, MA

OIL OR HAZARDOUS MATERIAL[(b)]	CAS	Soil RAFs [(a)]					
		Chronic Ingestion $RAF_{nc\text{-}ing}$	Sub-chronic Ingestion $RAF_{nc\text{-}ing\text{-}sc}$	Chronic Dermal $RAF_{nc\text{-}derm}$	Sub-chronic Dermal $RAF_{nc\text{-}derm\text{-}sc}$	Cancer Ingestion $RAF_{c\text{-}ing}$	Cancer Dermal $RAF_{c\text{-}derm}$

Notes:

Prepared by: CF 3/22/2022

Checked by: KALS 6/15/2022

EPH - Extractable Petroleum Hydrocarbons.

NA - Not Available

VPH - Volatile Petroleum Hydrocarbons.

NC - Not considered to be carcinogenic

Toxicty values are not shown for chemicals of potential concern that are only being compared to Upper Concentration Limits, as no risk calculations are being performed for these chemicals.

MassDEP obtains dose-response values from several sources. Per 310 CMR 40.0993(5)(a), preference is given to dose-response values derived by the MassDEP.

The notes provided by MassDEP are as follows:

1: Default values. If there is no Reference Concentration, a non-cancer inhalation RAF was not implied. If there is no Inhalation Unit Risk, a cancer inhalation RAF was not implied.

9 - MassDEP 2012 RAF Review. Unless specified otherwise, due to data limitations and consistent with the approach in Ontario Ministry of the Environment (2011 - for full reference see note 48e), a default RAF of 1 was chosen for all organic compounds for oral ingestion of contaminated soil and water.

9d - MassDEP 2012 RAF Review - Based on Magee B, Andersen P and Burmaster. (1996). Absorption Adjustment Factor (AAF) Distributions for Polycyclic Aromatic Hydrocarbons (PAHs). Human and Ecological Risk Assessment 2:841-873.

9e - MassDEP 2012 RAF Review - Based on Ontario Ministry of the Environment (2011). Rationale for the Development of Soil and Ground Water Standards for Use at Contaminated Sites in Ontario (April 15, 2011, Standards Development Branch, Ontario Ministry of the Environment (see Section 2.6, Development of Relative Absorption Factors, pp 61-67 and Table 2.35b Estimation of Dermal Relative Absorption Factors (RAFs) PP 120- 141) http://www.ene.gov.on.ca/environment/en/resources/STDPROD_081485.html; Accessed March 22, 2012.

9f - MassDEP 2012 RAF Review - Based on USEPA (2004). Risk Assessment Guidance for Superfund Volume 1: Human Health Evaluation Manual Part E, Supplemental Guidance for Dermal Risk Assessment.

9g - MassDEP 2013 - Consistent with information in the IRIS file, an RAF of .5 is used for Cadmium to adjust the water reference dose for soil.

a) - Generic default value used in the absence of MassDEP specified value.

b) - RAFs shown only for OHMPCs per each exposure pathway/media. RAFs for inhalation are assumed to be 1 for all compounds and are not shown.

Table 25
Summary of Cancer and Non-Cancer Risks - All Media
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

POTENTIAL RECEPTOR	EXPOSURE AREA	EXPOSURE MEDIUM	EXPOSURE ROUTE AND MIGRATION PATHWAY	CHRONIC HAZARD INDEX	SUBCHRONIC HAZARD INDEX	ELCR
Current Trespasser	**On-Property**	Surface Soil (0-3 ft)	Ingestion/Dermal	0.047	0.079	8.1E-07
			TOTAL:	0.05	0.08	8.E-07
	Off-Property	Surface Water	Ingestion/Dermal	0.050	NA	1.4E-07
		Sediment	Ingestion/Dermal	0.018	0.058	4.3E-08
			TOTAL:	0.07	0.06	2.E-07
Future Trespasser	**On-Property**	Subsurface Soil (3-15 ft)	Ingestion/Dermal	0.049	0.079	7.5E-07
			TOTAL:	0.05	0.08	7.E-07
Resident (1-31 yrs)	**Off-Property**	Surface Water	Ingestion/Dermal	0.14	NA	9.7E-07
		Sediment	Ingestion/Dermal	0.06	0.22	3.6E-07
			TOTAL:	0.2	0.2	1.E-06
Future Worker	**On-Property**	Surface Soil (0-3 ft)	Ingestion/Dermal	0.18	NA	3.2E-07
			Inhalation of Particulates	0.086	NA	4.7E-07
			TOTAL:	0.3	NA	8E-07
		Subsurface Soil (3-15 ft)	Ingestion/Dermal	0.20	NA	5.7E-07
			Inhalation of Particulates	0.096	NA	1.2E-06
			TOTAL:	0.3	NA	2E-06
Future Construction Worker	**On-Property**	Combined Surface & Subsurface Soil (0-15 ft)	Ingestion/Dermal & Inhalation of Particulates	NA	0.59	1.2E-07
		Groundwater	Ingestion/Dermal	NA	0.069	3.3E-08
		Excavation Air	Inhalation	NA	0.18	1.6E-08
			TOTAL:	NA	0.8	2.E-07
	Off-Property	Groundwater	Ingestion/Dermal	NA	0.0064	1.1E-09
		Excavation Air	Inhalation	NA	0.018	1.3E-09
			TOTAL:	NA	0.02	2.E-09
			MassDEP RISK LIMIT:	1	1	1E-05

Prepared by: CF 5/10/2022
Checked by: KALS 6/21/2022

Notes:
Bold values indicate values that are higher than MassDEP risk limits.
NA: not applicable or not evaluated

Table 26
Comparison of Soil and Groundwater EPCs to Upper Concentration Limits (UCLs)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical	Soil Sitewide Average All Depths	Soil UCL	Soil Sitewide Average Exceeds UCL?	Groundwater Sitewide Average	Groundwater Bedrock Average Detected Concentration	Groundwater UCL	Groundwater Sitewide Average Exceeds UCL?	Bedrock groundwater average exceeds UCL?
Units	mg/kg	mg/kg		mg/L	mg/L	mg/L		
VOCs								
1,2-Dichloroethane	-	1.00E+03	NA	-	1.39E-02	1.00E+02	NA	no
1,1-Dichloroethene	-	1.00E+04	NA	4.94E-03	-	1.00E+02	no	NA
1,1,1-Trichloroethane	4.86E-02	1.00E+04	no	-	-	1.00E+02	NA	NA
1,1,2-Trichloroethane	-	1.00E+03	NA	-	4.53E-02	1.00E+02	NA	no
1,1,2,2-Tetrachloroethane	-	1.00E+03	NA	-	5.10E-01	1.00E+02	NA	no
Carbon tetrachloride	-	1.00E+03	NA	-	6.00E-03	1.00E+02	NA	no
Chloroethane	-	1.00E+03	NA	9.52E-03	-	1.00E+02	no	NA
Chloroform	-	1.00E+03	NA	-	1.92E-01	1.00E+02	NA	no
Chloromethane	-	1.00E+03	NA	-	1.93E-01	1.00E+02	NA	no
cis-1,2-Dichloroethene	6.94E-02	5.00E+03	no	1.41E-01	9.43E-01	1.00E+02	no	no
Ethylbenzene	6.45E+00	1.00E+04	no	-	-	1.00E+02	NA	NA
Isopropylbenzene	8.71E-02	1.00E+03	no	-	-	1.00E+02	NA	NA
m&p-Xylenes	2.91E+01	1.00E+04	no	-	-	1.00E+02	NA	NA
Methylene Chloride	3.09E-02	7.00E+03	no	5.62E-03	3.30E-01	1.00E+02	no	no
o-Xylene	7.59E+00	1.00E+03	no	-	-	1.00E+02	NA	NA
Tetrachloroethene	3.62E-02	1.00E+04	no	5.02E-03	1.28E-02	1.00E+02	no	no
Toluene	1.88E+00	1.00E+04	no	4.85E-03	1.49E-01	1.00E+02	no	no
Trans-1,2-Dichloroethene	-	1.00E+04	NA	2.96E-02	1.75E-02	1.00E+02	no	no
Trichloroethene	3.25E-01	6.00E+02	no	6.79E-01	1.47E+01	5.00E+01	no	no
Vinyl chloride	4.55E-02	6.00E+02	no	3.41E-02	3.71E-01	1.00E+02	no	no
SVOCs								
2-Methylnaphthalene	2.35E-01	5.00E+03	no	-	-	1.00E+02	NA	NA
Acenaphthene	2.27E-01	1.00E+04	no	-	-	1.00E+02	NA	NA
Anthracene	1.91E-01	1.00E+04	no	-	-	6.00E-01	NA	NA
Benzo[a]anthracene	1.74E-01	3.00E+03	no	-	-	1.00E+01	NA	NA
Benzo[a]pyrene	1.58E-01	3.00E+02	no	-	-	5.00E+00	NA	NA
Benzo[g,h,i]perylene	1.45E-01	1.00E+04	no	-	-	5.00E-01	NA	NA
Benzo[k]fluoranthene	1.50E-01	1.00E+04	no	-	-	1.00E+00	NA	NA
Bis(2-ethylhexyl)phthalate	2.62E-01	1.00E+04	no	-	-	1.00E+02	NA	NA
Chrysene	1.67E-01	1.00E+04	no	-	-	7.00E-01	NA	NA
Dibenz(a,h)anthracene	1.35E-01	1.00E+03	no	-	-	1.00E+02	NA	NA
Fluoranthene	2.06E-01	1.00E+04	no	-	-	2.00E+00	NA	NA
Fluorene	1.90E-01	1.00E+04	no	-	-	4.00E-01	NA	NA
Naphthalene	2.72E-01	1.00E+04	no	-	-	1.00E+02	NA	NA
Phenanthrene	3.39E-01	1.00E+04	no	-	-	1.00E+02	NA	NA

Table 26
Comparison of Soil and Groundwater EPCs to Upper Concentration Limits (UCLs)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical	Soil Sitewide Average All Depths	Soil UCL	Soil Sitewide Average Exceeds UCL?	Groundwater Sitewide Average	Groundwater Bedrock Average Detected Concentration	Groundwater UCL	Groundwater Sitewide Average Exceeds UCL?	Bedrock groundwater average exceeds UCL?
Units	mg/kg	mg/kg		mg/L	mg/L	mg/L		
Pyrene	2.52E-01	1.00E+04	no	-	-	6.00E-01	NA	NA
EPH								
Acenaphthene	1.95E-01	1.00E+04	no	-	-	1.00E+02	NA	NA
Anthracene	2.03E-01	1.00E+04	no	-	-	6.00E-01	NA	NA
Benzo[a]anthracene	2.45E-01	3.00E+03	no	-	-	1.00E+01	NA	NA
Benzo[a]pyrene	2.22E-01	3.00E+02	no	-	-	5.00E+00	NA	NA
Benzo[g,h,i]perylene	1.99E-01	1.00E+04	no	-	-	5.00E-01	NA	NA
Benzo[k]fluoranthene	2.23E-01	1.00E+04	no	-	-	1.00E+00	NA	NA
C11-C22 Aromatics	5.47E+00	1.00E+04	no	-	-	1.00E+02	NA	NA
C19-C36 Aliphatics	5.08E+00	2.00E+04	no	-	-	1.00E+02	NA	NA
C9-C18 Aliphatics	3.76E+00	2.00E+04	no	-	-	1.00E+02	NA	NA
Chrysene	2.44E-01	1.00E+04	no	-	-	7.00E-01	NA	NA
Dibenz(a,h)anthracene	1.96E-01	1.00E+03	no	-	-	1.00E+02	NA	NA
Fluoranthene	2.96E-01	1.00E+04	no	-	-	2.00E+00	NA	NA
Fluorene	1.95E-01	1.00E+04	no	-	-	4.00E-01	NA	NA
Naphthalene	1.99E-01	1.00E+04	no	-	-	1.00E+02	NA	NA
Phenanthrene	2.52E-01	1.00E+04	no	-	-	1.00E+02	NA	NA
Pyrene	2.90E-01	1.00E+04	no	-	-	6.00E-01	NA	NA
VPH								
C9-C10 Aromatics	8.69E+01	5.00E+03	no	-	-	1.00E+02	NA	NA
C9-C12 Aliphatics	1.84E+02	2.00E+04	no	-	-	1.00E+02	NA	NA
Ethylbenzene	7.92E+01	1.00E+04	no	-	-	1.00E+02	NA	NA
m&p-Xylenes	3.61E+02	1.00E+04	no	-	-	1.00E+02	NA	NA
o-Xylene	8.78E+01	1.00E+03	no	-	-	1.00E+02	NA	NA
Toluene	1.25E+01	1.00E+04	no	-	1.49E-01	1.00E+02	NA	no
Metals								
Aluminum	1.41E+04	NA	NA	-	-	NA	NA	NA
Antimony	1.94E+00	3.00E+02	no	-	-	8.00E+01	NA	NA
Barium	6.56E+01	1.00E+04	no	-	-	1.00E+02	NA	NA
Beryllium	3.41E-01	2.00E+03	no	-	-	2.00E+00	NA	NA
Chromium	3.50E+02	1.00E+04	no	1.67E-01	1.96E-01	6.00E+00	no	no
Cobalt	9.71E+00	1.00E+03	no	-	-	1.00E+02	NA	NA
Copper	2.01E+02	1.00E+03	no	-	-	1.00E+02	NA	NA
Hexavalent Chromium	2.43E+01	2.00E+03	no	1.06E-01	2.50E-01	3.00E+00	no	no
Lead	3.99E+01	6.00E+03	no	-	-	1.50E-01	NA	NA
Manganese	2.98E+02	1.00E+03	no	-	-	1.00E+02	NA	NA

Table 26
Comparison of Soil and Groundwater EPCs to Upper Concentration Limits (UCLs)
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Chemical	Soil Sitewide Average All Depths	Soil UCL	Soil Sitewide Average Exceeds UCL?	Groundwater Sitewide Average	Groundwater Bedrock Average Detected Concentration	Groundwater UCL	Groundwater Sitewide Average Exceeds UCL?	Bedrock groundwater average exceeds UCL?
Units	mg/kg	mg/kg		mg/L	mg/L	mg/L		
Mercury	4.61E-02	3.00E+02	no	-	-	2.00E-01	NA	NA
Nickel	3.82E+01	1.00E+04	no	-	-	2.00E+00	NA	NA
Selenium	7.69E-01	7.00E+03	no	-	-	1.00E+00	NA	NA
Silver	2.85E+00	2.00E+03	no	-	-	1.00E+00	NA	NA
Thallium	1.50E+00	8.00E+02	no	-	-	3.00E+01	NA	NA
Vanadium	3.27E+01	7.00E+03	no	-	-	4.00E+01	NA	NA
Zinc	4.59E+01	1.00E+04	no	-	-	5.00E+01	NA	NA

Notes:
UCL: MassDEP Upper Concentration Limit per 310 CMR 40.0996(7). Note UCLs are not applicable to aluminum.
"-" - Not a compound of concern for this data set
NA: not applicable

Prepared by: CF 10/2/2020 & 3/21/2022
Checked by: KALS 6/16/2022

FIGURES

Figure 1	Site Plan and Site Features
Figure 2	Conceptual Site Model
Figure 3	Surface Soil Sampling Locations
Figure 4	Subsurface Soil Sampling Locations
Figure 5	On Property Monitoring Wells
Figure 6	Off Property Monitoring Wells
Figure 7	Surface Water and Sediment Sampling Locations
Figure 8	Soil Hexavalent Chromium Hot Spot Evaluation

ARLINGTON STREET

UNNAMED BROOK

APPROXIMATE PROPERTY BOUNDARY

FENCE

CONCRETE PAD

LOCATION OF FORMER TREATMENT BUILDING (DEMOLISHED)

MAIN STREET (ROUTE 119)

DISPOSAL SITE BOUNDARY FOR RTN 2-0053

GRATUITY BROOK

Legend

- Site Boundary
- Approximate Property Boundary
- Intermittent Stream
- Stream
- Fence
- Structure or House
- Road

N

0 50 100 Feet

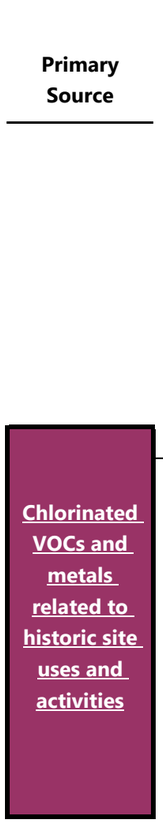
Conductorlab Site
Honeywell International Inc.
Groton, Massachusetts

wsp

Figure 1
Site Plan and Site Features

Document: \\wfs5-fs1\Projects\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLab\MapDocuments\Figure 1_Site Features.mxd 08/10/2022 04:46 PM jenna.mello

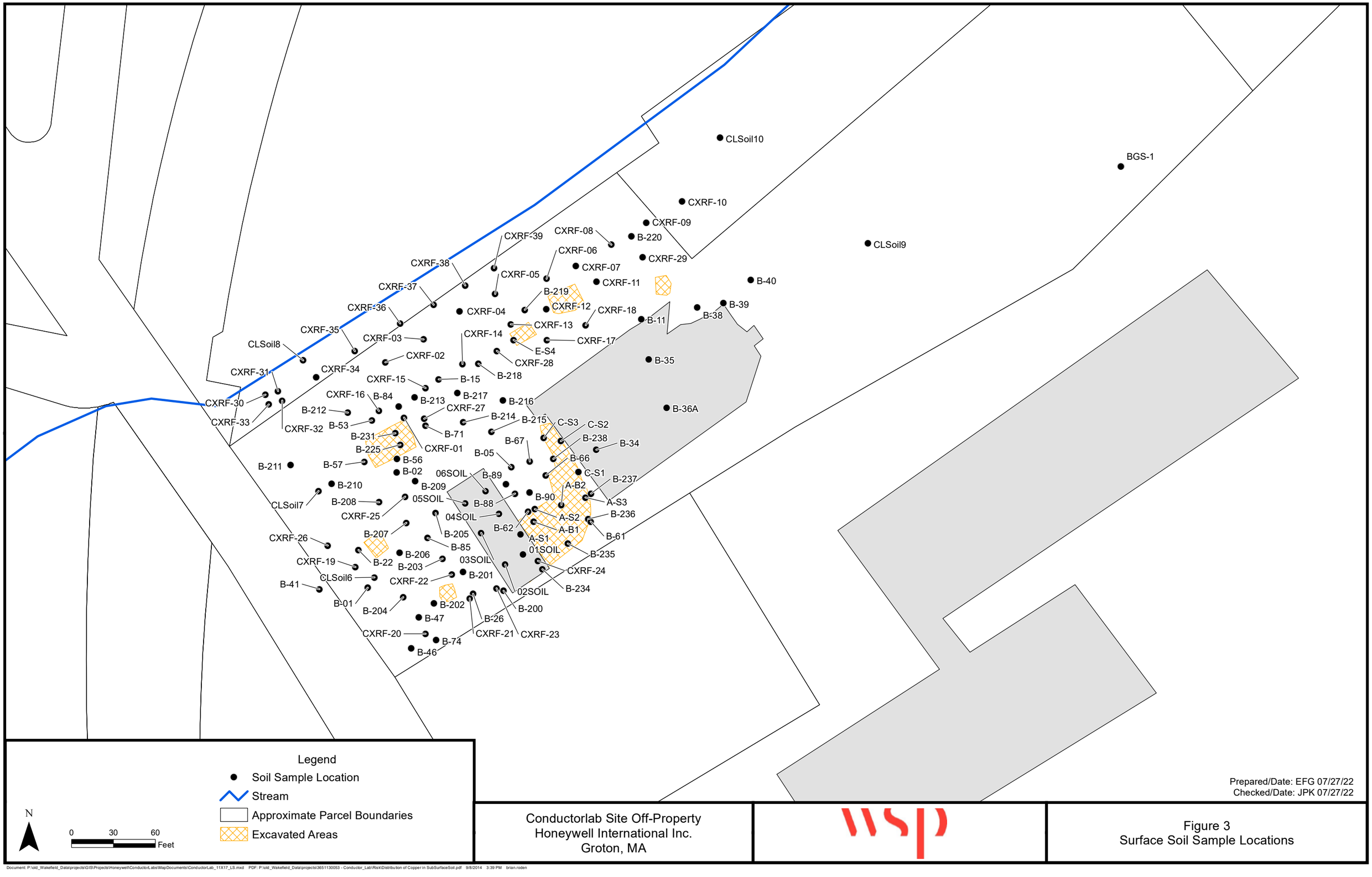
Figure 2
Risk Assessment Conceptual Site Model
Risk Characterization
Conductorlab
Groton, Massachusetts



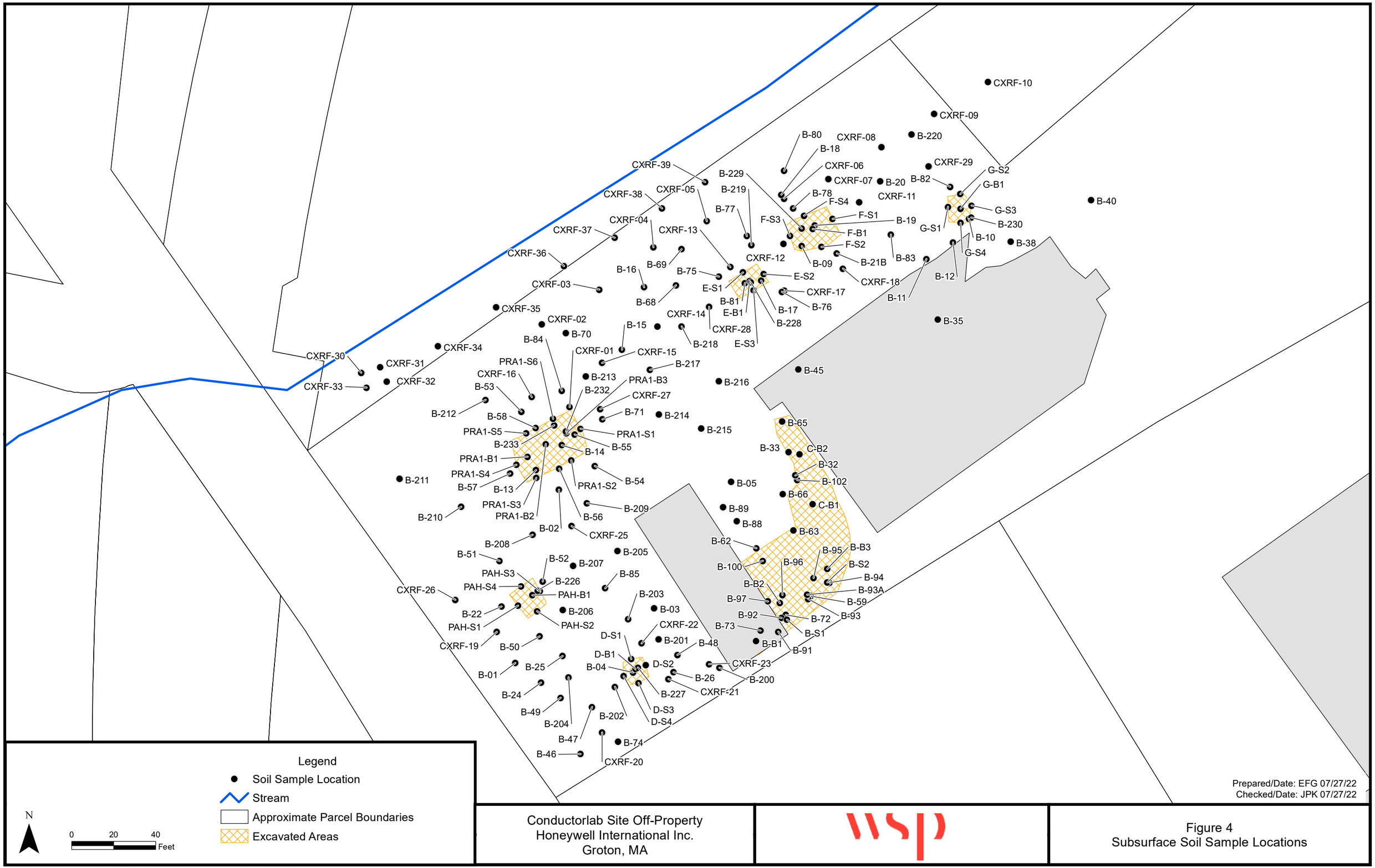
Primary Source	Primary Transport Mechanism	Primary Exposure Medium	Secondary Transport Mechanism	Secondary Exposure Medium	Exposure Route	Exposure Area: On-Property: Current Emergency Utility Worker	Current Trespasser	Future Trespasser	Future Commercial Worker	Future Construction Worker	Future Utility Worker[b]	Off-Property: Current Emergency Utility Worker	Current Trespasser	Resident [c]	Future Construction Worker	Future Utility Worker[b]
Chlorinated VOCs and metals related to historic site uses and activities	Historic Releases	Surface Soils (0-3 ft bgs)			Incidental Ingestion	Q	X		X	X	Q					
					Dermal Contact	Q	X		X	X	Q					
			Wind Dispersion		Inhalation of airborne particles in ambient air	Q			X	X	Q					
	Percolation & Leaching	Subsurface Soils (3-15 ft bgs)			Incidental Ingestion	Q		X	X	X	Q					
					Dermal Contact	Q		X	X	X	Q					
			Wind Dispersion		Inhalation of airborne particles in ambient air	Q			X	X	Q					
		Groundwater [a,c]			Incidental Ingestion	Q				X	Q	Q			X	Q
					Dermal Contact	Q				X	Q	Q			X	Q
			Volatilization		Inhalation of volatiles during excavation	Q				X	Q	Q			X	Q
					Inhalation of volatiles in indoor air (vapor intrusion)				(d)					(c)		
			Percolation & Leaching	Surface Water	Incidental Ingestion								X	X		
					Dermal Contact								X	X		
				Sediment	Incidental Ingestion								X	X		
					Dermal Contact								X	X		

Notes:
X: Indicates a complete exposure pathway. Blank cells indicate an incomplete or negligible exposure pathway.
Q: Indicates the pathway was qualitatively evaluated.
ft bgs: feet below ground surface
On-Property refers to the property at 430 Main Street; Off-Property refers to the remainder of the Disposal Site outside of 430 Main Street.
(a) The potable use pathway for groundwater is considered incomplete. Private properties that had previously used groundwater for potable water have Notices Restricting Use of Groundwater that do not allow the groundwater to be used for personal, domestic, or industrial purposes.
(b) The future construction worker is assumed to be exposed to combined surface and subsurface soils. This scenario is used as a surrogate for evaluation of the utility worker, which would be a lower intensity, assumed shorter duration exposure.
(c) Previous investigations of a potential vapor intrusion at off-property residences have demonstrated that this pathway is not complete (HMM Associates, Inc., 1993).
(d) There is not a potential complete exposure pathway for vapor intrusion on-property because there are no buildings present, and no buildings are planned to be constructed. The PSS to which this HHRC is appended also includes a "condition" that construction of any future buildings at the property include a vapor intrusion evaluation to consider the need for vapor intrusion mitigation measures, pursuant to 310 CMR 40.1013(1)(d).

Prepared by: JPK 5/24/2022
Checked by: CF 7/28/2022



Document: P:\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLabs\MapDocuments\ConductorLab_11X17_LS.mxd PDF: P:\old_Wakefield_Data\projects\3651130053 - Conductor_Lab\Risk\Distribution of Copper in SubSurfaceSoil.pdf 9/8/2014 3:39 PM brian.roden

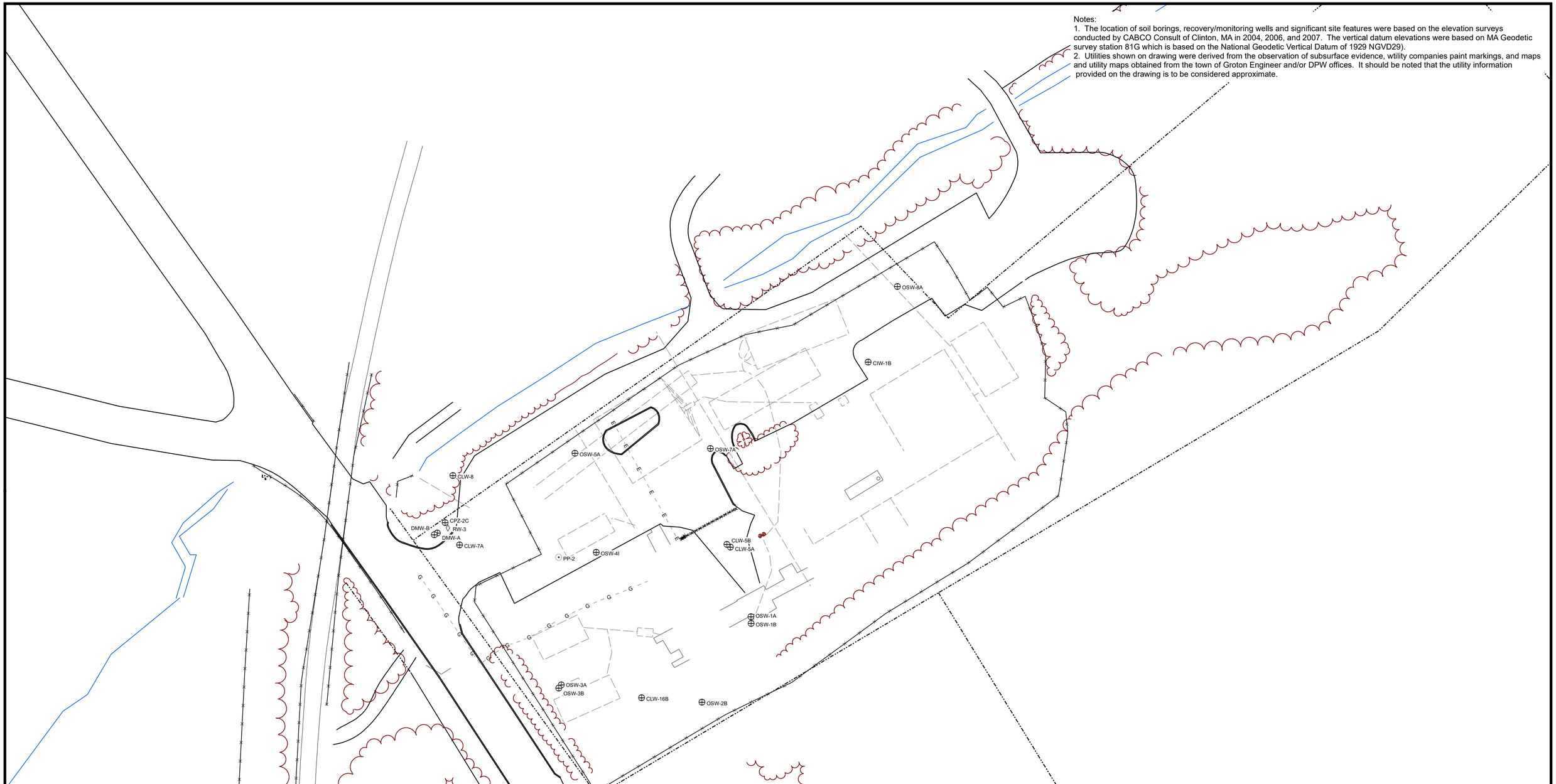


Conductorlab Site Off-Property
Honeywell International Inc.
Groton, MA

Figure 4
Subsurface Soil Sample Locations

Document: \\wfd-fs1\Projects\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLab\MapDocuments\ConductorLab_11X17_LS_Risk_SubsurfSoil.mxd

Notes:
1. The location of soil borings, recovery/monitoring wells and significant site features were based on the elevation surveys conducted by CABCO Consult of Clinton, MA in 2004, 2006, and 2007. The vertical datum elevations were based on MA Geodetic survey station 81G which is based on the National Geodetic Vertical Datum of 1929 NGVD29).
2. Utilities shown on drawing were derived from the observation of subsurface evidence, wtility companies paint markings, and maps and utility maps obtained from the town of Groton Engineer and/or DPW offices. It should be noted that the utility information provided on the drawing is to be considered approximate.



Legend

- Monitoring Well
- Piezometer
- Recovery Well
- Fence
- Property Boundary
- Drain Line
- Active Gas Line
- Overhead Wires
- Underground Electric Line
- Stream
- Tree Line

N

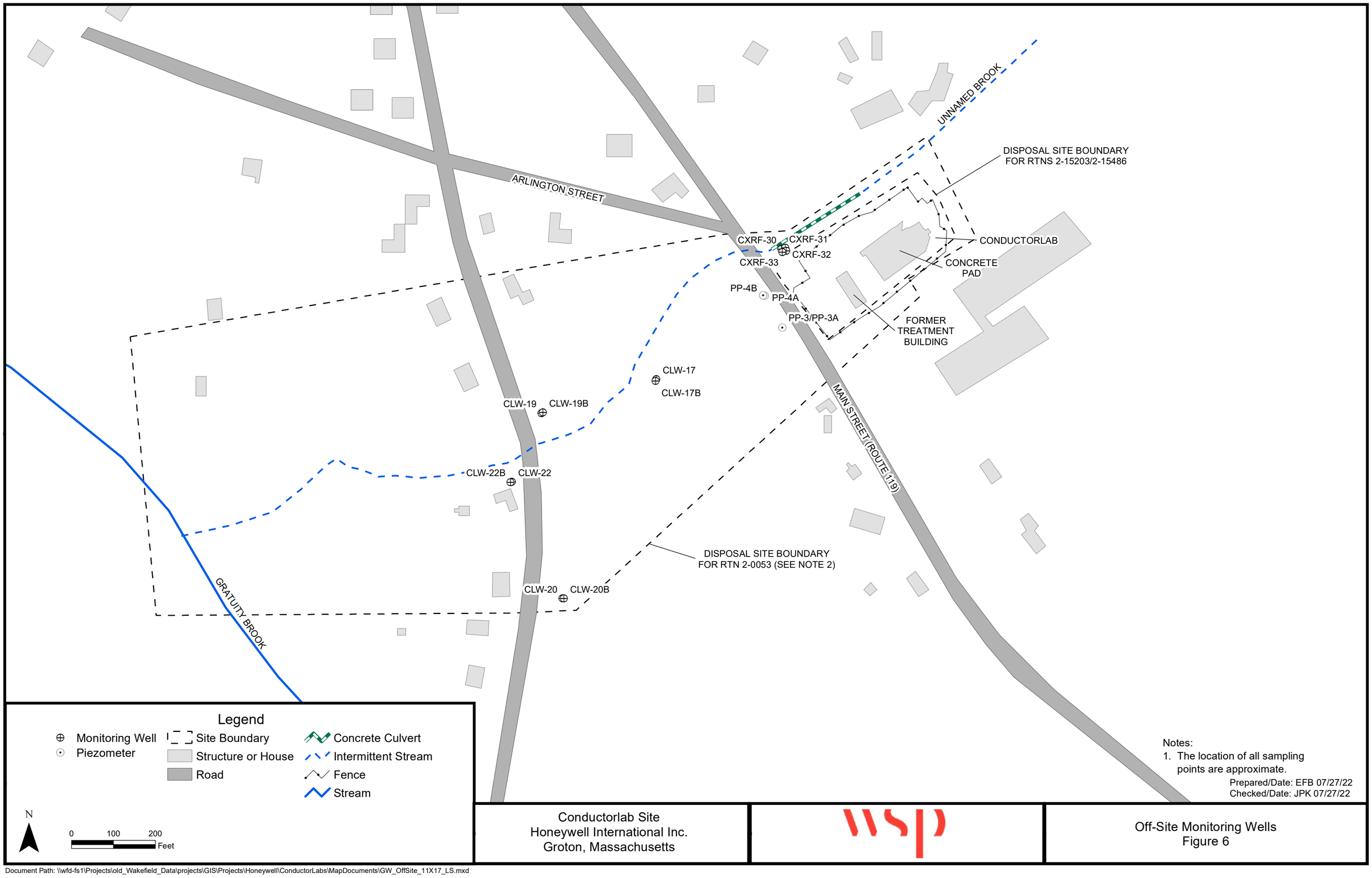
0 30 60 Feet

Conductorlab Site
Honeywell International Inc.
Groton, Massachusetts

wsp

On-Property Wells
Figure 5

Document: \\wf4-fs1\Projects\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLab\MapDocuments\GW_OnSite_DSize.mxd 07/27/2022 09:50 AM jenna.mello



Notes:

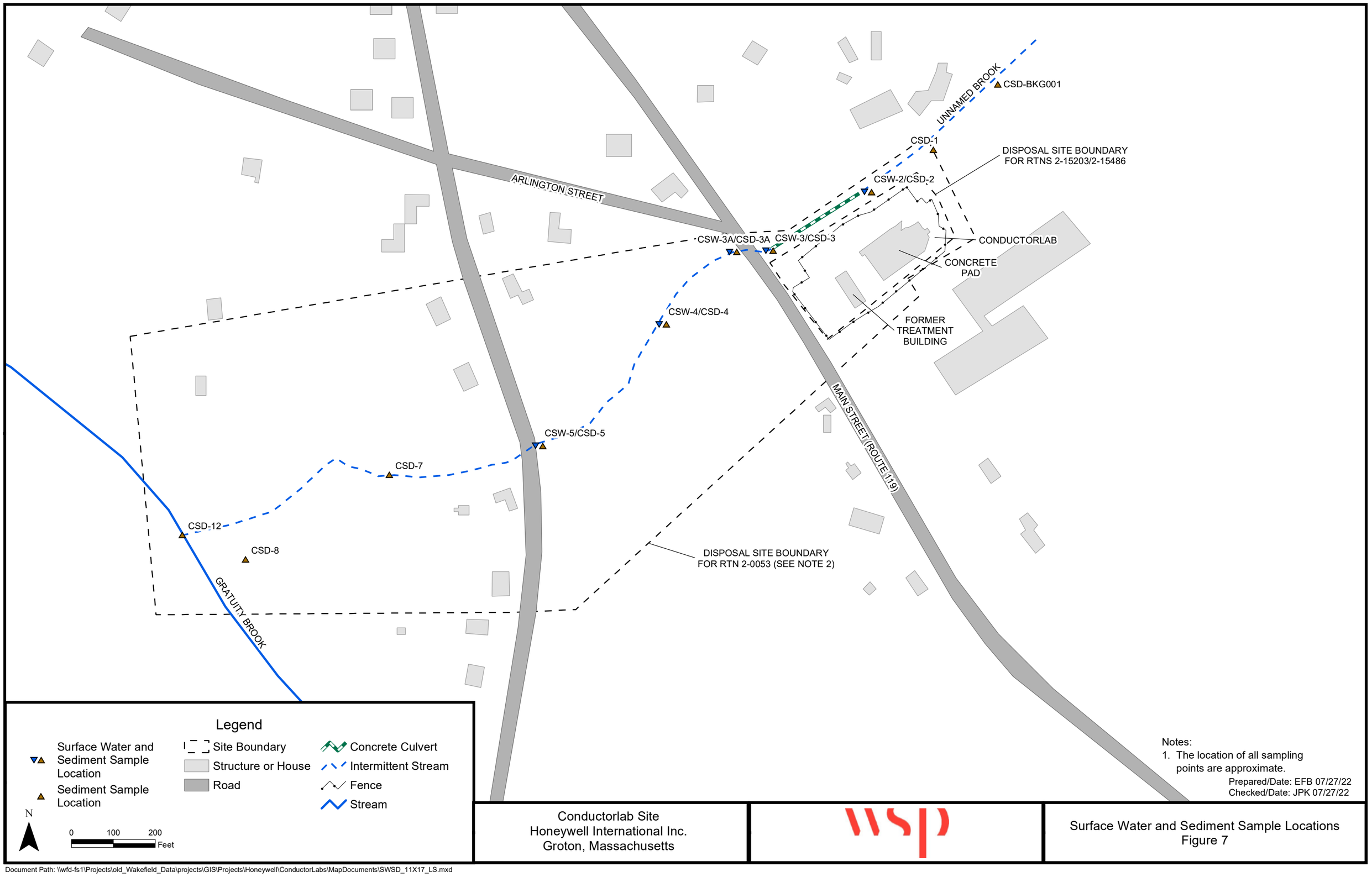
1. The location of all sampling points are approximate.

Prepared/Date: EFB 07/27/22
Checked/Date: JPK 07/27/22

Conductorlab Site
Honeywell International Inc.
Groton, Massachusetts

Off-Site Monitoring Wells
Figure 6

Document Path: \\wfd-fs1\Projects\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLabs\MapDocuments\GW_OffSite_11X17_LS.mxd



Notes:

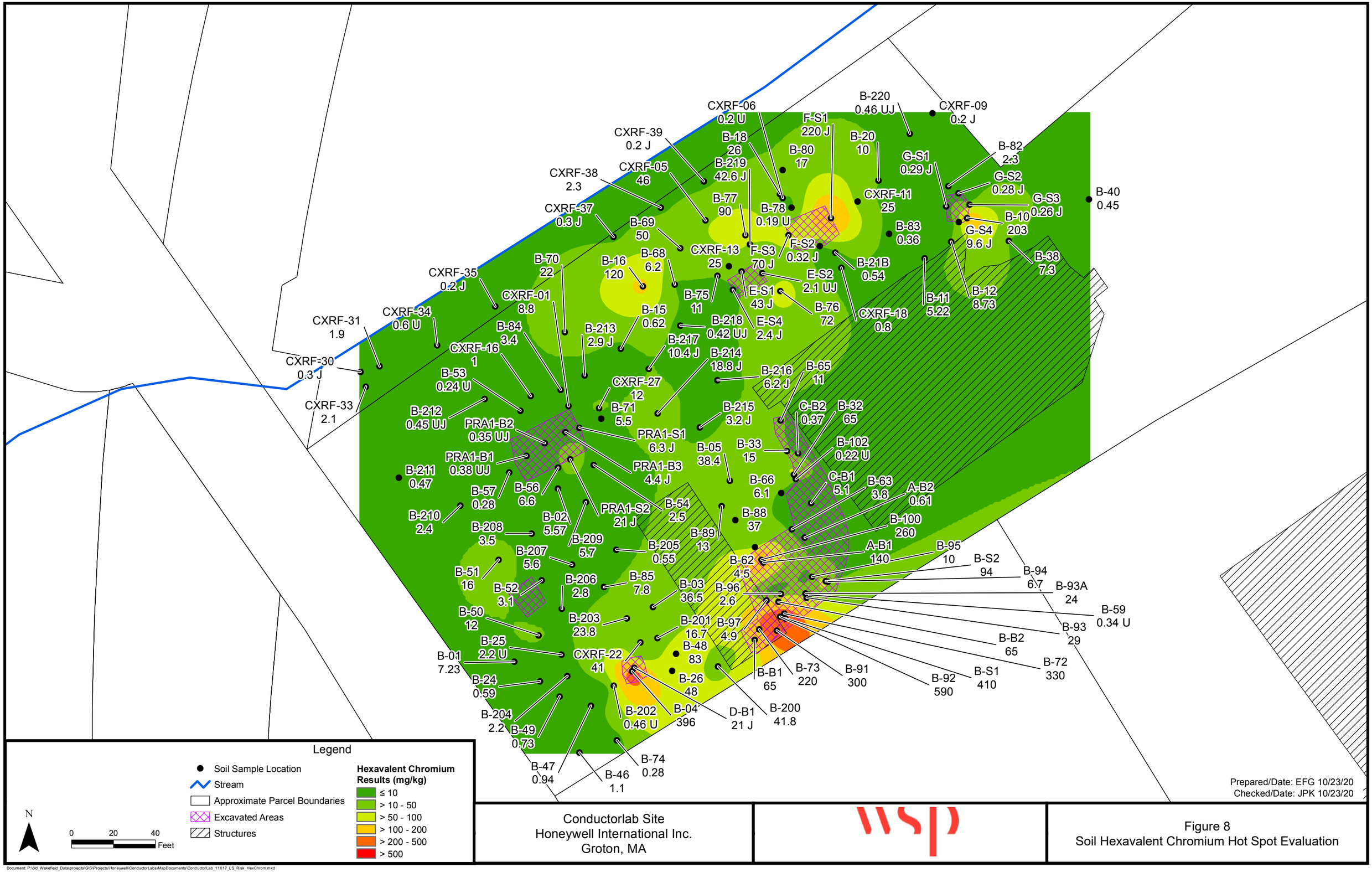
1. The location of all sampling points are approximate.

Prepared/Date: EFB 07/27/22
Checked/Date: JPK 07/27/22

Conductorlab Site
Honeywell International Inc.
Groton, Massachusetts

Surface Water and Sediment Sample Locations
Figure 7

Document Path: \\wfd-fs1\Projects\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLabs\MapDocuments\SWSD_11X17_LS.mxd



Conductorlab Site
Honeywell International Inc.
Groton, MA

Figure 8
Soil Hexavalent Chromium Hot Spot Evaluation

Document: P:\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLabs\MapDocuments\ConductorLab_11X17_LS_Risk_HexChrom.mxd

ATTACHMENT A

Table A-1	Soil Data
Table A-2	Groundwater VOC Data
Table A-3	Groundwater Metals Data
Table A-4	Groundwater General Chemistry Data
Table A-5	Groundwater Bedrock Data
Table A-6	Surface Water VOC Data
Table A-7	Surface Water Metals Data
Table A-8	Surface Water General Chemistry Data
Table A-9	Sediment VOC Data
Table A-10	Sediment SVOC Data
Table A-11	Sediment Pesticide Data
Table A-12	Sediment Metals Data
Table A-13	Sediment General Chemistry Data

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	01SOIL		02SOIL		03SOIL		04SOIL		05SOIL		06SOIL		A-B1		A-B2		A-S1		A-S2	
			Field Sample ID	C110617-01 SOIL-0-1		C110617-02 SOIL-0-1		C110617-03 SOIL-0-1		C110617-04 SOIL-0-1		C110617-05 SOIL-0-1		C110617-06 SOIL-0-1		C022707-AB1		C022707-AB2		C022707-AS1		C022707-AS2	
			Sample Start Depth	0		0		0		0		0		0		3		3		2		2	
			Sample End Depth	1		1		1		1		1		1		3		3		3		3	
			Sample Date	11/6/2017		11/6/2017		11/6/2017		11/6/2017		11/6/2017		11/6/2017		2/27/2007		2/27/2007		2/27/2007		2/27/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.009	J	0.0031	U	0.0018	U	0.0029	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0015	J	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.023	U	0.021	U	0.024	U	0.025	U	0.035	U	0.024	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.23	U	0.21	U	0.24	U	0.25	U	0.35	U	0.24	U	0.13	U	0.31	U	0.18	U	0.29	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.00062	J	0.0031	U	0.0018	U	0.0029	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.023	U	0.021	U	0.024	U	0.025	U	0.035	U	0.024	U	0.011	U	0.025	U	0.015	U	0.023	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.023	U	0.021	U	0.024	U	0.025	U	0.035	U	0.024	U	0.011	U	0.025	U	0.015	U	0.023	U
VOCs	Acetone	67-64-1	mg/kg	0.0064	J	0.21	U	0.0053	J	0.0075	J	0.35	U	0.0093	J	0.13	UJ	0.31	UJ	0.18	UJ	0.29	UJ
VOCs	Benzene	71-43-2	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Bromoform	75-25-2	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Bromomethane	74-83-9	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0027	U	0.0063	U	0.0036	U	0.0059	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0055	J	0.0031	U	0.0018	U	0.0029	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Chloroethane	75-00-3	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0027	U	0.0063	U	0.0036	U	0.0059	U
VOCs	Chloroform	67-66-3	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Chloromethane	74-87-3	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0027	U	0.0063	U	0.0036	U	0.0059	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0045	U,*	0.0042	U,*	0.0048	U,*	0.0051	U,*	0.0069	U,*	0.0048	U,*	0.0027	U	0.0063	U	0.0036	U	0.0059	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0017	J	0.0031	U	0.0018	U	0.0029	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	m&p-Xylenes	NA	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0049	J	0.0031	U	0.0018	U	0.0029	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.023	U,*	0.021	U,*	0.024	U,*	0.025	U,*	0.035	U,*	0.024	U,*	0.011	U	0.025	U	0.015	U	0.023	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0087	J	0.0063	U	0.0036	U	0.0059	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Naphthalene	91-20-3	mg/kg	0.023	U	0.021	U	0.024	U	0.025	U	0.035	U	0.024	U	0.013	U	0.031	U	0.018	U	0.029	U
VOCs	o-Xylene	95-47-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0027	J	0.0031	U	0.0018	U	0.0029	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Styrene	100-42-5	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.006	J	0.0031	U	0.0018	U	0.0029	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.045	U,*	0.042	U,*	0.048	U,*	0.051	U,*	0.069	U,*	0.048	U,*	0.011	U	0.025	U	0.015	U	0.023	U
VOCs	Toluene	108-88-3	mg/kg	0.0045	U	0.0004	J	0.0048	U	0.0004	J	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0036	J	0.0048	U	0.057	J	0.0048		0.0018	U	0.0029	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0013	U	0.0031	U	0.0018	U	0.0029	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0045	U	0.0042	U	0.0048	U	0.0051	U	0.0069	U	0.0048	U	0.0027	U	0.0063	U	0.0036	U	0.0059	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	01SOIL		02SOIL		03SOIL		04SOIL		05SOIL		06SOIL		A-B1		A-B2		A-S1		A-S2	
			Field Sample ID	C110617-01 SOIL-0-1		C110617-02 SOIL-0-1		C110617-03 SOIL-0-1		C110617-04 SOIL-0-1		C110617-05 SOIL-0-1		C110617-06 SOIL-0-1		C022707-AB1		C022707-AB2		C022707-AS1		C022707-AS2	
			Sample Start Depth	0		0		0		0		0		0		3		3		2		2	
			Sample End Depth	1		1		1		1		1		1		3		3		3		3	
			Sample Date	11/6/2017		11/6/2017		11/6/2017		11/6/2017		11/6/2017		11/6/2017		2/27/2007		2/27/2007		2/27/2007		2/27/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Acenaphthene	83-32-9	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Acenaphthylene	208-96-8	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Anthracene	120-12-7	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	C11-C22 Aromatics	NA	mg/kg													58		12		3.7	U	4	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg													58		12		3.7	U	4	U
EPH	C19-C36 Aliphatics	NA	mg/kg													30		9.1		3.7	U	4	U
EPH	C9-C18 Aliphatics	NA	mg/kg													52		3.7	U	3.7	U	4	U
EPH	Chrysene	218-01-9	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Fluoranthene	206-44-0	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Fluorene	86-73-7	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Naphthalene	91-20-3	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Phenanthrene	85-01-8	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Pyrene	129-00-0	mg/kg													0.4	U	0.37	U	0.37	U	0.4	U
EPH	Total EPH	NA	mg/kg													140		21		3.7	U	4	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	01SOIL		02SOIL		03SOIL		04SOIL		05SOIL		06SOIL		A-B1		A-B2		A-S1		A-S2	
			Field Sample ID	C110617-01 SOIL-0-1		C110617-02 SOIL-0-1		C110617-03 SOIL-0-1		C110617-04 SOIL-0-1		C110617-05 SOIL-0-1		C110617-06 SOIL-0-1		C022707-AB1		C022707-AB2		C022707-AS1		C022707-AS2	
			Sample Start Depth	0		0		0		0		0		0		3		3		2		2	
			Sample End Depth	1		1		1		1		1		1		3		3		3		3	
			Sample Date	11/6/2017		11/6/2017		11/6/2017		11/6/2017		11/6/2017		11/6/2017		2/27/2007		2/27/2007		2/27/2007		2/27/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg													12,000		35,000		15,000		51,000	
Metals	Antimony	7440-36-0	mg/kg													9.1	J	6.8	J	3.8	J	4.8	J
Metals	Arsenic	7440-38-2	mg/kg													46		48		32		8.2	
Metals	Barium	7440-39-3	mg/kg													130		120		63		150	
Metals	Beryllium	7440-41-7	mg/kg													1.3	U	1.4	U	1.2	U	1.4	U
Metals	Cadmium	7440-43-9	mg/kg													0.67	J	0.95	J	0.74	J	1.1	J
Metals	Calcium	7440-70-2	mg/kg													2,900	B	7,200	B	2,000	B	7,300	B
Metals	Chromium	7440-47-3	mg/kg	60	B	74	B	83	B	56	B	63	B	66	B	750	B	560	B	230	B	250	B
Metals	Cobalt	7440-48-4	mg/kg													7.1		23		9.8		29	
Metals	Copper	7440-50-8	mg/kg													990	B	910	B	310	B	360	B
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	2.9		0.6		0.4	U	0.4	U	0.2	J	2.5		140		0.61		0.49		0.53	
Metals	Iron	7439-89-6	mg/kg													29,000	B	59,000	B	27,000	B	62,000	B
Metals	Lead	7439-92-1	mg/kg													1,800	J	350	J	120	J	7.8	J
Metals	Magnesium	7439-95-4	mg/kg													8,100		20,000		8,600		26,000	
Metals	Manganese	7439-96-5	mg/kg													160		450		240		600	
Metals	Mercury	7439-97-6	mg/kg													0.15		0.1		0.035	J	0.039	J
Metals	Nickel	7440-02-0	mg/kg													38	B	110	B	48	B	110	B
Metals	Potassium	7440-09-7	mg/kg													4,600	J	11,000	J	3,500	J	20,000	J
Metals	Selenium	7782-49-2	mg/kg													3.3	U	3.5	U	2.9	U	3.5	U
Metals	Silver	7440-22-4	mg/kg													18		11		3.7		2.8	J
Metals	Sodium	7440-23-5	mg/kg													160	U	400	J	34	U	1100	B
Metals	Thallium	7440-28-0	mg/kg													6.6	U	7	U	5.9	U	6.9	U
Metals	Vanadium	7440-62-2	mg/kg													33		74		33		100	
Metals	Zinc	7440-66-6	mg/kg													57		120		50		110	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg													0.0088	NJ						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg													0.0076	NJ						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg													0.17	NJ						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg													0.09	NJ						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg													0.0086	NJ						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	A-S3		B-01		B-01		B-01		B-01		B-02		B-02		B-02		B-02		B-03	
			Field Sample ID	C022707-AS3		B1(0-1)		B1(11-13)		B1(5-7)		B1(9-11)		B2(0-1)		B2(13-15)		B2(5-7)		B2(7-9)		B3(11-13)	
			Sample Start Depth	2		0		11		5		9		0		13		5		7		11	
			Sample End Depth	3		1		13		7		11		1		15		7		9		13	
			Sample Date	2/27/2007		9/15/2003		9/16/2003		9/16/2003		9/16/2003		9/15/2003		9/16/2003		9/16/2003		9/16/2003		9/16/2003	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.002	U	0.11	U	0.13	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U	0.12	U	0.11	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.002	U	0.11	U	0.13	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U	0.12	U	0.11	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.002	U	0.057	U	0.067	U	0.054	U	0.057	U	0.056	U	0.056	U	0.054	U	0.058	U	0.054	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.2	U	5.7	U	6.7	U	5.4	U	5.7	U	5.6	U	5.6	U	5.4	U	5.8	U	5.4	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.016	U	0.57	U	0.67	U	0.54	U	0.57	U	0.56	U	0.56	U	0.54	U	0.58	U	0.54	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.016	U	0.57	U	0.67	U	0.54	U	0.57	U	0.56	U	0.56	U	0.54	U	0.58	U	0.54	U
VOCs	Acetone	67-64-1	mg/kg	0.2	UJ	1.1	U	1.3	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.2	U	1.1	U
VOCs	Benzene	71-43-2	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Bromoform	75-25-2	mg/kg	0.002	U	0.11	U	0.13	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U	0.12	U	0.11	U
VOCs	Bromomethane	74-83-9	mg/kg	0.0041	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Chloroethane	75-00-3	mg/kg	0.0041	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Chloroform	67-66-3	mg/kg	0.002	U	0.11	U	0.13	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U	0.12	U	0.11	U
VOCs	Chloromethane	74-87-3	mg/kg	0.0041	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.002	U	0.057	U	0.067	U	0.054	U	0.057	U	0.056	U	0.056	U	0.054	U	0.058	U	0.054	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.002	U	0.11	U	0.13	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U	0.12	U	0.11	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0041	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.002	U	0.57	U	0.67	U	0.54	U	0.57	U	0.56	U	0.56	U	0.54	U	0.58	U	0.54	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	m&p-Xylenes	NA	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.016	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0041	U	0.11	U	0.13	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U	0.12	U	0.11	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Naphthalene	91-20-3	mg/kg	0.02	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	o-Xylene	95-47-6	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Styrene	100-42-5	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.016	U	0.57	U	0.67	U	0.54	U	0.57	U	0.56	U	0.56	U	0.54	U	0.58	U	0.54	U
VOCs	Toluene	108-88-3	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.002	U	0.057	U	0.067	U	0.054	U	0.057	U	0.056	U	0.056	U	0.054	U	0.058	U	0.054	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.0022		0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.002	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0041	U	0.29	U	0.34	U	0.27	U	0.29	U	0.28	U	0.28	U	0.27	U	0.29	U	0.27	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg					0.38	U					0.37	U								
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg					0.38	U					0.37	U								
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg					0.38	U					0.37	U								
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg					0.38	U					0.37	U								
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg					0.38	U					0.37	U								
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg					0.38	U					0.37	U								
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg					0.38	U					0.37	U								
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg					0.38	U					0.37	U								
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg					1.9	U					1.9	U								
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg					0.38	U					0.37	U								
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg					0.38	U					0.37	U								
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg					0.38	U					0.37	U								
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg					0.38	U					0.37	U								
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg					0.38	U					0.37	U								
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg					0.38	U					0.37	U								

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	A-S3		B-01		B-01		B-01		B-01		B-02		B-02		B-02		B-02		B-03	
			Field Sample ID	C022707-AS3		B1(0-1)		B1(11-13)		B1(5-7)		B1(9-11)		B2(0-1)		B2(13-15)		B2(5-7)		B2(7-9)		B3(11-13)	
			Sample Start Depth	2		0		11		5		9		0		13		5		7		11	
			Sample End Depth	3		1		13		7		11		1		15		7		9		13	
			Sample Date	2/27/2007		9/15/2003		9/16/2003		9/16/2003		9/16/2003		9/15/2003		9/16/2003		9/16/2003		9/16/2003		9/16/2003	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg					1.9	U					1.9	U								
SVOCs	2-NITROPHENOL	88-75-5	mg/kg					0.38	U					0.37	U								
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg					0.38	U					0.37	U								
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg					0.38	U					0.37	U								
SVOCs	3-NITROANILINE	99-09-2	mg/kg					1.9	U					1.9	U								
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg					1.9	U					1.9	U								
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg					0.38	U					0.37	U								
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg					0.38	U					0.37	U								
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg					0.38	U					0.37	U								
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg					0.38	U					0.37	U								
SVOCs	4-NITROANILINE	100-01-6	mg/kg					1.9	U					1.9	U								
SVOCs	4-NITROPHENOL	100-02-7	mg/kg					1.9	U					1.9	U								
SVOCs	Acenaphthene	83-32-9	mg/kg					0.38	U					0.37	U								
SVOCs	Acenaphthylene	208-96-8	mg/kg					0.38	U					0.37	U								
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg					0.38	U					0.37	U								
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg					0.38	U					0.37	U								
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg					0.38	U					0.37	U								
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg					0.38	U					0.37	U								
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg					0.38	U					0.37	U								
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg					0.38	U					0.37	U								
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg					0.38	U					0.37	U								
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg					0.38	U					0.37	U								
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg					0.38	U					0.37	U								
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg					0.38	U					0.37	U								
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg					0.38	U					0.37	U								
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg					0.38	U					0.37	U								
SVOCs	CARBAZOLE	86-74-8	mg/kg					0.38	U					0.37	U								
SVOCs	Chrysene	218-01-9	mg/kg					0.38	U					0.37	U								
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg					0.38	U					0.37	U								
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg					0.38	U					0.37	U								
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg					0.38	U					0.37	U								
SVOCs	DIBENZOFURAN	132-64-9	mg/kg					0.38	U					0.37	U								
SVOCs	Diethyl phthalate	84-66-2	mg/kg					0.38	U					0.37	U								
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg					0.38	U					0.37	U								
SVOCs	Fluoranthene	206-44-0	mg/kg					0.38	U					0.37	U								
SVOCs	Fluorene	86-73-7	mg/kg					0.38	U					0.37	U								
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg					0.38	U					0.37	U								
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg					0.38	U					0.37	U								
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg					0.38	U					0.37	U								
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg					0.38	U					0.37	U								
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg					0.38	U					0.37	U								
SVOCs	ISOPHORONE	78-59-1	mg/kg					0.38	U					0.37	U								
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg					0.38	U					0.37	U								
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg					0.38	U					0.37	U								
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg					0.38	U					0.37	U								
SVOCs	Naphthalene	91-20-3	mg/kg					0.38	U					0.37	U								
SVOCs	NITROBENZENE	98-95-3	mg/kg					0.38	U					0.37	U								
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg					1.9	U					1.9	U								
SVOCs	Phenanthrene	85-01-8	mg/kg					0.38	U					0.37	U								
SVOCs	PHENOL	108-95-2	mg/kg					0.38	U					0.37	U								
SVOCs	Pyrene	129-00-0	mg/kg					0.38	U					0.37	U								
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.39	U																		
EPH	Acenaphthene	83-32-9	mg/kg	0.39	U																		
EPH	Acenaphthylene	208-96-8	mg/kg	0.39	U																		
EPH	Anthracene	120-12-7	mg/kg	0.39	U																		
EPH	Benzo[a]anthracene	56-55-3	mg/kg	1																			
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.58																			
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.77																			
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.39	U																		
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.64																			
EPH	C11-C22 Aromatics	NA	mg/kg	17																			
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	25																			
EPH	C19-C36 Aliphatics	NA	mg/kg	3.9	U																		
EPH	C9-C18 Aliphatics	NA	mg/kg	3.9	U																		
EPH	Chrysene	218-01-9	mg/kg	1.1																			
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.39	U																		
EPH	Fluoranthene	206-44-0	mg/kg	1.5																			
EPH	Fluorene	86-73-7	mg/kg	0.39	U																		
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.39	U																		
EPH	Naphthalene	91-20-3	mg/kg	0.39	U																		
EPH	Phenanthrene	85-01-8	mg/kg	0.82																			
EPH	Pyrene	129-00-0	mg/kg	1.4																			
EPH	Total EPH	NA	mg/kg	17																			
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	A-S3		B-01		B-01		B-01		B-01		B-02		B-02		B-02		B-02		B-03	
			Field Sample ID	C022707-AS3		B1(0-1)		B1(11-13)		B1(5-7)		B1(9-11)		B2(0-1)		B2(13-15)		B2(5-7)		B2(7-9)		B3(11-13)	
			Sample Start Depth	2		0		11		5		9		0		13		5		7		11	
			Sample End Depth	3		1		13		7		11		1		15		7		9		13	
			Sample Date	2/27/2007		9/15/2003		9/16/2003		9/16/2003		9/16/2003		9/15/2003		9/16/2003		9/16/2003		9/16/2003		9/16/2003	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	18,000										12,800		8,540		10,200				20,000	
Metals	Antimony	7440-36-0	mg/kg	2.3	J									6.8	U	6.79	U	6.8	U			6.89	U
Metals	Arsenic	7440-38-2	mg/kg	27										25.7		19.1		24.1				31	
Metals	Barium	7440-39-3	mg/kg	44										49.8		60.9		43.7				169	
Metals	Beryllium	7440-41-7	mg/kg	1.3	U									0.56	U	0.56	U	0.56	U			0.57	U
Metals	Cadmium	7440-43-9	mg/kg	1	J									0.56	U	0.56	U	0.56	U			0.57	U
Metals	Calcium	7440-70-2	mg/kg	4,100	B									1,250		2,500		1,630				4,370	
Metals	Chromium	7440-47-3	mg/kg	73	B	36		64.1		65.4				74.3		44.8		46.3				650	
Metals	Cobalt	7440-48-4	mg/kg	14										7.88		7.31		8.05				14.1	
Metals	Copper	7440-50-8	mg/kg	210	B									39		53.5		43.1				431	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.42		21.2		20.6		7.23				5.61		4.52	U	5.57				55.5	
Metals	Iron	7439-89-6	mg/kg	31,000	B									16,000		13,700		14,300				28,000	
Metals	Lead	7439-92-1	mg/kg	51	J									47.5		5.95		6.92				36.6	
Metals	Magnesium	7439-95-4	mg/kg	11,000										5,990		5,230		5,400				13,100	
Metals	Manganese	7439-96-5	mg/kg	730										281		283		282				397	
Metals	Mercury	7439-97-6	mg/kg	0.2										0.17		0.05	U	0.05	U			0.07	
Metals	Nickel	7440-02-0	mg/kg	52	B									26.5		24.9		28.5				55	
Metals	Potassium	7440-09-7	mg/kg	2,800	J									1,470		2,220		1,680				5,290	
Metals	Selenium	7782-49-2	mg/kg	3.4	U									1.13	U	1.13	U	1.13	U			1.15	U
Metals	Silver	7440-22-4	mg/kg	3.4	U									1.13	U	1.13	U	1.13	U			1.15	U
Metals	Sodium	7440-23-5	mg/kg	34	U									193		224		189				687	
Metals	Thallium	7440-28-0	mg/kg	6.7	U									5.67	U	5.66	U	5.67	U			5.74	U
Metals	Vanadium	7440-62-2	mg/kg	35										27.2		20		21.1				53.4	
Metals	Zinc	7440-66-6	mg/kg	52										57.3		31.4		32.4				61.8	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg					551	U							479	U						
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-03		B-03		B-03		B-04		B-04		B-05		B-05		B-05		B-09		B-10	
			Field Sample ID	B3(13-15)		B3(5-7)		B3(9-11)		B4(10-11)		B4(9-10)		B5(1-2)		B5(3-4)		B5(4)		B9(12-14)		B10(5-7)	
			Sample Start Depth	13		5		9		10		9		1		3		4		12		5	
			Sample End Depth	15		7		11		11		10		2		4		4		14		7	
			Sample Date	9/16/2003		9/16/2003		9/16/2003		9/16/2003		9/16/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U	0.1	U	0.1	U	0.11	U	0.12	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U	0.1	U	0.1	U	0.11	U	0.12	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.059	U	0.058	U	0.061	U	0.061	U	0.056	U	0.051	U	0.05	U	0.052	U	0.056	U	0.06	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	5.9	U	5.8	U	6.1	U	6.1	U	5.6	U	5.1	U	5	U	5.2	U	5.6	U	6	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.59	U	0.58	U	0.61	U	0.61	U	0.56	U	0.51	U	0.5	U	0.52	U	0.56	U	0.6	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.59	U	0.58	U	0.61	U	0.61	U	0.56	U	0.51	U	0.5	U	0.52	U	0.56	U	0.6	U
VOCs	Acetone	67-64-1	mg/kg	1.2	U	1.2	U	1.2	U	1.2	U	1.1	U	1	U	1	U	1	U	1.1	U	1.2	U
VOCs	Benzene	71-43-2	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Bromoform	75-25-2	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U	0.1	U	0.1	U	0.11	U	0.12	U
VOCs	Bromomethane	74-83-9	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Chloroethane	75-00-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Chloroform	67-66-3	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U	0.1	U	0.1	U	0.11	U	0.12	U
VOCs	Chloromethane	74-87-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.059	U	0.058	U	0.061	U	0.061	U	0.056	U	0.051	U	0.05	U	0.052	U	0.056	U	0.06	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U	0.1	U	0.1	U	0.11	U	0.12	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.59	U	0.58	U	0.61	U	0.61	U	0.56	U	0.51	U	0.5	U	0.52	U	0.56	U	0.6	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	m&p-Xylenes	NA	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U	0.1	U	0.1	U	0.11	U	0.12	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Naphthalene	91-20-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	o-Xylene	95-47-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Styrene	100-42-5	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.59	U	0.58	U	0.61	U	0.61	U	0.56	U	0.51	U	0.5	U	0.52	U	0.56	U	0.6	U
VOCs	Toluene	108-88-3	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.059	U	0.058	U	0.061	U	0.061	U	0.056	U	0.051	U	0.05	U	0.052	U	0.056	U	0.06	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.29	U	0.29	U	0.3	U	0.3	U	0.28	U	0.25	U	0.25	U	0.26	U	0.28	U	0.3	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.38	U													0.36	U				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.38	U													0.36	U				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.38	U													0.36	U				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.38	U													0.36	U				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg	0.38	U													0.36	U				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg	0.38	U													0.36	U				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg	0.38	U													0.36	U				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg	0.38	U													0.36	U				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg	2	U													1.9	U				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg	0.38	U													0.36	U				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg	0.38	U													0.36	U				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg	0.38	U													0.36	U				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg	0.38	U													0.36	U				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg	0.38	U													0.36	U				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg	0.38	U													0.36	U				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-03		B-03		B-03		B-04		B-04		B-05		B-05		B-05		B-09		B-10	
			Field Sample ID	B3(13-15)		B3(5-7)		B3(9-11)		B4(10-11)		B4(9-10)		B5(1-2)		B5(3-4)		B5(4)		B9(12-14)		B10(5-7)	
			Sample Start Depth	13		5		9		10		9		1		3		4		12		5	
			Sample End Depth	15		7		11		11		10		2		4		4		14		7	
			Sample Date	9/16/2003		9/16/2003		9/16/2003		9/16/2003		9/16/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg	2	U													1.9	U				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg	0.38	U													0.36	U				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg	0.38	U													0.36	U				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg	0.38	U													0.36	U				
SVOCs	3-NITROANILINE	99-09-2	mg/kg	2	U													1.9	U				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg	2	U													1.9	U				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg	0.38	U													0.36	U				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg	0.38	U													0.36	U				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg	0.38	U													0.36	U				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg	0.38	U													0.36	U				
SVOCs	4-NITROANILINE	100-01-6	mg/kg	2	U													1.9	U				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg	2	U													1.9	U				
SVOCs	Acenaphthene	83-32-9	mg/kg	0.38	U													0.36	U				
SVOCs	Acenaphthylene	208-96-8	mg/kg	0.38	U													0.36	U				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg	0.38	U													0.36	U				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg	0.38	U													0.36	U				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg	0.38	U													0.36	U				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg	0.38	U													0.36	U				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.38	U													0.36	U				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg	0.38	U													0.36	U				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg	0.38	U													0.36	U				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg	0.38	U													0.36	U				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg	0.38	U													0.36	U				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg	0.38	U													0.36	U				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg	0.38	U													0.36	U				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg	0.38	U													0.36	U				
SVOCs	CARBAZOLE	86-74-8	mg/kg	0.38	U													0.36	U				
SVOCs	Chrysene	218-01-9	mg/kg	0.38	U													0.36	U				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg	0.38	U													0.36	U				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg	0.38	U													0.36	U				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.38	U													0.36	U				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg	0.38	U													0.36	U				
SVOCs	Diethyl phthalate	84-66-2	mg/kg	0.38	U													0.36	U				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg	0.38	U													0.36	U				
SVOCs	Fluoranthene	206-44-0	mg/kg	0.38	U													0.36	U				
SVOCs	Fluorene	86-73-7	mg/kg	0.38	U													0.36	U				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg	0.38	U													0.36	U				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.38	U													0.36	U				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg	0.38	U													0.36	U				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg	0.38	U													0.36	U				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.38	U													0.36	U				
SVOCs	ISOPHORONE	78-59-1	mg/kg	0.38	U													0.36	U				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg	0.38	U													0.36	U				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg	0.38	U													0.36	U				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg	0.38	U													0.36	U				
SVOCs	Naphthalene	91-20-3	mg/kg	0.38	U													0.36	U				
SVOCs	NITROBENZENE	98-95-3	mg/kg	0.38	U													0.36	U				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg	2	U													1.9	U				
SVOCs	Phenanthrene	85-01-8	mg/kg	0.38	U													0.36	U				
SVOCs	PHENOL	108-95-2	mg/kg	0.38	U													0.36	U				
SVOCs	Pyrene	129-00-0	mg/kg	0.38	U													0.36	U				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-03		B-03		B-03		B-04		B-04		B-05		B-05		B-05		B-09		B-10	
			Field Sample ID	B3(13-15)		B3(5-7)		B3(9-11)		B4(10-11)		B4(9-10)		B5(1-2)		B5(3-4)		B5(4)		B9(12-14)		B10(5-7)	
			Sample Start Depth	13		5		9		10		9		1		3		4		12		5	
			Sample End Depth	15		7		11		11		10		2		4		4		14		7	
			Sample Date	9/16/2003		9/16/2003		9/16/2003		9/16/2003		9/16/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	15,000		22,300																	
Metals	Antimony	7440-36-0	mg/kg	6.94	U	6.87	U																
Metals	Arsenic	7440-38-2	mg/kg	34.6		63																	
Metals	Barium	7440-39-3	mg/kg	137		135																	
Metals	Beryllium	7440-41-7	mg/kg	0.57	U	0.57	U																
Metals	Cadmium	7440-43-9	mg/kg	0.57	U	0.57	U																
Metals	Calcium	7440-70-2	mg/kg	4,550		2,130																	
Metals	Chromium	7440-47-3	mg/kg	630		575				882				170		260		974		515			
Metals	Cobalt	7440-48-4	mg/kg	11.9		17																	
Metals	Copper	7440-50-8	mg/kg	390		749																	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	112		36.5				396				4.28	U	21.3		38.4		38.9			
Metals	Iron	7439-89-6	mg/kg	19,700		31,500																	
Metals	Lead	7439-92-1	mg/kg	5.79	U	11.7																	
Metals	Magnesium	7439-95-4	mg/kg	9,850		16,000																	
Metals	Manganese	7439-96-5	mg/kg	399		320																	
Metals	Mercury	7439-97-6	mg/kg	0.05	U	0.05	U																
Metals	Nickel	7440-02-0	mg/kg	38.1		72.5																	
Metals	Potassium	7440-09-7	mg/kg	5,140		6,280																	
Metals	Selenium	7782-49-2	mg/kg	1.16	U	1.15	U																
Metals	Silver	7440-22-4	mg/kg	1.16	U	1.15	U																
Metals	Sodium	7440-23-5	mg/kg	542		199																	
Metals	Thallium	7440-28-0	mg/kg	5.79	U	5.73	U																
Metals	Vanadium	7440-62-2	mg/kg	39.8		65.8																	
Metals	Zinc	7440-66-6	mg/kg	36.7		68.2																	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg	668						514								1,700		510	U		
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-10		B-10		B-100		B-102		B-11		B-11		B-11		B-11		B-12		B-12	
			Field Sample ID	B10(7-9)		B10(9-11)		C052405-B100S2		C052405-B102S2A		B11(0-2)		B11(12-13)		B11(5-7)		B11(7-9)		B12(11-13)		B12(5-6)	
			Sample Start Depth	7		9		4		6		0		12		5		7		11		5	
			Sample End Depth	9		11		5.5		7		2		13		7		9		13		6	
			Sample Date	9/17/2003		9/17/2003		5/24/2005		5/24/2005		9/15/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.12	U	0.1	U					0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.12	U	0.1	U					0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.058	U	0.052	U					0.059	U	0.058	U	0.059	U	0.058	U	0.054	U	0.051	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	5.8	U	5.2	U					5.9	U	5.8	U	5.9	U	5.8	U	5.4	U	5.1	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.58	U	0.52	U					0.59	U	0.58	U	0.59	U	0.58	U	0.54	U	0.51	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.58	U	0.52	U					0.59	U	0.58	U	0.59	U	0.58	U	0.54	U	0.51	U
VOCs	Acetone	67-64-1	mg/kg	1.2	U	1	U					1.2	U	1.2	U	1.2	U	1.2	U	1.1	U	1	U
VOCs	Benzene	71-43-2	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Bromoform	75-25-2	mg/kg	0.12	U	0.1	U					0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U
VOCs	Bromomethane	74-83-9	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Chloroethane	75-00-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Chloroform	67-66-3	mg/kg	0.12	U	0.1	U					0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U
VOCs	Chloromethane	74-87-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.058	U	0.052	U					0.059	U	0.058	U	0.059	U	0.058	U	0.054	U	0.051	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.12	U	0.1	U					0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.58	U	0.52	U					0.59	U	0.58	U	0.59	U	0.58	U	0.54	U	0.51	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	m&p-Xylenes	NA	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.12	U	0.1	U					0.12	U	0.12	U	0.12	U	0.12	U	0.11	U	0.1	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Naphthalene	91-20-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	o-Xylene	95-47-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Styrene	100-42-5	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.58	U	0.52	U					0.59	U	0.58	U	0.59	U	0.58	U	0.54	U	0.51	U
VOCs	Toluene	108-88-3	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.058	U	0.052	U					0.059	U	0.058	U	0.059	U	0.058	U	0.054	U	0.051	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.29	U	0.26	U					0.29	U	0.29	U	0.3	U	0.29	U	0.27	U	0.25	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-10		B-10		B-100		B-102		B-11		B-11		B-11		B-11		B-12		B-12	
				Field Sample ID	B10(7-9)		B10(9-11)		C052405-B100S2		C052405-B102S2A		B11(0-2)		B11(12-13)		B11(5-7)		B11(7-9)		B12(11-13)		B12(5-6)	
				Sample Start Depth	7		9		4		6		0		12		5		7		11		5	
				Sample End Depth	9		11		5.5		7		2		13		7		9		13		6	
				Sample Date	9/17/2003		9/17/2003		5/24/2005		5/24/2005		9/15/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																					
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																					
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																					
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																					
SVOCs	3-NITROANILINE	99-09-2	mg/kg																					
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																					
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																					
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																					
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																					
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																					
SVOCs	4-NITROANILINE	100-01-6	mg/kg																					
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																					
SVOCs	Acenaphthene	83-32-9	mg/kg																					
SVOCs	Acenaphthylene	208-96-8	mg/kg																					
SVOCs	Acetophenone	98-86-2	mg/kg																					
SVOCs	Aniline	62-53-3	mg/kg																					
SVOCs	Anthracene	120-12-7	mg/kg																					
SVOCs	Azobenzene	103-33-3	mg/kg																					
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																					
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																					
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																					
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																					
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																					
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																					
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																					
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																					
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																					
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																					
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																					
SVOCs	CARBAZOLE	86-74-8	mg/kg																					
SVOCs	Chrysene	218-01-9	mg/kg																					
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																					
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																					
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																					
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																					
SVOCs	Diethyl phthalate	84-66-2	mg/kg																					
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																					
SVOCs	Fluoranthene	206-44-0	mg/kg																					
SVOCs	Fluorene	86-73-7	mg/kg																					
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																					
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																					
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																					
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																					
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																					
SVOCs	ISOPHORONE	78-59-1	mg/kg																					
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																					
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																					
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																					
SVOCs	Naphthalene	91-20-3	mg/kg																					
SVOCs	NITROBENZENE	98-95-3	mg/kg																					
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																					
SVOCs	Phenanthrene	85-01-8	mg/kg																					
SVOCs	PHENOL	108-95-2	mg/kg																					
SVOCs	Pyrene	129-00-0	mg/kg																					
PCBs	Aroclor 1016	12674-11-2	mg/kg																					
PCBs	Aroclor 1221	11104-28-2	mg/kg																					
PCBs	Aroclor 1232	11141-16-5	mg/kg																					
PCBs	Aroclor 1242	53469-21-9	mg/kg																					
PCBs	Aroclor 1248	12672-29-6	mg/kg																					
PCBs	Aroclor 1254	11097-69-1	mg/kg																					
PCBs	Aroclor 1260	11096-82-5	mg/kg																					
PCBs	PCB-1262	37324-23-5	mg/kg																					
PCBs	PCB-1268	11100-14-4	mg/kg																					
EPH	2-Methylnaphthalene	91-57-6	mg/kg																					
EPH	Acenaphthene	83-32-9	mg/kg																					
EPH	Acenaphthylene	208-96-8	mg/kg																					
EPH	Anthracene	120-12-7	mg/kg																					
EPH	Benzo[a]anthracene	56-55-3	mg/kg																					
EPH	Benzo[a]pyrene	50-32-8	mg/kg																					
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																					
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																					
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																					
EPH	C11-C22 Aromatics	NA	mg/kg																					
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																					
EPH	C19-C36 Aliphatics	NA	mg/kg																					
EPH	C9-C18 Aliphatics	NA	mg/kg																					
EPH	Chrysene	218-01-9	mg/kg																					
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																					
EPH	Fluoranthene	206-44-0	mg/kg																					
EPH	Fluorene	86-73-7	mg/kg																					
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																					
EPH	Naphthalene	91-20-3	mg/kg																					
EPH	Phenanthrene	85-01-8	mg/kg																					
EPH	Pyrene	129-00-0	mg/kg																					
EPH	Total EPH	NA	mg/kg																					
VPH	Benzene	71-43-2	mg/kg																					
VPH	C5-C8 Aliphatics	NA	mg/kg																					
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																					
VPH	C9-C10 Aromatics	NA	mg/kg																					

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-10		B-10		B-100		B-102		B-11		B-11		B-11		B-11		B-12		B-12	
			Field Sample ID	B10(7-9)		B10(9-11)		C052405-B100S2		C052405-B102S2A		B11(0-2)		B11(12-13)		B11(5-7)		B11(7-9)		B12(11-13)		B12(5-6)	
			Sample Start Depth	7		9		4		6		0		12		5		7		11		5	
			Sample End Depth	9		11		5.5		7		2		13		7		9		13		6	
			Sample Date	9/17/2003		9/17/2003		5/24/2005		5/24/2005		9/15/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003		9/17/2003	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg									11,800		20,600		12,000				13,100		12,200	
Metals	Antimony	7440-36-0	mg/kg					1.5	B	2.2	B	6.94	U	6.72	U	6.9	U			6.76	U	6.93	U
Metals	Arsenic	7440-38-2	mg/kg					28		130		20.7		31.5		33.6				27.8		32.8	
Metals	Barium	7440-39-3	mg/kg									42.4		138		48.5				64		55.1	
Metals	Beryllium	7440-41-7	mg/kg					0.8	U	1.7	U	0.57	U	0.6		0.57	U			0.56	U	0.57	U
Metals	Cadmium	7440-43-9	mg/kg									1.67		0.56	U	0.57	U			0.56	U	0.57	U
Metals	Calcium	7440-70-2	mg/kg									1,670		2,020		1,980				2,420		1,890	
Metals	Chromium	7440-47-3	mg/kg	1030		187		1600		4200		44.3		615		116				548		169	
Metals	Cobalt	7440-48-4	mg/kg									6.39		19		10.7				10.9		9.62	
Metals	Copper	7440-50-8	mg/kg					1300		2500		48.8		411		344				350		87.1	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	203		34.2		260		0.22	U	4.63	U	78.2		5.22				78.8		8.73	
Metals	Iron	7439-89-6	mg/kg									12,200		33,500		17,500				21,700		16,500	
Metals	Lead	7439-92-1	mg/kg					470		180		31.1		10.7		9.89				11.4		12.7	
Metals	Magnesium	7439-95-4	mg/kg									3,810		13,200		7,400				8,250		7,170	
Metals	Manganese	7439-96-5	mg/kg									252		492		361				384		312	
Metals	Mercury	7439-97-6	mg/kg									0.08		0.05	U	0.05	U			0.05	U	0.05	U
Metals	Nickel	7440-02-0	mg/kg									21.6		73.8		38.5				43.6		36.7	
Metals	Potassium	7440-09-7	mg/kg									721		6,150		1,700				2,380		1,780	
Metals	Selenium	7782-49-2	mg/kg									1.16	U	1.12	U	1.15	U			1.13	U	1.15	U
Metals	Silver	7440-22-4	mg/kg									1.16	U	1.12	U	1.15	U			1.13	U	1.15	U
Metals	Sodium	7440-23-5	mg/kg									116	U	194		163				204		253	
Metals	Thallium	7440-28-0	mg/kg									5.79	U	5.6	U	5.75	U			5.63	U	5.77	U
Metals	Vanadium	7440-62-2	mg/kg									22.1		50.8		26.2				26.9		26.1	
Metals	Zinc	7440-66-6	mg/kg									53		67.1		40.7				43.9		38.1	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg			861								685	U					911			
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-12		B-12		B-13		B-14		B-14		B-15		B-15		B-15		B-16		B-16	
			Field Sample ID	B12(6-7)		B12(7-9)		C062104-B13-13-14		C062104-B14-12-13		C062104-B14-14-15		C062104-B15-0-2		C062104-B15-12-13		C062104-B15-6-8		C062104-B16-10-12		C062104-B16-4-6	
			Sample Start Depth	6		7		13		12		14		0		12		6		10		4	
			Sample End Depth	7		9		14		13		15		2		13		8		12		6	
			Sample Date	9/17/2003		9/17/2003		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.12	U	0.12	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.12	U	0.12	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.06	U	0.06	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	6	U	6	U	0.23	U	34	U	0.2	U	0.24	U	0.23	U	0.25	U	0.24	U	0.24	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.6	U	0.6	U	0.018	U	2.7	U	0.016	U	0.019	U	0.018	U	0.02	U	0.019	U	0.02	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.6	U	0.6	U	0.018	U	2.7	U	0.016	U	0.019	U	0.018	U	0.02	U	0.019	U	0.02	U
VOCs	Acetone	67-64-1	mg/kg	1.2	U	1.2	U	0.045	U	6.8	U	0.039	U	0.048	U	0.046	U	0.05	U	0.047	U	0.049	U
VOCs	Benzene	71-43-2	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Bromoform	75-25-2	mg/kg	0.12	U	0.12	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Bromomethane	74-83-9	mg/kg	0.3	U	0.3	U	0.0045	U	0.68	U	0.0039	U	0.0048	U	0.0046	U	0.005	U	0.0047	U	0.0049	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.3	U	0.3	U	0.045	U	6.8	U	0.039	U	0.048	U	0.046	U	0.05	U	0.047	U	0.049	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Chloroethane	75-00-3	mg/kg	0.3	U	0.3	U	0.0045	U	0.68	U	0.0039	U	0.0048	U	0.0046	U	0.005	U	0.0047	U	0.0049	U
VOCs	Chloroform	67-66-3	mg/kg	0.12	U	0.12	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Chloromethane	74-87-3	mg/kg	0.3	U	0.3	U	0.0045	U	0.68	U	0.0039	U	0.0048	U	0.0046	U	0.005	U	0.0047	U	0.0049	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.06	U	0.06	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.12	U	0.12	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.6	U	0.6	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.3	U	0.3	U	0.0023	U	3.1		0.026		0.0024	U	0.0063		0.0025	U	0.0024	U	0.0024	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	m&p-Xylenes	NA	mg/kg	0.3	U	0.3	U	0.0023	U	17		0.14		0.0033		0.036		0.0038		0.0024	U	0.0024	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.3	U	0.3	U	0.018	U	2.7	U	0.016	U	0.019	U	0.018	U	0.02	U	0.019	U	0.02	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.3	U	0.3	U	0.0045	U	0.68	U	0.0039	U	0.0048	U	0.0046	U	0.005	U	0.0047	U	0.0049	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.12	U	0.12	U	0.0045	U	0.68	U	0.0039	U	0.0048	U	0.0046	U	0.005	U	0.0047	U	0.0049	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Naphthalene	91-20-3	mg/kg	0.3	U	0.3	U	0.023	U	3.4	U	0.02	U	0.024	U	0.023	U	0.025	U	0.024	U	0.024	U
VOCs	o-Xylene	95-47-6	mg/kg	0.3	U	0.3	U	0.0023	U	3.7		0.038		0.0024	U	0.0097		0.0025	U	0.0024	U	0.0024	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Styrene	100-42-5	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.6	U	0.6	U	0.0045	U	0.68	U	0.0039	U	0.0048	U	0.0046	U	0.005	U	0.0047	U	0.0049	U
VOCs	Toluene	108-88-3	mg/kg	0.3	U	0.3	U	0.0023	U	1.2		0.014		0.0024	U	0.0027		0.0025	U	0.0024	U	0.0024	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.06	U	0.06	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.0027		0.0042		0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.3	U	0.3	U	0.0023	U	0.34	U	0.002	U	0.0024	U	0.0023	U	0.0025	U	0.0024	U	0.0024	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.3	U	0.3	U	0.0045	U	0.68	U	0.0039	U	0.0048	U	0.0046	U	0.005	U	0.0047	U	0.0049	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-12		B-12		B-13		B-14		B-14		B-15		B-15		B-15		B-16		B-16	
				Field Sample ID	B12(6-7)		B12(7-9)		C062104-B13-13-14		C062104-B14-12-13		C062104-B14-14-15		C062104-B15-0-2		C062104-B15-12-13		C062104-B15-6-8		C062104-B16-10-12		C062104-B16-4-6	
				Sample Start Depth	6		7		13		12		14		0		12		6		10		4	
				Sample End Depth	7		9		14		13		15		2		13		8		12		6	
				Sample Date	9/17/2003		9/17/2003		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg					0.77	U	0.76	U			7.4	U			0.74	U			0.67	U
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg					0.77	U	0.76	U			7.4	U			0.74	U			0.67	U
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg					1.9	U	1.9	U			18	U			1.8	U			1.7	U
SVOCs	Acenaphthene	83-32-9	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Acenaphthylene	208-96-8	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Acetophenone	98-86-2	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Aniline	62-53-3	mg/kg					1.9	U	1.9	U			18	U			1.8	U			1.7	U
SVOCs	Anthracene	120-12-7	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Azobenzene	103-33-3	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg					0.38	U	0.23	J			3.7	U			0.37	U			0.23	J
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	DIBENZOFURAN	132-64-9	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Diethyl phthalate	84-66-2	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Fluoranthene	206-44-0	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	Fluorene	86-73-7	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg					0.19	U	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	ISOPHORONE	78-59-1	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg					0.22		0.19	U			1.8	U			0.18	U			0.24	
SVOCs	NITROBENZENE	98-95-3	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg					1.9	U	1.9	U			18	U			1.8	U			1.7	U
SVOCs	Phenanthrene	85-01-8	mg/kg					0.19	J	0.19	U			1.8	U			0.18	U			0.17	U
SVOCs	PHENOL	108-95-2	mg/kg					0.38	U	0.38	U			3.7	U			0.37	U			0.34	U
SVOCs	Pyrene	129-00-0	mg/kg					0.15	J	0.19	U			1.8	U			0.18	U			0.17	U
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg					3.8	U	3.9	U							3.6	U			3.4	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg											110				3.6	U				
EPH	C19-C36 Aliphatics	NA	mg/kg					3.8	U	3.9	U			11				3.6	U			3.4	U
EPH	C9-C18 Aliphatics	NA	mg/kg					3.8	U	3.9	U			3.7	U			3.6	U			3.4	U
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg					3.8	U	3.9	U			120									
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-12		B-12		B-13		B-14		B-14		B-15		B-15		B-15		B-16		B-16	
			Field Sample ID	B12(6-7)		B12(7-9)		C062104-B13-13-14		C062104-B14-12-13		C062104-B14-14-15		C062104-B15-0-2		C062104-B15-12-13		C062104-B15-6-8		C062104-B16-10-12		C062104-B16-4-6	
			Sample Start Depth	6		7		13		12		14		0		12		6		10		4	
			Sample End Depth	7		9		14		13		15		2		13		8		12		6	
			Sample Date	9/17/2003		9/17/2003		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg			8,140		16,000		7,600				10,000				17,000				5,800	
Metals	Antimony	7440-36-0	mg/kg			6.75	U	2.2	U	1.2	U			1.2	U	1.3	U	2.1	U	1.3	U	1.1	U
Metals	Arsenic	7440-38-2	mg/kg			12.8		12		13				30		46		23		130		5.8	
Metals	Barium	7440-39-3	mg/kg			40.7		43		35				36				78				25	
Metals	Beryllium	7440-41-7	mg/kg			0.56	U	0.33		0.17				0.23		0.13	U	0.45		0.17		0.12	
Metals	Cadmium	7440-43-9	mg/kg			0.56	U	0.22	U	0.12	U			0.12	U			0.25				0.11	U
Metals	Calcium	7440-70-2	mg/kg			1,650		2,500		1,700				1,200				1,500				1,200	
Metals	Chromium	7440-47-3	mg/kg			551		410		44				75		200		190		750		24	
Metals	Cobalt	7440-48-4	mg/kg			5.62	U	17		6.5				7.9				11				3.7	
Metals	Copper	7440-50-8	mg/kg			238		21		13				30		130		68		150		16	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg			38.6		9.3		0.27	U			1.7	U			0.62				0.16	U
Metals	Iron	7439-89-6	mg/kg			12,900		31,000		11,000				15,000				18,000				8,600	
Metals	Lead	7439-92-1	mg/kg			5.62	U	8.6		4.3				9.4		8.7		8		12		4.4	
Metals	Magnesium	7439-95-4	mg/kg			4,650		13,000		4,600				5,800				7,600				3,600	
Metals	Manganese	7439-96-5	mg/kg			108		230		120				220				340				79	
Metals	Mercury	7439-97-6	mg/kg			0.05	U	0.12	U	0.089	U			0.099	U			0.09	U			0.097	U
Metals	Nickel	7440-02-0	mg/kg			23.1		59		26				26				38				16	
Metals	Potassium	7440-09-7	mg/kg			1,810		3,100		2,200				1,900				3,700				1,600	
Metals	Selenium	7782-49-2	mg/kg			1.12	U	1.1	U	0.61	U			0.61	U			1.1	U			0.53	U
Metals	Silver	7440-22-4	mg/kg			1.12	U	1.1	U	0.61	U			0.61	U			1.1	U			0.53	U
Metals	Sodium	7440-23-5	mg/kg			237		240		190				130				120				150	
Metals	Thallium	7440-28-0	mg/kg			5.62	U	1.1	U	0.61	U			0.61	U			1.1	U			0.69	
Metals	Vanadium	7440-62-2	mg/kg			14.7		35		16				23				31				13	
Metals	Zinc	7440-66-6	mg/kg			26.5		72		26				31				42				20	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-16		B-17		B-18		B-18		B-18		B-19		B-20		B-20		B-20		B-200	
			Field Sample ID	C062104-B16-6-8		C062104-B17-12-12.5		C062104-B18-12-13.2		C062104-B18-4-6		C062104-B18-6-7.5		C062104-B19-12-13.5		C062104-B20-14-14.8		C062104-B20-4-6		C062104-B20-8-10		B200 ≤1	
			Sample Start Depth	6		12		12		4		6		12		14		4		8		0	
			Sample End Depth	8		12.5		13.2		6		7.5		13.5		14.8		6		10		3	
			Sample Date	6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.21	U	0.29	U	0.22	U	61	U	0.21	U	0.24	U	0.21	U	0.17	U	0.14	U		
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	2-Hexanone	591-78-6	mg/kg	0.017	U	0.024	U	0.017	U	4.9	U	0.017	U	0.019	U	0.017	U	0.014	U	0.011	U		
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.017	U	0.024	U	0.017	U	4.9	U	0.017	U	0.019	U	0.017	U	0.014	U	0.011	U		
VOCs	Acetone	67-64-1	mg/kg	0.041	U	0.059	U	0.043	U	12	U	0.043	U	0.048	U	0.042	U	0.034	U	0.028	U		
VOCs	Benzene	71-43-2	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Bromobenzene	108-86-1	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Bromoform	75-25-2	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Bromomethane	74-83-9	mg/kg	0.0041	U	0.0059	U	0.0043	U	1.2	U	0.0043	U	0.0048	U	0.0042	U	0.0034	U	0.0028	U		
VOCs	Carbon disulfide	75-15-0	mg/kg	0.041	U	0.059	U	0.043	U	12	U	0.043	U	0.048	U	0.042	U	0.034	U	0.028	U		
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Chloroethane	75-00-3	mg/kg	0.0041	U	0.0059	U	0.0043	U	1.2	U	0.0043	U	0.0048	U	0.0042	U	0.0034	U	0.0028	U		
VOCs	Chloroform	67-66-3	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Chloromethane	74-87-3	mg/kg	0.0041	U	0.0059	U	0.0043	U	1.2	U	0.0043	U	0.0048	U	0.0042	U	0.0034	U	0.0028	U		
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Dibromomethane	74-95-3	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	m&p-Xylenes	NA	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.017	U	0.024	U	0.017	U	4.9	U	0.017	U	0.019	U	0.017	U	0.014	U	0.011	U		
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0041	U	0.0059	U	0.0043	U	1.2	U	0.0043	U	0.0048	U	0.0042	U	0.0034	U	0.0028	U		
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0041	U	0.0059	U	0.0043	U	1.2	U	0.0043	U	0.0048	U	0.0042	U	0.0034	U	0.0028	U		
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Naphthalene	91-20-3	mg/kg	0.021	U	0.029	U	0.022	U	6.1	U	0.021	U	0.024	U	0.021	U	0.017	U	0.014	U		
VOCs	o-Xylene	95-47-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Styrene	100-42-5	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.0041	U	0.0059	U	0.0043	U	1.2	U	0.0043	U	0.0048	U	0.0042	U	0.0034	U	0.0028	U		
VOCs	Toluene	108-88-3	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Trichloroethene	79-01-6	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0021	U	0.0029	U	0.0022	U	0.61	U	0.0021	U	0.0024	U	0.0021	U	0.0017	U	0.0014	U		
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0041	U	0.0059	U	0.0043	U	1.2	U	0.0043	U	0.0048	U	0.0042	U	0.0034	U	0.0028	U		
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-16		B-17		B-18		B-18		B-18		B-19		B-20		B-20		B-20		B-200	
			Field Sample ID	C062104-B16-6-8		C062104-B17-12-12.5		C062104-B18-12-13.2		C062104-B18-4-6		C062104-B18-6-7.5		C062104-B19-12-13.5		C062104-B20-14-14.8		C062104-B20-4-6		C062104-B20-8-10		B200 ≤1	
			Sample Start Depth	6		12		12		4		6		12		14		4		8		0	
			Sample End Depth	8		12.5		13.2		6		7.5		13.5		14.8		6		10		3	
			Sample Date	6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg	0.72	U					0.73	U	0.73	U					0.71	U	0.75	U		
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg	0.72	U					0.73	U	0.73	U					0.71	U	0.75	U		
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg	1.8	U					1.8	U	1.8	U					1.8	U	1.9	U		
SVOCs	Acenaphthene	83-32-9	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Acenaphthylene	208-96-8	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Acetophenone	98-86-2	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Aniline	62-53-3	mg/kg	1.8	U					1.8	U	1.8	U					1.8	U	1.9	U		
SVOCs	Anthracene	120-12-7	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Azobenzene	103-33-3	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg	0.36	U					0.36	U	0.36	U					0.24	J	0.22	J		
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	DIBENZOFURAN	132-64-9	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Diethyl phthalate	84-66-2	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Fluoranthene	206-44-0	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	Fluorene	86-73-7	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	ISOPHORONE	78-59-1	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	NITROBENZENE	98-95-3	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg	1.8	U					1.8	U	1.8	U					1.8	U	1.9	U		
SVOCs	Phenanthrene	85-01-8	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
SVOCs	PHENOL	108-95-2	mg/kg	0.36	U					0.36	U	0.36	U					0.35	U	0.38	U		
SVOCs	Pyrene	129-00-0	mg/kg	0.18	U					0.18	U	0.18	U					0.18	U	0.19	U		
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																			0.38	U
EPH	Acenaphthene	83-32-9	mg/kg																			0.38	U
EPH	Acenaphthylene	208-96-8	mg/kg																			0.38	U
EPH	Anthracene	120-12-7	mg/kg																			0.38	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg																			0.38	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg																			0.38	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																			0.38	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																			0.38	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																			0.38	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.6	U					3.6	U											12	
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg									4.9						3.6	U	3.7	U	12	
EPH	C19-C36 Aliphatics	NA	mg/kg	3.6	U					3.6	U	12						3.6	U	3.7	U	15	
EPH	C9-C18 Aliphatics	NA	mg/kg	3.6	U					3.6	U	3.6	U					3.6	U	3.7	U	3.8	U
EPH	Chrysene	218-01-9	mg/kg																			0.38	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																			0.38	U
EPH	Fluoranthene	206-44-0	mg/kg																			0.38	
EPH	Fluorene	86-73-7	mg/kg																			0.38	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																			0.38	U
EPH	Naphthalene	91-20-3	mg/kg																			0.38	U
EPH	Phenanthrene	85-01-8	mg/kg																			0.38	U
EPH	Pyrene	129-00-0	mg/kg																			0.4	
EPH	Total EPH	NA	mg/kg							3.6	U	17						3.6	U	3.7	U	27	
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-16		B-17		B-18		B-18		B-18		B-19		B-20		B-20		B-20		B-200	
				Field Sample ID	C062104-B16-6-8		C062104-B17-12-12.5		C062104-B18-12-13.2		C062104-B18-4-6		C062104-B18-6-7.5		C062104-B19-12-13.5		C062104-B20-14-14.8		C062104-B20-4-6		C062104-B20-8-10		B200 ≤1	
				Sample Start Depth	6		12		12		4		6		12		14		4		8		0	
				Sample End Depth	8		12.5		13.2		6		7.5		13.5		14.8		6		10		3	
				Sample Date	6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		6/21/2004		11/10/2005	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																					
VPH	Ethylbenzene	100-41-4	mg/kg																					
VPH	m&p-Xylenes	NA	mg/kg																					
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																					
VPH	Naphthalene	91-20-3	mg/kg																					
VPH	o-Xylene	95-47-6	mg/kg																					
VPH	Toluene	108-88-3	mg/kg																					
VPH	Total VPH	NA	mg/kg																					
Metals	Aluminum	7429-90-5	mg/kg	16,000						11,000		14,000						15,000		12,000		9,210	J
Metals	Antimony	7440-36-0	mg/kg	1.1	U	1.4	U	1.4	U	2.3	U	2.4	U	1.5	U	1.5	U	2.4	U	2.2	U	0.37	J
Metals	Arsenic	7440-38-2	mg/kg	110		27		41		30		28		19		42		37		23		49	J
Metals	Barium	7440-39-3	mg/kg	72						31		52						50		46		64.1	J
Metals	Beryllium	7440-41-7	mg/kg	0.29		0.14	U	0.14	U	0.23	U	0.31		0.15	U	0.15	U	0.3		0.36		0.32	B
Metals	Cadmium	7440-43-9	mg/kg	0.11	U					0.23	U	0.24	U					0.24	U	0.22	U	0.58	U
Metals	Calcium	7440-70-2	mg/kg	2,000						1,200		1,800						1,400		1,400		2,160	
Metals	Chromium	7440-47-3	mg/kg	130		330		1100		1100		650		61		76		360		52		2310	
Metals	Cobalt	7440-48-4	mg/kg	13						5.7		9.1						8.8		11		5.6	J
Metals	Copper	7440-50-8	mg/kg	31		270		460		77		97		150		50		130		180		258	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	120						31		26						10		3.6		17.6	J
Metals	Iron	7439-89-6	mg/kg	23,000						15,000		17,000						18,000		16,000		14,900	
Metals	Lead	7439-92-1	mg/kg	7.5		15		11		15		7.2		8.3		6.9		6.4		6.4		97.5	
Metals	Magnesium	7439-95-4	mg/kg	12,000						6,900		7,900						8,300		6,600		5,420	J
Metals	Manganese	7439-96-5	mg/kg	380						130		280						290		480		242	J
Metals	Mercury	7439-97-6	mg/kg	0.11	U					0.087	U	0.075	U					0.1	U	0.099	U	0.075	
Metals	Nickel	7440-02-0	mg/kg	55						28		35						35		36		22	J
Metals	Potassium	7440-09-7	mg/kg	4,000						1,700		2,000						2,000		2,000		2,060	J
Metals	Selenium	7782-49-2	mg/kg	0.56	U					1.1	U	1.2	U					1.2	U	1.1	U	0.58	U
Metals	Silver	7440-22-4	mg/kg	0.56	U					1.1	U	1.2	U					1.2	U	1.1	U	0.23	B
Metals	Sodium	7440-23-5	mg/kg	170						110	U	270						120	U	110		33.8	B
Metals	Thallium	7440-28-0	mg/kg	0.8						1.1	U	1.2	U					1.2	U	1.1	U	1.1	B
Metals	Vanadium	7440-62-2	mg/kg	40						24		27						30		24		41.8	J
Metals	Zinc	7440-66-6	mg/kg	49						29		35						36		36		35.9	J
Cyanide	Cyanide, Reactive	NA	mg/kg																					
Other	Sulfide, Reactive	NA	mg/kg																					
Other	TOTAL ORGANIC CARBON	NA	mg/kg																					
TIC	.alpha.-Pinene	NA	mg/kg																					
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																					
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																					
TIC	1-4-Methanonaphthalene	NA	mg/kg																					
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																					
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																					
TIC	1-Methyl-Pyrene	NA	mg/kg																					
TIC	1S-.alpha.-Pinene	NA	mg/kg																					
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																					
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																					
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																					
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																					
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																					
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																					
TIC	2-Methylanthracene	613-12-7	mg/kg																					
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																					
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																					
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																					
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																					
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																					
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																					
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																					
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																					
TIC	Cyclic octaatomic sulfur	NA	mg/kg							0.38	J													
TIC	Cyclopentane, methyl-	NA	mg/kg																					
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																					
TIC	Hexanal	0066-25-1	mg/kg																					
TIC	Pentane, 2-methyl-	NA	mg/kg																					
TIC	Pentane, 3-methyl-	NA	mg/kg																					
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																					

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-200		B-200		B-200		B-201		B-201		B-201		B-201		B-202		B-202		B-202	
			Field Sample ID	B200 s2		B200 s2 RE		B200 s3		B201 s1		B201 s2		B201 s3		B201 s4		B202 s1		B202 s2		B202 s3	
			Sample Start Depth	4		4		7		0		4		7		11		0		4		7	
			Sample End Depth	7		7		11		3		7		11		12		3		7		11	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-200		B-200		B-200		B-201		B-201		B-201		B-201		B-202		B-202		B-202	
				Field Sample ID	B200 s2		B200 s2 RE		B200 s3		B201 s1		B201 s2		B201 s3		B201 s4		B202 s1		B202 s2		B202 s3	
				Sample Start Depth	4		4		7		0		4		7		11		0		4		7	
				Sample End Depth	7		7		11		3		7		11		12		3		7		11	
				Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Acenaphthene	83-32-9	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Acenaphthylene	208-96-8	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Anthracene	120-12-7	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	C11-C22 Aromatics	NA	mg/kg			11	UJ	4.3		3.6	U	3.7	U	3.8	U	3.7	U	7		4.7		3.7	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg			11	UJ	4.3		3.6	U	3.7	U	3.8	U	3.7	U	7		4.7		3.7	U
EPH	C19-C36 Aliphatics	NA	mg/kg			40	J	7.4		4.4		3.7	U	6.7		9.6		6.7		4.5		3.7	U
EPH	C9-C18 Aliphatics	NA	mg/kg			13	J	3.6	U	3.6	U	3.7	U	3.8	U	5.8		3.7	U	3.7	U	3.7	U
EPH	Chrysene	218-01-9	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Fluoranthene	206-44-0	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Fluorene	86-73-7	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Naphthalene	91-20-3	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Phenanthrene	85-01-8	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Pyrene	129-00-0	mg/kg			1.1	UJ	0.36	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.37	U
EPH	Total EPH	NA	mg/kg			53	J	12		4.4		3.7	U	6.7		15		14		9.3		3.7	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-200		B-200		B-200		B-201		B-201		B-201		B-201		B-202		B-202		B-202	
			Field Sample ID	B200 s2		B200 s2 RE		B200 s3		B201 s1		B201 s2		B201 s3		B201 s4		B202 s1		B202 s2		B202 s3	
			Sample Start Depth	4		4		7		0		4		7		11		0		4		7	
			Sample End Depth	7		7		11		3		7		11		12		3		7		11	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	11,100	J			20,000	J	11,000	J	16,900	J	13,400	J	16,500	J	14,000	J	11,500	J	22,200	J
Metals	Antimony	7440-36-0	mg/kg	0.4	J			0.44	J	1.1	UJ	1.1	UJ	1.2	UJ	1.1	UJ	1.1	UJ	1.2	UJ	1.1	UJ
Metals	Arsenic	7440-38-2	mg/kg	24.4				11.9		36.5	J	35.8		20.6		25.8		41.5	J	32.5		56.1	
Metals	Barium	7440-39-3	mg/kg	48.9				128		68.3	J	90.9		69.7		31.1		57.4	J	45.3		104	
Metals	Beryllium	7440-41-7	mg/kg	0.47	J			0.47		0.42	B	0.68	J	0.47		0.39	B	0.61		0.55	J	0.66	
Metals	Cadmium	7440-43-9	mg/kg	0.56	U			0.57	U	0.54	U	0.56	U	0.58	U	0.54	U	0.56	U	0.58	U	0.57	U
Metals	Calcium	7440-70-2	mg/kg	835				1,230		812		1,080		2,300		1,950		1,030		1,380		2,440	
Metals	Chromium	7440-47-3	mg/kg	1060				790	J	225		831		487	J	641	J	47.4		38.7		1210	J
Metals	Cobalt	7440-48-4	mg/kg	8.8				13.9		6.6	J	10		8.6		16.7		8.3	J	7.6		16.4	
Metals	Copper	7440-50-8	mg/kg	386				317	J	48.1		281		268	J	182	J	20.8		14.8		442	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	41.8				53.2	J	29.4	J	16.7		31.1	J	159	J	0.45	UJ	0.46	U	96.7	J
Metals	Iron	7439-89-6	mg/kg	18,800				32,200	J	18,000		22,900		18,500	J	29,300	J	19,700		18,100		34,000	J
Metals	Lead	7439-92-1	mg/kg	7.3				8.8		11.9		8.8		6.8		5.9		122		15.2		7.7	
Metals	Magnesium	7439-95-4	mg/kg	7,430				15,100	J	8,260	J	9,160		8,770	J	15,300	J	8,570	J	6,680		17,500	J
Metals	Manganese	7439-96-5	mg/kg	228	J			368	J	261	J	462	J	352	J	356	J	265	J	257	J	357	J
Metals	Mercury	7439-97-6	mg/kg	0.037	U			0.038	U	0.036	U	0.037	U	0.038	U	0.035	U	0.066		0.012	B	0.038	U
Metals	Nickel	7440-02-0	mg/kg	38.2				56.6		32.6	J	43.7		38.5		56.6		37.4	J	30.2		71.7	
Metals	Potassium	7440-09-7	mg/kg	2,300	J			9,470	J	3,470	J	3,470	J	3,660	J	1,780	J	2,920	J	2,120	J	7,630	J
Metals	Selenium	7782-49-2	mg/kg	0.56	U			0.57	U	0.54	U	0.64		0.58	U	0.54	U	0.56	U	0.39	B	0.57	U
Metals	Silver	7440-22-4	mg/kg	0.049	B			0.065	B	0.067	B	0.045	B	0.099	B	0.1	B	0.049	B	0.58	U	0.1	B
Metals	Sodium	7440-23-5	mg/kg	559	U			44.7	B	17.3	B	559	U	117	B	537	U	19.8	B	42.6	B	52.9	B
Metals	Thallium	7440-28-0	mg/kg	0.69	B			1.1		1.1	U	0.98	B	1.2	U	0.62	B	0.56	B	1.2	U	1.4	
Metals	Vanadium	7440-62-2	mg/kg	26.5				59.4		40.2	J	34.5		32		50		35	J	27.8		63.5	
Metals	Zinc	7440-66-6	mg/kg	36.8	J			65.2	J	35.5	J	42.2	J	34.9	J	67	J	43.8	J	34.4	J	68.8	J
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-202		B-203		B-203		B-203		B-204		B-204		B-204		B-205		B-205		B-205	
			Field Sample ID	B202 s4		B203 s1		B203 s2		B203 s3		B204 s1		B204 s2		B204 s3		B205 s1		B205 s2		B205 s3	
			Sample Start Depth	11		0		4		7		0		4		7		0		4		7	
			Sample End Depth	12.5		3		7		11		3		7		11		3		7		11	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-202		B-203		B-203		B-203		B-204		B-204		B-204		B-205		B-205		B-205	
			Field Sample ID	B202 s4		B203 s1		B203 s2		B203 s3		B204 s1		B204 s2		B204 s3		B205 s1		B205 s2		B205 s3	
			Sample Start Depth	11		0		4		7		0		4		7		0		4		7	
			Sample End Depth	12.5		3		7		11		3		7		11		3		7		11	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Acenaphthene	83-32-9	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Anthracene	120-12-7	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.95		0.37	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.5	U	3.7	U	3.9	U	3.7	U	3.7	U	3.7	U	4.4		3.8	U	4.6		3.7	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	3.5	U	3.7	U	3.9	U	3.7	U	3.7	U	3.7	U	4.4		3.8	U	5.6		3.7	U
EPH	C19-C36 Aliphatics	NA	mg/kg	7.4		3.7	U	9.9		3.7	U	3.8		3.7	U	6.2		5		4.9		3.7	U
EPH	C9-C18 Aliphatics	NA	mg/kg	4.6		3.7	U	5		3.7	U	3.7	U	3.7	U	3.6	U	3.8	U	3.8	U	3.7	U
EPH	Chrysene	218-01-9	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Fluoranthene	206-44-0	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Fluorene	86-73-7	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Naphthalene	91-20-3	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Phenanthrene	85-01-8	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Pyrene	129-00-0	mg/kg	0.35	U	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.36	U	0.38	U	0.38	U	0.37	U
EPH	Total EPH	NA	mg/kg	12		3.7	U	15		3.7	U	3.8		3.7	U	11		5		9.5		3.7	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-202		B-203		B-203		B-203		B-204		B-204		B-204		B-205		B-205		B-205	
			Field Sample ID	B202 s4		B203 s1		B203 s2		B203 s3		B204 s1		B204 s2		B204 s3		B205 s1		B205 s2		B205 s3	
			Sample Start Depth	11		0		4		7		0		4		7		0		4		7	
			Sample End Depth	12.5		3		7		11		3		7		11		3		7		11	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	15,700	J	19,000	J	21,700	J	22,700	J	10,400	J	13,700	J	10,900	J	15,200	J	12,900	J	7,550	J
Metals	Antimony	7440-36-0	mg/kg	1.1	UJ	1.1	UJ	1.2	UJ	0.44	J	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ
Metals	Arsenic	7440-38-2	mg/kg	38.4		90	J	51.7		155		16.1	J	35.2		35.8		33.6	J	28.8		32.5	
Metals	Barium	7440-39-3	mg/kg	93.4		70.5	J	143		142		61.3	J	56.5		60.8		53.8	J	52.7		54.5	
Metals	Beryllium	7440-41-7	mg/kg	0.48		0.81		0.53	J	0.49		0.48		0.51	J	0.38	B	0.61		0.59	J	0.3	B
Metals	Cadmium	7440-43-9	mg/kg	0.54	U	0.57	U	0.6	U	0.58	U	0.55	U	0.56	U	0.56	U	0.57	U	0.57	U	0.55	U
Metals	Calcium	7440-70-2	mg/kg	1,930		1,240		3,200		3,220		18,300		2,520		4,360		1,110		1,510		1,440	
Metals	Chromium	7440-47-3	mg/kg	923	J	415		762		672	J	35.6		55.2		115	J	57.3		88.9		143	J
Metals	Cobalt	7440-48-4	mg/kg	18.1		11.3	J	13.9		12.9		5.3	J	10.3		7.5		7.7	J	7		5	B
Metals	Copper	7440-50-8	mg/kg	275	J	217		738		513	J	20.2		101		198	J	14.9		35.8		127	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	132	J	12.5	J	23.8		69.2	J	0.44	UJ	2.2		2.2	J	0.46	UJ	0.55		2.3	J
Metals	Iron	7439-89-6	mg/kg	25,100	J	23,800		29,100		29,600	J	12,900		21,600		17,200	J	19,100		16,900		11,400	J
Metals	Lead	7439-92-1	mg/kg	10		16.4		5.2		4.4		64		5.4		58.4		48.3		55.7		5.4	
Metals	Magnesium	7439-95-4	mg/kg	12,300	J	11,700	J	15,400		15,100	J	5,450	J	10,200		8,080	J	7,980	J	6,790		4,010	J
Metals	Manganese	7439-96-5	mg/kg	378	J	467	J	309	J	401	J	191	J	269	J	288	J	213	J	234	J	208	J
Metals	Mercury	7439-97-6	mg/kg	0.035	U	0.031	B	0.039	U	0.038	U	0.062		0.037	U	0.054		0.047		0.015	B	0.037	U
Metals	Nickel	7440-02-0	mg/kg	70.5		47.1	J	57.8		57.9		23.6	J	39.6		34.7		34.5	J	28.6		23.8	
Metals	Potassium	7440-09-7	mg/kg	5,660	J	4,150	J	7,950	J	6,910	J	2,130	J	2,990	J	3,580	J	2,490	J	1,880	J	1,690	J
Metals	Selenium	7782-49-2	mg/kg	0.32	B	0.38	B	0.33	B	0.62		0.55	U	0.56	U	0.56	U	0.63		0.48	B	0.55	
Metals	Silver	7440-22-4	mg/kg	0.059	B	0.36	B	0.13	B	0.19	B	0.19	B	0.56	U	0.56	U	0.04	B	0.57	U	0.55	U
Metals	Sodium	7440-23-5	mg/kg	76.3	B	568	U	171	B	168	B	69.1	B	52.2	B	61.8	B	35.1	B	53.9	B	110	B
Metals	Thallium	7440-28-0	mg/kg	0.98	B	1.1	U	0.83	B	0.6	B	1.1	U	0.57	B	1.1	U	1.1	U	1.1	U	1.1	U
Metals	Vanadium	7440-62-2	mg/kg	41.3		40	J	60.5		67		21.8	J	37		28.7		34.3	J	29.9		16.4	
Metals	Zinc	7440-66-6	mg/kg	59.8	J	52.4	J	58.6	J	56.6	J	48.2	J	41.3	J	58	J	45.8	J	41.5	J	23.4	J
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-205		B-206		B-206		B-206		B-207		B-207		B-207		B-208		B-208		B-208	
			Field Sample ID	B205 s4		B206 s1		B206 s2		B206 s3		B207 s1		B207 s2		B207 s3		B208 s1		B208 s1 RE		B208 s2	
			Sample Start Depth	11		0		4		7		0		4		7		0		0		4	
			Sample End Depth	12		3		7		11		3		7		11		3		3		7	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-205		B-206		B-206		B-206		B-207		B-207		B-207		B-208		B-208		B-208	
			Field Sample ID	B205 s4		B206 s1		B206 s2		B206 s3		B207 s1		B207 s2		B207 s3		B208 s1		B208 s1 RE		B208 s2	
			Sample Start Depth	11		0		4		7		0		4		7		0		0		4	
			Sample End Depth	12		3		7		11		3		7		11		3		3		7	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Acenaphthene	83-32-9	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Anthracene	120-12-7	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.37	U	0.78		0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.37	U	0.64		0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.37	U	1		0.37	U	0.37	U	1	J	0.37	U	0.35	U			1.5	J	0.37	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.37	U	1.1		0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.7	U	44		3.7	U	9.6		29	J	3.7	U	3.5	U			12	J	3.7	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	3.7	U	52		3.7	U	11		31	J	3.7	U	3.5	U			13	J	3.7	U
EPH	C19-C36 Aliphatics	NA	mg/kg	14		22		3.7	U	3.7	U	11	J	3.7	U	3.5	U			5.8	J	3.7	U
EPH	C9-C18 Aliphatics	NA	mg/kg	5.9		4	U	3.7	U	3.7	U	11	J	3.7	U	3.5	U			4.6	UJ	3.7	U
EPH	Chrysene	218-01-9	mg/kg	0.37	U	0.85		0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Fluoranthene	206-44-0	mg/kg	0.37	U	1.7		0.37	U	0.41		0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.27	J
EPH	Fluorene	86-73-7	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Naphthalene	91-20-3	mg/kg	0.37	U	0.4	U	0.37	U	0.37	U	0.93	J	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Phenanthrene	85-01-8	mg/kg	0.37	U	0.53		0.37	U	0.37	U	0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Pyrene	129-00-0	mg/kg	0.37	U	2.1		0.37	U	0.55		0.43	UJ	0.37	U	0.35	U			0.46	UJ	0.37	U
EPH	Total EPH	NA	mg/kg	20		66		3.7	U	9.6		51	J	3.7	U	3.5	U			17	J	3.7	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-205		B-206		B-206		B-206		B-207		B-207		B-207		B-208		B-208		B-208	
			Field Sample ID	B205 s4		B206 s1		B206 s2		B206 s3		B207 s1		B207 s2		B207 s3		B208 s1		B208 s1 RE		B208 s2	
			Sample Start Depth	11		0		4		7		0		4		7		0		0		4	
			Sample End Depth	12		3		7		11		3		7		11		3		3		7	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	8,680	J	14,400	J	12,500	J	27,100	J	19,100	J	10,300	J	6,520	J	15,700	J			9,960	J
Metals	Antimony	7440-36-0	mg/kg	1.1	UJ	0.62	J	1	UJ	0.59	J	1.1	UJ	1.1	UJ	1.1	UJ	1.2	UJ			1.1	UJ
Metals	Arsenic	7440-38-2	mg/kg	43.3		36.3	J	57.2		132		32	J	91.2		82.7		41.3	J			38.4	
Metals	Barium	7440-39-3	mg/kg	69		237	J	145		261		125	J	66.8		37		79.6	J			47.8	
Metals	Beryllium	7440-41-7	mg/kg	0.31	B	0.6		0.35	BJ	0.64		0.63		0.4	BJ	0.26	B	0.72				0.46	J
Metals	Cadmium	7440-43-9	mg/kg	0.56	U	0.92		0.52	U	0.65	U	0.55	U	0.55	U	0.54	U	0.58	U			0.57	U
Metals	Calcium	7440-70-2	mg/kg	1,360		3,080		3,480		7,780		2,720		2,160		1,390		1,190				1,060	
Metals	Chromium	7440-47-3	mg/kg	106	J	48.8		51.5		129	J	103		51.4		51.1	J	251				70.8	
Metals	Cobalt	7440-48-4	mg/kg	5.3	B	8.3	J	7.2		15.5		8.2	J	7.7		5.6		8.5	J			6.3	
Metals	Copper	7440-50-8	mg/kg	127	J	29.6		49.4		281	J	217		119		93.7	J	297				111	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	10.1	J	0.48	UJ	2.8		0.52	UJ	0.44	UJ	5.6		5.9	J	0.46	UJ			3.5	
Metals	Iron	7439-89-6	mg/kg	13,000	J	19,100		15,500		32,000	J	21,300		16,400		11,100	J	18,400				13,100	
Metals	Lead	7439-92-1	mg/kg	4.2		11.1		3.8		54.2		15.4		4.1		5.5		105				6.6	
Metals	Magnesium	7439-95-4	mg/kg	5,310	J	8,100	J	6,590		14,400	J	9,010	J	7,150		4,450	J	6,140	J			5,110	
Metals	Manganese	7439-96-5	mg/kg	250	J	297	J	308	J	636	J	316	J	374	J	211	J	327	J			204	J
Metals	Mercury	7439-97-6	mg/kg	0.013	B	0.34		0.034	U	0.027	B	0.028	B	0.036	U	0.0088	B	0.14				0.0092	B
Metals	Nickel	7440-02-0	mg/kg	29.8		33.7	J	32.6		41.1		43.4	J	35		25.5		32.5	J			28.3	
Metals	Potassium	7440-09-7	mg/kg	2,820	J	2,360	J	4,470	J	9,930	J	5,800	J	3,220	J	1,380	J	1,400	J			1,340	J
Metals	Selenium	7782-49-2	mg/kg	0.56	U	0.58	B	0.52	U	0.47	B	0.59		0.55	U	0.54	U	0.94				0.53	B
Metals	Silver	7440-22-4	mg/kg	0.56	U	0.22	B	0.048	B	0.28	B	0.82		0.046	B	0.54	U	0.063	B			0.57	U
Metals	Sodium	7440-23-5	mg/kg	87	B	603	U	272	B	839		406	B	160	B	88.2	B	576	U			48.5	B
Metals	Thallium	7440-28-0	mg/kg	1.1	U	1.2	U	1	U	1.3	U	0.53	B	1.1	U	1.1	U	0.79	B			0.7	B
Metals	Vanadium	7440-62-2	mg/kg	20.1		31.4	J	34.2		84.8		37.3	J	25.8		16		29.4	J			19.2	
Metals	Zinc	7440-66-6	mg/kg	25.7	J	554	J	25.1	J	70.6	J	37.4	J	30.8	J	21.9	J	75.7	J			27.9	J
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-208		B-208		B-209		B-209		B-209		B-209		B-210		B-210		B-210		B-210	
			Field Sample ID	B208 s3		B208 s4		B209 s1		B209 s2		B209 s3		B209 s4		B210 s1		B210 s2		B210 s3		B210 s4	
			Sample Start Depth	7		11		0		4		7		11		0		4		7		11	
			Sample End Depth	11		14.5		3		7		11		13.5		3		7		11		15	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-208		B-208		B-209		B-209		B-209		B-209		B-210		B-210		B-210		B-210	
			Field Sample ID	B208 s3		B208 s4		B209 s1		B209 s2		B209 s3		B209 s4		B210 s1		B210 s2		B210 s3		B210 s4	
			Sample Start Depth	7		11		0		4		7		11		0		4		7		11	
			Sample End Depth	11		14.5		3		7		11		13.5		3		7		11		15	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Acenaphthene	83-32-9	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Anthracene	120-12-7	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.38	U	0.37	U	0.7		0.37	U	0.38	U	0.37	U	0.76	J	0.37	U	0.38	U	0.36	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.8	U	3.7	U	3.9		3.7	U	3.8	U	3.7	U	6.3	J	8.6		3.8	U	3.6	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	3.8	U	3.7	U	4.6		3.7	U	3.8	U	3.7	U	7	J	8.6		3.8	U	3.6	U
EPH	C19-C36 Aliphatics	NA	mg/kg	3.8	U	10		6.6		3.7	U	3.8	U	10		7.2	J	10		3.8	U	7.8	
EPH	C9-C18 Aliphatics	NA	mg/kg	3.8	U	7.1		3.7	U	3.7	U	3.8	U	4.3		4.4	UJ	3.7	U	3.8	U	4.5	
EPH	Chrysene	218-01-9	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Fluoranthene	206-44-0	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Fluorene	86-73-7	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Naphthalene	91-20-3	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Phenanthrene	85-01-8	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Pyrene	129-00-0	mg/kg	0.38	U	0.37	U	0.37	U	0.37	U	0.38	U	0.37	U	0.44	UJ	0.37	U	0.38	U	0.36	U
EPH	Total EPH	NA	mg/kg	3.8	U	17		10		3.7	U	3.8	U	15		13	J	19		3.8	U	12	
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-208		B-208		B-209		B-209		B-209		B-209		B-210		B-210		B-210		B-210	
			Field Sample ID	B208 s3		B208 s4		B209 s1		B209 s2		B209 s3		B209 s4		B210 s1		B210 s2		B210 s3		B210 s4	
			Sample Start Depth	7		11		0		4		7		11		0		4		7		11	
			Sample End Depth	11		14.5		3		7		11		13.5		3		7		11		15	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	5,380	J	8,440	J	15,100	J	10,700	J	5,660	J	5,560	J	15,200	J	4,730	J	6,140	J	4,780	J
Metals	Antimony	7440-36-0	mg/kg	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.2	UJ	1.1	UJ	1.3	UJ	1.1	UJ	1.2	UJ	1.1	UJ
Metals	Arsenic	7440-38-2	mg/kg	22.7		18.2		31	J	57.2		15.5		15.2		52.8	J	15.9		15.6		15.9	
Metals	Barium	7440-39-3	mg/kg	29.3		50.4		48.3	J	44.5		28.7		25.7		44.7	J	20.8	B	29.3		24.6	
Metals	Beryllium	7440-41-7	mg/kg	0.27	B	0.43	B	0.75		0.51	J	0.27	B	0.27	B	0.71		0.31	BJ	0.33	B	0.28	B
Metals	Cadmium	7440-43-9	mg/kg	0.56	U	0.56	U	0.56	U	0.53	U	0.58	U	0.57	U	0.63	U	0.56	U	0.58	U	0.54	U
Metals	Calcium	7440-70-2	mg/kg	1,210		3,300		1,630		1,100		1,230		928		1,500		1,360		1,750		4,160	
Metals	Chromium	7440-47-3	mg/kg	23.5	J	60.7	J	87.1		77.7		29.7	J	27.2	J	352		20.3		85.5	J	70.1	J
Metals	Cobalt	7440-48-4	mg/kg	5	B	7.6		6.1	J	8.6		4.8	B	4	B	10.2	J	4.2	B	4.6	B	4.8	B
Metals	Copper	7440-50-8	mg/kg	78.8	J	39.6	J	12.1		116		70	J	59.6	J	13.3		8.3		8.9	J	8.9	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	2.4	J	5.2	J	0.44	UJ	5.7		2.6	J	1.5	J	4.4	J	2.4		5.1	J	6.2	J
Metals	Iron	7439-89-6	mg/kg	9,450	J	14,300	J	16,900		17,000		9,540	J	8,780	J	20,100		8,410		10,700	J	8,850	J
Metals	Lead	7439-92-1	mg/kg	3.9		5.7		14.1		10.9		3.9		3.4		9.2		4.9		4		3.6	
Metals	Magnesium	7439-95-4	mg/kg	3,080	J	5,420	J	5,060	J	6,630		3,600	J	3,100	J	7,700	J	2,310		3,040	J	3,210	J
Metals	Manganese	7439-96-5	mg/kg	211	J	311	J	243	J	244	J	176	J	162	J	352	J	172	J	130	J	175	J
Metals	Mercury	7439-97-6	mg/kg	0.037	U	0.0097	B	0.036	B	0.0093	B	0.038	U	0.038	U	0.04	B	0.037	U	0.039	U	0.035	U
Metals	Nickel	7440-02-0	mg/kg	21.1		33.1		26.7	J	36.8		20		17.4		37.3	J	18.1		21		18.2	
Metals	Potassium	7440-09-7	mg/kg	1,220	J	2,490	J	777	J	1,820	J	1,200	J	850	J	2,060	J	920	J	1,580	J	1,450	J
Metals	Selenium	7782-49-2	mg/kg	0.56	U	0.56	U	0.6		0.3	B	0.58	U	0.57	U	0.65		0.56	U	0.58	U	0.54	U
Metals	Silver	7440-22-4	mg/kg	0.56	U	0.56	U	0.036	B	0.53	U	0.58	U	0.57	U	0.63	U	0.56	U	0.58	U	0.54	U
Metals	Sodium	7440-23-5	mg/kg	81.7	B	102	B	20.8	B	528	U	75.6	B	57.9	B	19.9	B	67.4	B	92.3	B	69.4	B
Metals	Thallium	7440-28-0	mg/kg	1.1	U	1.1	U	1.1	U	1.1	U	1.2	U	1.1	U	0.61	B	1.1	U	1.2	U	1.1	U
Metals	Vanadium	7440-62-2	mg/kg	11.4		20.5		27.1	J	25.8		12		11.2		30.8	J	9.8		12.4		11.5	
Metals	Zinc	7440-66-6	mg/kg	19.8	J	36.2	J	40.8	J	35	J	19.1	J	16.9	J	34.8	J	17.4	J	22.5	J	19.2	J
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-211		B-211		B-211		B-211		B-212		B-212		B-212		B-212		B-213		B-213	
			Field Sample ID	B211 s1		B211 s2		B211 s3		B211 s4		B212s1		B212s2		B212s3		B212s4		B213s1		B213s2	
			Sample Start Depth	0		4		7		11		0		4		7		11		0		4	
			Sample End Depth	3		7		11		15		3		7		11		15		3		7	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-211		B-211		B-211		B-211		B-212		B-212		B-212		B-212		B-213		B-213	
			Field Sample ID	B211 s1		B211 s2		B211 s3		B211 s4		B212s1		B212s2		B212s3		B212s4		B213s1		B213s2	
			Sample Start Depth	0		4		7		11		0		4		7		11		0		4	
			Sample End Depth	3		7		11		15		3		7		11		15		3		7	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Acenaphthene	83-32-9	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Anthracene	120-12-7	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.8		0.37	U	0.37	U	0.36	U	0.34	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	C11-C22 Aromatics	NA	mg/kg	4.8		5.6		4.2	U	3.7	U	13		7		3.7	U	3.7	U	4.2		3.4	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	4.8		5.6		4.2	U	3.7	U	13		7.8		3.7	U	3.7	U	4.2		3.4	U
EPH	C19-C36 Aliphatics	NA	mg/kg	5.8		9.3		4.2	U	13		11		6.7		16		3.7	U	3.6	U	3.4	U
EPH	C9-C18 Aliphatics	NA	mg/kg	3.8	U	3.7	U	4.2	U	6.4		6.6	U	3.8	U	3.7	U	3.7	U	3.6	U	3.4	U
EPH	Chrysene	218-01-9	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Fluoranthene	206-44-0	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Fluorene	86-73-7	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Naphthalene	91-20-3	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Phenanthrene	85-01-8	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Pyrene	129-00-0	mg/kg	0.38	U	0.37	U	0.42	U	0.37	U	0.66	U	0.38	U	0.37	U	0.37	U	0.36	U	0.34	U
EPH	Total EPH	NA	mg/kg	11		15		4.2	U	19		23		14		16		3.7	U	4.2		3.4	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-211		B-211		B-211		B-211		B-212		B-212		B-212		B-213		B-213	
			Field Sample ID	B211 s1		B211 s2		B211 s3		B211 s4		B212s1		B212s2		B212s3		B212s4		B213s1		B213s2	
			Sample Start Depth	0		4		7		11		0		4		7		11		0		4	
			Sample End Depth	3		7		11		15		3		7		11		15		3		7	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	12,500	J	7,860	J	8,160	J	6,980	J	12,600		10,400		6,890		15,400	J	7,940		8,900	
Metals	Antimony	7440-36-0	mg/kg	1.2	UJ	1.1	UJ	1.2	UJ	1.2	UJ	1.1	UJ	1.1	UJ	1.1	UJ	0.57	J	1.1	UJ	1.1	UJ
Metals	Arsenic	7440-38-2	mg/kg	25.3	J	29		14.5		22.7		32.3		36.3		37.9		118	J	28.4		23.7	
Metals	Barium	7440-39-3	mg/kg	41	J	28.6		46.1		40.5		45		34.9		33.1		66.3	J	33.8		33.5	
Metals	Beryllium	7440-41-7	mg/kg	0.6		0.38	BJ	0.42	B	0.36	B	0.52		0.47		0.33	B	0.61		0.42	B	0.35	B
Metals	Cadmium	7440-43-9	mg/kg	0.59	U	0.55	U	0.61	U	0.58	U	0.57	U	0.57	U	0.55	U	0.55	U	0.57	U	0.55	U
Metals	Calcium	7440-70-2	mg/kg	1,280		1,640		1,640		1,570		903		1,070		1,120		1,390		708		1,080	
Metals	Chromium	7440-47-3	mg/kg	38		26.3		61.6	J	26	J	45.3	J	41.4		305		407		39.5	J	106	
Metals	Cobalt	7440-48-4	mg/kg	7.3	J	6.4		5.2	B	4.7	B	7.7		6.7		6		14.6	J	6.9		6.8	
Metals	Copper	7440-50-8	mg/kg	10.8		11.3		10	J	9.9	J	18.3	J	486	J	44.5	J	613		17	J	79.5	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.47	UJ	0.47		1	J	0.46	UJ	0.46	UJ	0.45	UJ	0.44	UJ	0.44	UJ	0.56	J	2.9	J
Metals	Iron	7439-89-6	mg/kg	15,700		13,300		13,500	J	11,300	J	15,700		13,900		11,700		24,600		11,900		13,000	
Metals	Lead	7439-92-1	mg/kg	9.3		6.9		4.5		4.4		19		7.4		4.2		8.4		5.9		12.6	
Metals	Magnesium	7439-95-4	mg/kg	6,370	J	4,700		3,570	J	3,430	J	5,800		5,670		4,020		10,600	J	3,810		4,860	
Metals	Manganese	7439-96-5	mg/kg	165	J	151	J	162	J	195	J	174	J	198		256		550	J	287	J	187	
Metals	Mercury	7439-97-6	mg/kg	0.023	B	0.036	U	0.04	U	0.015	B	0.017	B	0.037	U	0.036	U	0.036	U	0.0098	B	0.036	U
Metals	Nickel	7440-02-0	mg/kg	31.8	J	26.6		18.6		21.9		30.7		27.4		31.2		66.4	J	26.7		27.1	
Metals	Potassium	7440-09-7	mg/kg	1,330	J	1,840	J	1,940	J	1,540	J	1,520	J	1,560	J	1,530	J	3,570	J	982	J	1,620	J
Metals	Selenium	7782-49-2	mg/kg	0.47	B	0.55	U	0.61	U	0.58	U	0.64		0.45	B	0.55	U	0.55	U	0.45	B	0.32	B
Metals	Silver	7440-22-4	mg/kg	0.59	U	0.55	U	0.61	U	0.58	U	0.066	B	0.57	U	0.55	U	0.083	B	0.57	U	0.23	B
Metals	Sodium	7440-23-5	mg/kg	145	B	98.7	B	89	B	86.8	B	74.5	B	108	B	66.2	B	93.5	B	60.6	B	37	B
Metals	Thallium	7440-28-0	mg/kg	1.2	U	1.1	U	1.2	U	1.2	U	1.1	U	0.6	B	1.1	U	0.62	B	1.1	U	1.1	U
Metals	Vanadium	7440-62-2	mg/kg	24.9	J	18.6		15.8		13.4		25.4		22.5		14.6		34.4	J	15.5		19	
Metals	Zinc	7440-66-6	mg/kg	30.2	J	26.7	J	28	J	26	J	39.8	J	30	J	26.5	J	46.4	J	29.1	J	29.2	J
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-213		B-213		B-214		B-214		B-214		B-214		B-215		B-215		B-215		B-216	
			Field Sample ID	B213s3		B213s4		B214s1		B214s2		B214s3		B214s4		B215s1		B215s2		B215s3		B216s1	
			Sample Start Depth	7		11		0		4		7		11		0		4		7		0	
			Sample End Depth	11		15		3		7		11		15		3		7		11		3	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-213		B-213		B-214		B-214		B-214		B-214		B-215		B-215		B-215		B-216	
			Field Sample ID	B213s3		B213s4		B214s1		B214s2		B214s3		B214s4		B215s1		B215s2		B215s3		B216s1	
			Sample Start Depth	7		11		0		4		7		11		0		4		7		0	
			Sample End Depth	11		15		3		7		11		15		3		7		11		3	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Acenaphthene	83-32-9	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Anthracene	120-12-7	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.6	U	3.7	U	3.6	U	4.5	U	3.8	U	3.7	U	4.2		19		3.6	U	3.9	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	3.6	U	3.7	U	3.6	U	4.5	U	3.8	U	3.7	U	4.2		19		3.6	U	3.9	U
EPH	C19-C36 Aliphatics	NA	mg/kg	5		3.7	U	3.6	U	4.5	U	4.8		3.7	U	5		21		3.6	U	3.9	U
EPH	C9-C18 Aliphatics	NA	mg/kg	3.6	U	3.7	U	3.6	U	4.5	U	3.8	U	3.7	U	3.8	U	3.7	U	3.6	U	3.9	U
EPH	Chrysene	218-01-9	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Fluoranthene	206-44-0	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Fluorene	86-73-7	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Naphthalene	91-20-3	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Phenanthrene	85-01-8	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Pyrene	129-00-0	mg/kg	0.36	U	0.37	U	0.36	U	0.45	U	0.38	U	0.37	U	0.38	U	0.37	U	0.36	U	0.39	U
EPH	Total EPH	NA	mg/kg	5		3.7	U	3.6	U	4.5	U	4.8		3.7	U	9.2		39		3.6	U	3.9	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-213		B-213		B-214		B-214		B-214		B-214		B-215		B-215		B-215		B-216	
			Field Sample ID	B213s3		B213s4		B214s1		B214s2		B214s3		B214s4		B215s1		B215s2		B215s3		B216s1	
			Sample Start Depth	7		11		0		4		7		11		0		4		7		0	
			Sample End Depth	11		15		3		7		11		15		3		7		11		3	
			Sample Date	11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/10/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	14,600		5,390	J	9,850		17,900		9,770		6,350	J	12,900		11,200		8,180		14,200	
Metals	Antimony	7440-36-0	mg/kg	0.5	J	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ
Metals	Arsenic	7440-38-2	mg/kg	34.2		19.9	J	28.5		34.4		20.8		20.2	J	31		36.4		28.5		37.5	
Metals	Barium	7440-39-3	mg/kg	64.8		22.8	J	32.9		99.5		41.7		24.6	J	41.7		51.7		64.5		51.4	
Metals	Beryllium	7440-41-7	mg/kg	0.58		0.31	B	0.45		0.68		0.4	B	0.37	B	0.52		0.48		0.31	B	0.56	
Metals	Cadmium	7440-43-9	mg/kg	0.56	U	0.54	U	0.55	U	0.57	U	0.57	U	0.57	U	0.56	U	0.55	U	0.56	U	0.57	U
Metals	Calcium	7440-70-2	mg/kg	1,350		920		817		1,850		1,550		1,520		822		3,500		1,480		620	
Metals	Chromium	7440-47-3	mg/kg	691		267		99.2	J	113		65.8		76.3		119	J	69.2		114		70.8	J
Metals	Cobalt	7440-48-4	mg/kg	8.7		4	J	6.2		10.7		6.6		6.6	J	7.7		8.2		5.9		9.4	
Metals	Copper	7440-50-8	mg/kg	287	J	193		34.9	J	96.2	J	167	J	62.8		131	J	143	J	156	J	17.7	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.56	J	3.2	J	3.7	J	18.8	J	3.3	J	2.8	J	1.9	J	3.2	J	10.7	J	2.6	J
Metals	Iron	7439-89-6	mg/kg	21,900		9,270		13,400		23,800		15,000		12,600		17,900		16,800		11,800		17,500	
Metals	Lead	7439-92-1	mg/kg	18.3		5.4		15.4		8.4		5.1		7.3		15.1		10		5.8		7.9	
Metals	Magnesium	7439-95-4	mg/kg	8,270		3,110	J	4,900		9,490		5,850		4,380	J	7,320		7,200		5,930		7,360	
Metals	Manganese	7439-96-5	mg/kg	252		88.9	J	231	J	406		217		348	J	265	J	327		274		380	J
Metals	Mercury	7439-97-6	mg/kg	0.037	U	0.011	B	0.036	U	0.037	U	0.038	U	0.038	U	0.037	U	0.014	B	0.037	U	0.038	U
Metals	Nickel	7440-02-0	mg/kg	40.6		23.5	J	23.2		48.9		27.8		26.1	J	34.9		33.4		25.2		39.2	
Metals	Potassium	7440-09-7	mg/kg	3,970	J	1,010	J	1,230	J	4,840	J	2,610	J	1,090	J	2,070	J	2,720	J	2,850	J	2,400	J
Metals	Selenium	7782-49-2	mg/kg	0.56	U	0.56		0.45	B	0.57	U	0.57	U	0.47	B	0.33	B	0.33	B	0.31	B	0.57	U
Metals	Silver	7440-22-4	mg/kg	0.066	B	0.54	U	0.28	B	0.57	U	0.57	U	0.57	U	0.56	U	0.039	B	0.56	U	0.039	B
Metals	Sodium	7440-23-5	mg/kg	33.6	B	50.4	B	42.8	B	52.6	B	87.5	B	95.3	B	47	B	47.9	B	58.8	B	27	B
Metals	Thallium	7440-28-0	mg/kg	0.63	B	0.53	B	1.1	U	0.73	B	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
Metals	Vanadium	7440-62-2	mg/kg	30.8		11	J	20.7		37		21		15.9	J	26.3		26.3		16.9		27.6	
Metals	Zinc	7440-66-6	mg/kg	43	J	21.1	J	27.2	J	49.2	J	30.4	J	23.8	J	36.2	J	37.2	J	26.2	J	33.5	J
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-216		B-216		B-216		B-217		B-217		B-217		B-217		B-218		B-218		B-218	
				Field Sample ID	B216s2		B216s3		B216s4		B217s1		B217s2		B217s3		B217s4		B218s1		B218s2		B218s3	
				Sample Start Depth	4		7		11		0		4		7		11		0		4		7	
				Sample End Depth	7		11		13		3		7		11		15		3		7		11	
				Sample Date	11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																					
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																					
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																					
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																					
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																					
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																					
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																					
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																					
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																					
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																					
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																					
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																					
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																					
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																					
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																					
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																					
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																					
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																					
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																					
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																					
VOCs	1,4-Dioxane	123-91-1	mg/kg																					
VOCs	1-Chlorohexane	544-10-5	mg/kg																					
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																					
VOCs	2-Chlorotoluene	95-49-8	mg/kg																					
VOCs	2-Hexanone	591-78-6	mg/kg																					
VOCs	4-Chlorotoluene	106-43-4	mg/kg																					
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																					
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																					
VOCs	Acetone	67-64-1	mg/kg																					
VOCs	Benzene	71-43-2	mg/kg																					
VOCs	Bromobenzene	108-86-1	mg/kg																					
VOCs	Bromoform	75-25-2	mg/kg																					
VOCs	Bromomethane	74-83-9	mg/kg																					
VOCs	Carbon disulfide	75-15-0	mg/kg																					
VOCs	Carbon tetrachloride	56-23-5	mg/kg																					
VOCs	Chlorobenzene	108-90-7	mg/kg																					
VOCs	Chlorobromomethane	74-97-5	mg/kg																					
VOCs	Chlorodibromomethane	124-48-1	mg/kg																					
VOCs	Chloroethane	75-00-3	mg/kg																					
VOCs	Chloroform	67-66-3	mg/kg																					
VOCs	Chloromethane	74-87-3	mg/kg																					
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																					
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																					
VOCs	Dibromomethane	74-95-3	mg/kg																					
VOCs	Dichlorobromomethane	75-27-4	mg/kg																					
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																					
VOCs	DIETHYL ETHER	60-29-7	mg/kg																					
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																					
VOCs	Ethylbenzene	100-41-4	mg/kg																					
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																					
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																					
VOCs	Hexanal	0066-25-1	mg/kg																					
VOCs	Isopropylbenzene	98-82-8	mg/kg																					
VOCs	m&p-Xylenes	NA	mg/kg																					
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																					
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																					
VOCs	Methylene Chloride	75-09-2	mg/kg																					
VOCs	n-Butylbenzene	104-51-8	mg/kg																					
VOCs	N-Propylbenzene	103-65-1	mg/kg																					
VOCs	Naphthalene	91-20-3	mg/kg																					
VOCs	o-Xylene	95-47-6	mg/kg																					
VOCs	sec-Butylbenzene	135-98-8	mg/kg																					
VOCs	Styrene	100-42-5	mg/kg																					
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																					
VOCs	tert-Butylbenzene	98-06-6	mg/kg																					
VOCs	Tetrachloroethene	127-18-4	mg/kg																					
VOCs	Tetrahydrofuran	109-99-9	mg/kg																					
VOCs	Toluene	108-88-3	mg/kg																					
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																					
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																					
VOCs	Trichloroethene	79-01-6	mg/kg																					
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																					
VOCs	Vinyl chloride	75-01-4	mg/kg																					
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																					
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																					
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																					
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																					
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																					
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																					
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																					
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																					
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																					
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																					
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																					
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																					
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																					
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																					
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																					
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																					

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-216		B-216		B-216		B-217		B-217		B-217		B-217		B-218		B-218		B-218	
				Field Sample ID	B216s2		B216s3		B216s4		B217s1		B217s2		B217s3		B217s4		B218s1		B218s2		B218s3	
				Sample Start Depth	4		7		11		0		4		7		11		0		4		7	
				Sample End Depth	7		11		13		3		7		11		15		3		7		11	
				Sample Date	11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																					
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																					
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																					
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																					
SVOCs	3-NITROANILINE	99-09-2	mg/kg																					
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																					
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																					
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																					
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																					
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																					
SVOCs	4-NITROANILINE	100-01-6	mg/kg																					
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																					
SVOCs	Acenaphthene	83-32-9	mg/kg																					
SVOCs	Acenaphthylene	208-96-8	mg/kg																					
SVOCs	Acetophenone	98-86-2	mg/kg																					
SVOCs	Aniline	62-53-3	mg/kg																					
SVOCs	Anthracene	120-12-7	mg/kg																					
SVOCs	Azobenzene	103-33-3	mg/kg																					
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																					
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																					
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																					
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																					
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																					
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																					
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																					
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																					
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																					
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																					
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																					
SVOCs	CARBAZOLE	86-74-8	mg/kg																					
SVOCs	Chrysene	218-01-9	mg/kg																					
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																					
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																					
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																					
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																					
SVOCs	Diethyl phthalate	84-66-2	mg/kg																					
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																					
SVOCs	Fluoranthene	206-44-0	mg/kg																					
SVOCs	Fluorene	86-73-7	mg/kg																					
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																					
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																					
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																					
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																					
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																					
SVOCs	ISOPHORONE	78-59-1	mg/kg																					
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																					
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																					
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																					
SVOCs	Naphthalene	91-20-3	mg/kg																					
SVOCs	NITROBENZENE	98-95-3	mg/kg																					
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																					
SVOCs	Phenanthrene	85-01-8	mg/kg																					
SVOCs	PHENOL	108-95-2	mg/kg																					
SVOCs	Pyrene	129-00-0	mg/kg																					
PCBs	Aroclor 1016	12674-11-2	mg/kg																					
PCBs	Aroclor 1221	11104-28-2	mg/kg																					
PCBs	Aroclor 1232	11141-16-5	mg/kg																					
PCBs	Aroclor 1242	53469-21-9	mg/kg																					
PCBs	Aroclor 1248	12672-29-6	mg/kg																					
PCBs	Aroclor 1254	11097-69-1	mg/kg																					
PCBs	Aroclor 1260	11096-82-5	mg/kg																					
PCBs	PCB-1262	37324-23-5	mg/kg																					
PCBs	PCB-1268	11100-14-4	mg/kg																					
EPH	2-Methylnaphthalene	91-57-6	mg/kg		0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Acenaphthene	83-32-9	mg/kg		0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Acenaphthylene	208-96-8	mg/kg		0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Anthracene	120-12-7	mg/kg		0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg		0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg		0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg		0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg		0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg		0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	C11-C22 Aromatics	NA	mg/kg		5.8		3.8	U	3.6	U	3.8	U	4		3.8	U	3.8	U	6.3		3.7		3.7	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg		5.8		3.8	U	3.6	U	3.8	U	4		3.8	U	3.8	U	6.3		3.7		3.7	U
EPH	C19-C36 Aliphatics	NA	mg/kg		9.7		3.8	U	3.6	U	3.8	U	3.7	U	3.8	U	3.8	U	4		3.4	U	3.8	
EPH	C9-C18 Aliphatics	NA	mg/kg		3.7	U	3.8	U	3.6	U	3.8	U	3.7	U	3.8	U	3.8	U	3.8	U	3.4	U	3.7	U
EPH	Chrysene	218-01-9	mg/kg		0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg		0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Fluoranthene	206-44-0	mg/kg		0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Fluorene	86-73-7	mg/kg		0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg		0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Naphthalene	91-20-3	mg/kg		0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Phenanthrene	85-01-8	mg/kg		0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Pyrene	129-00-0	mg/kg		0.37	U	0.38	U	0.36	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.34	U	0.37	U
EPH	Total EPH	NA	mg/kg		15		3.8	U	3.6	U	3.8	U	4		3.8	U	3.8	U	10		3.7		3.8	
VPH	Benzene	71-43-2	mg/kg																					
VPH	C5-C8 Aliphatics	NA	mg/kg																					
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																					
VPH	C9-C10 Aromatics	NA	mg/kg																					

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-216		B-216		B-216		B-217		B-217		B-217		B-217		B-218		B-218		B-218	
			Field Sample ID	B216s2		B216s3		B216s4		B217s1		B217s2		B217s3		B217s4		B218s1		B218s2		B218s3	
			Sample Start Depth	4		7		11		0		4		7		11		0		4		7	
			Sample End Depth	7		11		13		3		7		11		15		3		7		11	
			Sample Date	11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005		11/11/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	14,700		8,780		5,810	J	12,100		17,200		16,800		14,800	J	14,200		4,850		17,600	
Metals	Antimony	7440-36-0	mg/kg	1.1	UJ	1.1	UJ	1.2	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.1	UJ	1.2	UJ	1	UJ	0.4	J
Metals	Arsenic	7440-38-2	mg/kg	33.5		51.6		25.6	J	27.3		42.8		30.1		111	J	60.9		17.4		35.1	
Metals	Barium	7440-39-3	mg/kg	49.1		42		27.7	J	47.1		73.3		74.7		106	J	48		17.2	B	99.2	
Metals	Beryllium	7440-41-7	mg/kg	0.58		0.37	B	0.33	B	0.51		0.59		0.61		0.69		0.53		0.27	B	0.7	
Metals	Cadmium	7440-43-9	mg/kg	0.57	U	0.53	U	0.59	U	0.56	U	0.57	U	0.57	U	0.57	U	0.58	U	0.52	U	0.59	U
Metals	Calcium	7440-70-2	mg/kg	724		1,590		1,610		900		2,000		1,670		2,150		1,420		1,830		1,860	
Metals	Chromium	7440-47-3	mg/kg	116		317		36.3		52.9	J	197		171		532		156	J	29.5		83.9	
Metals	Cobalt	7440-48-4	mg/kg	9		6.8		4.6	J	7.3		13.6		9.3		10.3	J	8.5		4.3	B	12	
Metals	Copper	7440-50-8	mg/kg	104	J	361	J	98.7		22.2	J	444	J	373	J	757		56.7	J	13.3	J	86.4	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	6.2	J	22.9	J	3.1	J	2.7	J	10.4	J	6.8	J	41.3	J	2.7	J	0.42	UJ	8.2	J
Metals	Iron	7439-89-6	mg/kg	18,500		13,200		9,370		15,400		24,500		22,900		20,800		18,500		9,190		24,800	
Metals	Lead	7439-92-1	mg/kg	8.1		10.1		5.5		16.2		9.9		7.6		12.3		17.9		5.9		9.2	
Metals	Magnesium	7439-95-4	mg/kg	7,650		6,260		3,830	J	6,320		10,500		9,620		7,960	J	7,390		3,140		10,800	
Metals	Manganese	7439-96-5	mg/kg	261		243		191	J	255	J	425		206		501	J	275	J	142		644	
Metals	Mercury	7439-97-6	mg/kg	0.037	U	0.035	U	0.039	U	0.024	B	0.038	U	0.037	U	0.038	U	0.014	B	0.034	U	0.039	U
Metals	Nickel	7440-02-0	mg/kg	36.6		34.7		18.7	J	29		49.6		42		62.6	J	35.5		16.8		50.2	
Metals	Potassium	7440-09-7	mg/kg	2,780	J	1,930	J	1,250	J	1,380	J	5,080	J	5,190	J	3,270	J	2,050	J	995	J	6,140	J
Metals	Selenium	7782-49-2	mg/kg	0.57	U	0.53	U	0.59	U	0.56	U	0.53	B	0.39	B	0.57	U	0.37	B	0.31	B	0.51	B
Metals	Silver	7440-22-4	mg/kg	0.57	U	0.53	U	0.59	U	0.56	U	0.57	U	0.068	B	0.57	U	0.22	B	0.52	U	0.11	B
Metals	Sodium	7440-23-5	mg/kg	45.9	B	45	B	77.5	B	87.9	B	65.5	B	61	B	86.9	B	25	B	19.4	B	593	U
Metals	Thallium	7440-28-0	mg/kg	0.52	B	1.1	U	1.2	U	1.1	U	1.1	U	0.61	B	0.66	B	1.2	U	1	U	0.55	B
Metals	Vanadium	7440-62-2	mg/kg	27.1		15		11.4	J	23.7		39.7		36.5		24.4	J	31.3		11.9		40.8	
Metals	Zinc	7440-66-6	mg/kg	37.2	J	33.6	J	17.8	J	48.6	J	49.9	J	48.4	J	51.9	J	38.3	J	21.8	J	53.1	J
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-218		B-219		B-219		B-219		B-21B		B-21B		B-22		B-22		B-220		B-220	
			Field Sample ID	B218s4		B219s1		B219s2		B219s3		C062204-B21B-14-14.5		C062204-B21B-8-10		C062204-B22-2-3		C062204-B22-9-10		B220s1		B220s2	
			Sample Start Depth	11		0		4		7		14		8		2		9		0		4	
			Sample End Depth	15		3		7		11		14.5		10		3		10		3		7	
			Sample Date	11/11/2005		11/11/2005		11/11/2005		11/11/2005		6/22/2004		6/22/2004		6/22/2004		6/22/2004		11/11/2005		11/11/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg									0.0024	U	0.0064		0.0031	U	0.0026	U				
VOCs	1,4-Dioxane	123-91-1	mg/kg									0.24	U	0.23	U	0.31	U	0.26	U				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	2-Chlorotoluene	95-49-8	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	2-Hexanone	591-78-6	mg/kg									0.019	U	0.018	U	0.025	U	0.021	U				
VOCs	4-Chlorotoluene	106-43-4	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg									0.019	U	0.018	U	0.025	U	0.021	U				
VOCs	Acetone	67-64-1	mg/kg									0.048	U	0.046	U	0.071		0.052	U				
VOCs	Benzene	71-43-2	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Bromobenzene	108-86-1	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Bromoform	75-25-2	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Bromomethane	74-83-9	mg/kg									0.0048	U	0.0046	U	0.0063	U	0.0052	U				
VOCs	Carbon disulfide	75-15-0	mg/kg									0.048	U	0.046	U	0.063	U	0.052	U				
VOCs	Carbon tetrachloride	56-23-5	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Chlorobenzene	108-90-7	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Chlorobromomethane	74-97-5	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Chlorodibromomethane	124-48-1	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Chloroethane	75-00-3	mg/kg									0.0048	U	0.0046	U	0.0063	U	0.0052	U				
VOCs	Chloroform	67-66-3	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Chloromethane	74-87-3	mg/kg									0.0048	U	0.0046	U	0.0063	U	0.0052	U				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Dibromomethane	74-95-3	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Dichlorobromomethane	75-27-4	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	DIETHYL ETHER	60-29-7	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Ethylbenzene	100-41-4	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	m&p-Xylenes	NA	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg									0.019	U	0.018	U	0.025	U	0.021	U				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg									0.0048	U	0.0046	U	0.0063	U	0.0052	U				
VOCs	Methylene Chloride	75-09-2	mg/kg									0.0048	U	0.0046	U	0.0063	U	0.0052	U				
VOCs	n-Butylbenzene	104-51-8	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	N-Propylbenzene	103-65-1	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Naphthalene	91-20-3	mg/kg									0.024	U	0.023	U	0.031	U	0.026	U				
VOCs	o-Xylene	95-47-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	sec-Butylbenzene	135-98-8	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Styrene	100-42-5	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	tert-Butylbenzene	98-06-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Tetrachloroethene	127-18-4	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Tetrahydrofuran	109-99-9	mg/kg									0.0048	U	0.0046	U	0.0063	U	0.0052	U				
VOCs	Toluene	108-88-3	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Trichloroethene	79-01-6	mg/kg									0.0024	U	0.0023	U	0.021		0.0026	U				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg									0.0024	U	0.0023	U	0.0031	U	0.0026	U				
VOCs	Vinyl chloride	75-01-4	mg/kg									0.0048	U	0.0046	U	0.0063	U	0.0052	U				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg											0.38	U	0.4	U						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg											0.38	U	0.4	U						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg											0.38	U	0.4	U						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg											0.38	U	0.4	U						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg											0.38	U	0.4	U						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg											0.38	U	0.4	U						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg											0.38	U	0.4	U						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg											0.38	U	0.4	U						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg											0.38	U	0.4	U						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg											0.38	U	0.4	U						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg											0.38	U	0.4	U						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg											0.38	U	0.4	U						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg											0.38	U	0.4	U						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg											2.4		0.2	U						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg											0.38	U	0.4	U						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-218		B-219		B-219		B-219		B-21B		B-21B		B-22		B-22		B-220		B-220	
			Field Sample ID	B218s4		B219s1		B219s2		B219s3		C062204-B21B-14-14.5		C062204-B21B-8-10		C062204-B22-2-3		C062204-B22-9-10		B220s1		B220s2	
			Sample Start Depth	11		0		4		7		14		8		2		9		0		4	
			Sample End Depth	15		3		7		11		14.5		10		3		10		3		7	
			Sample Date	11/11/2005		11/11/2005		11/11/2005		11/11/2005		6/22/2004		6/22/2004		6/22/2004		6/22/2004		11/11/2005		11/11/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg											0.38	U	0.4	U						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg											0.38	U	0.4	U						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg											0.76	U	0.8	U						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg											0.38	U	0.4	U						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg											0.76	U	0.8	U						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg											1.9	U	2	U						
SVOCs	Acenaphthene	83-32-9	mg/kg											2.3		0.2	U						
SVOCs	Acenaphthylene	208-96-8	mg/kg											0.5		0.2	U						
SVOCs	Acetophenone	98-86-2	mg/kg											0.38	U	0.4	U						
SVOCs	Aniline	62-53-3	mg/kg											1.9	U	2	U						
SVOCs	Anthracene	120-12-7	mg/kg											1.5		0.2	U						
SVOCs	Azobenzene	103-33-3	mg/kg											0.38	U	0.4	U						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg											1.1		0.2	U						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg											0.75		0.2	U						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg											0.35		0.2	U						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg											0.5		0.2	U						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg											0.56		0.2	U						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg											0.38	U	0.4	U						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg											0.38	U	0.4	U						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg											0.38	U	0.4	U						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg											0.38	U	0.4	U						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg											0.38	U	0.4	U						
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg											0.95		0.2	U						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg											0.38	U	0.4	U						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg											0.38	U	0.4	U						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg											0.19	J	0.2	U						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg											0.28	J	0.4	U						
SVOCs	Diethyl phthalate	84-66-2	mg/kg											0.38	U	0.4	U						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg											0.38	U	0.4	U						
SVOCs	Fluoranthene	206-44-0	mg/kg											1.8		0.15	J						
SVOCs	Fluorene	86-73-7	mg/kg											1.4		0.2	U						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg											0.38	U	0.4	U						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg											0.38	U	0.4	U						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg											0.38	U	0.4	U						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg											0.35		0.2	U						
SVOCs	ISOPHORONE	78-59-1	mg/kg											0.38	U	0.4	U						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg											2.9		0.2	U						
SVOCs	NITROBENZENE	98-95-3	mg/kg											0.38	U	0.4	U						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg											1.9	U	2	U						
SVOCs	Phenanthrene	85-01-8	mg/kg											4.9		0.2	U						
SVOCs	PHENOL	108-95-2	mg/kg											0.38	U	0.4	U						
SVOCs	Pyrene	129-00-0	mg/kg											2.8		0.18	J						
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Acenaphthene	83-32-9	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Anthracene	120-12-7	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.7	U	6.8		3.7	U	3.6	U			5.7		10				3.6	U	3.9	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	3.7	U	6.8		3.7	U	3.6	U									3.6	U	3.9	U
EPH	C19-C36 Aliphatics	NA	mg/kg	3.7	U	9.1		3.7	U	3.6	U			3.7	U	6				3.6	U	3.9	U
EPH	C9-C18 Aliphatics	NA	mg/kg	3.7	U	3.9	U	3.7	U	3.6	U			3.7	U	3.9	U			3.6	U	3.9	U
EPH	Chrysene	218-01-9	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Fluoranthene	206-44-0	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Fluorene	86-73-7	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Naphthalene	91-20-3	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Phenanthrene	85-01-8	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Pyrene	129-00-0	mg/kg	0.37	U	0.39	U	0.37	U	0.36	U									0.36	U	0.39	U
EPH	Total EPH	NA	mg/kg	3.7	U	16		3.7	U	3.6	U			5.7		16				3.6	U	3.9	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-218		B-219		B-219		B-219		B-21B		B-21B		B-22		B-22		B-220		B-220	
			Field Sample ID	B218s4		B219s1		B219s2		B219s3		C062204-B21B-14-14.5		C062204-B21B-8-10		C062204-B22-2-3		C062204-B22-9-10		B220s1		B220s2	
			Sample Start Depth	11		0		4		7		14		8		2		9		0		4	
			Sample End Depth	15		3		7		11		14.5		10		3		10		3		7	
			Sample Date	11/11/2005		11/11/2005		11/11/2005		11/11/2005		6/22/2004		6/22/2004		6/22/2004		6/22/2004		11/11/2005		11/11/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	9,410	J	10,600		11,100		12,000				12,000		15,000				11,200		15,800	
Metals	Antimony	7440-36-0	mg/kg	1.1	UJ	1.1	UJ	1.1	UJ	0.41	J			2.4	U	2.4	U			1.1	UJ	1.1	UJ
Metals	Arsenic	7440-38-2	mg/kg	40.8	J	25.2		41.4		36.6				20		25				24.1		22.4	
Metals	Barium	7440-39-3	mg/kg	51.2	J	37.7		34.6		55.8				53		74				44.9		66.4	
Metals	Beryllium	7440-41-7	mg/kg	0.46		0.47		0.38	B	0.46				0.33		0.43				0.47		0.61	
Metals	Cadmium	7440-43-9	mg/kg	0.55	U	0.55	U	0.56	U	0.55	U			0.24	U	0.24	U			0.56	U	0.57	U
Metals	Calcium	7440-70-2	mg/kg	2,090		1,090		822		838				1,600		1,900				1,160		1,390	
Metals	Chromium	7440-47-3	mg/kg	307		47.9	J	735		1040				41		95				40.2	J	38.8	
Metals	Cobalt	7440-48-4	mg/kg	6.9	J	5.9		6.4		8.8				7.9		8.9				6.3		10	
Metals	Copper	7440-50-8	mg/kg	343		19.7	J	55.5	J	140	J			14		42				11.7	J	16.5	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	48.7	J	0.44	UJ	42.6	J	82.8	J			0.54		2.2	U			0.45	UJ	0.46	UJ
Metals	Iron	7439-89-6	mg/kg	15,700		12,900		16,600		18,000				17,000		20,000				14,900		19,300	
Metals	Lead	7439-92-1	mg/kg	9.5		23.5		20.5		26.8				6.3		96				5.9		6.9	
Metals	Magnesium	7439-95-4	mg/kg	6,530	J	4,510		5,890		6,520				6,600		8,200				5,980		8,090	
Metals	Manganese	7439-96-5	mg/kg	330	J	194	J	201		411				400		260				240	J	276	
Metals	Mercury	7439-97-6	mg/kg	0.036	U	0.11		0.037	U	0.036	U			0.094	U	0.16				0.011	B	0.038	U
Metals	Nickel	7440-02-0	mg/kg	33	J	23.6		29.2		29.3				35		37				27.8		36.6	
Metals	Potassium	7440-09-7	mg/kg	3,250	J	1,010	J	1,370	J	2,700	J			3,100		1,900				1,680	J	2,780	J
Metals	Selenium	7782-49-2	mg/kg	0.55	U	0.38	B	0.56	U	0.55	U			1.2	U	1.2	U			0.56	U	0.31	B
Metals	Silver	7440-22-4	mg/kg	0.55	U	0.11	B	0.034	B	0.55	U			1.2	U	1.2	U			0.56	U	0.57	U
Metals	Sodium	7440-23-5	mg/kg	51.2	B	553	U	556	U	23.3	B			190		150				24.6	B	45	B
Metals	Thallium	7440-28-0	mg/kg	0.74	B	1.1	U	1.1	U	0.6	B			1.2	U	1.2	U			1.1	U	1.1	U
Metals	Vanadium	7440-62-2	mg/kg	19.4	J	19.1		22.5		20.9				23		32				22.1		35.6	
Metals	Zinc	7440-66-6	mg/kg	35.5	J	36.9	J	29.6	J	35.3	J			38		89				28.1	J	39.8	J
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg											0.04	J								
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg											0.02	J								
TIC	1-Methyl-Pyrene	NA	mg/kg											0.03	J								
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg											0.02	J								
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg											0.02	J								
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg											0.02	J								
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg											0.02	J								
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-220		B-220		B-225		B-226		B-227		B-228		B-229		B-230		B-231		B-232	
			Field Sample ID	B220s3		B220s4		C012407-B225		C012407-B226		C012407-B227		C012407-B228		C012407-B229		C012407-B230		C012407-B231		C042407-B232 S1	
			Sample Start Depth	7		11		0		0		0		0		0		0		0		4	
			Sample End Depth	11		15		5		12		12		12		12		12		5		6	
			Sample Date	11/11/2005		11/11/2005		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		4/24/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																			0.13	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																			0.13	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																			0.13	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																			0.13	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																			0.13	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																			0.13	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																			0.13	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																			0.13	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																			0.13	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																			0.13	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																			0.29	
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																			0.13	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																			0.13	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																			0.13	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																			0.13	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																			0.13	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																			0.16	
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																			0.13	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																			0.13	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																			0.13	U
VOCs	1,4-Dioxane	123-91-1	mg/kg																			13	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																			0.13	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg																			0.13	U
VOCs	2-Hexanone	591-78-6	mg/kg																			1	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg																			0.13	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																			0.13	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																			1	U
VOCs	Acetone	67-64-1	mg/kg																			13	U
VOCs	Benzene	71-43-2	mg/kg																			0.13	U
VOCs	Bromobenzene	108-86-1	mg/kg																			0.13	U
VOCs	Bromoform	75-25-2	mg/kg																			0.13	U
VOCs	Bromomethane	74-83-9	mg/kg																			0.25	U
VOCs	Carbon disulfide	75-15-0	mg/kg																			0.13	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg																			0.13	U
VOCs	Chlorobenzene	108-90-7	mg/kg																			0.13	U
VOCs	Chlorobromomethane	74-97-5	mg/kg																			0.13	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg																			0.13	U
VOCs	Chloroethane	75-00-3	mg/kg																			0.25	U
VOCs	Chloroform	67-66-3	mg/kg																			0.13	U
VOCs	Chloromethane	74-87-3	mg/kg																			0.25	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																			0.31	
VOCs	Chloroform	67-66-3	mg/kg																			0.13	U
VOCs	Chloromethane	74-87-3	mg/kg																			0.25	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																			0.31	
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																			0.13	U
VOCs	Dibromomethane	74-95-3	mg/kg																			0.13	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg																			0.13	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																			0.25	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg																			0.13	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																			0.13	U
VOCs	Ethylbenzene	100-41-4	mg/kg																			290	
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																			0.13	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																			0.13	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																			1.7	
VOCs	m&p-Xylenes	NA	mg/kg																			1,400	
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																			1	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																			0.13	U
VOCs	Methylene Chloride	75-09-2	mg/kg																			0.25	U
VOCs	n-Butylbenzene	104-51-8	mg/kg																			0.067	J
VOCs	N-Propylbenzene	103-65-1	mg/kg																			0.51	
VOCs	Naphthalene	91-20-3	mg/kg																			0.24	J
VOCs	o-Xylene	95-47-6	mg/kg																			310	
VOCs	sec-Butylbenzene	135-98-8	mg/kg																			0.13	U
VOCs	Styrene	100-42-5	mg/kg																			0.13	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																			0.13	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg																			0.13	U
VOCs	Tetrachloroethene	127-18-4	mg/kg																			0.12	J
VOCs	Tetrahydrofuran	109-99-9	mg/kg																			1	U
VOCs	Toluene	108-88-3	mg/kg																			130	
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																			0.13	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																			0.13	U
VOCs	Trichloroethene	79-01-6	mg/kg																			23	
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																			0.13	U
VOCs	Vinyl chloride	75-01-4	mg/kg																			0.25	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-220		B-220		B-225		B-226		B-227		B-228		B-229		B-230		B-231		B-232	
			Field Sample ID	B220s3		B220s4		C012407-B225		C012407-B226		C012407-B227		C012407-B228		C012407-B229		C012407-B230		C012407-B231		C042407-B232 S1	
			Sample Start Depth	7		11		0		0		0		0		0		0		0		4	
			Sample End Depth	11		15		5		12		12		12		12		12		5		6	
			Sample Date	11/11/2005		11/11/2005		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		4/24/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
PCBs	Aroclor 1221	11104-28-2	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
PCBs	Aroclor 1232	11141-16-5	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
PCBs	Aroclor 1242	53469-21-9	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
PCBs	Aroclor 1248	12672-29-6	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
PCBs	Aroclor 1254	11097-69-1	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
PCBs	Aroclor 1260	11096-82-5	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
PCBs	PCB-1262	37324-23-5	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
PCBs	PCB-1268	11100-14-4	mg/kg					0.11	U	0.11	U	0.11	U	0.1	U	0.11	U	0.11	U	0.11	U		
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.38	U	0.38	U																
EPH	Acenaphthene	83-32-9	mg/kg	0.38	U	0.38	U																
EPH	Acenaphthylene	208-96-8	mg/kg	0.38	U	0.38	U																
EPH	Anthracene	120-12-7	mg/kg	0.38	U	0.38	U																
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.38	U	0.38	U																
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.38	U	0.38	U																
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.38	U	0.38	U																
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.38	U	0.38	U																
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.38	U	0.38	U																
EPH	C11-C22 Aromatics	NA	mg/kg	4.8		5.5																	
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	4.8		5.5																	
EPH	C19-C36 Aliphatics	NA	mg/kg	6.6		9.3																	
EPH	C9-C18 Aliphatics	NA	mg/kg	4.1		3.8	U																
EPH	Chrysene	218-01-9	mg/kg	0.38	U	0.38	U																
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.38	U	0.38	U																
EPH	Fluoranthene	206-44-0	mg/kg	0.38	U	0.38	U																
EPH	Fluorene	86-73-7	mg/kg	0.38	U	0.38	U																
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.38	U	0.38	U																
EPH	Naphthalene	91-20-3	mg/kg	0.38	U	0.38	U																
EPH	Phenanthrene	85-01-8	mg/kg	0.38	U	0.38	U																
EPH	Pyrene	129-00-0	mg/kg	0.38	U	0.38	U																
EPH	Total EPH	NA	mg/kg	15		15																	
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-220		B-220		B-225		B-226		B-227		B-228		B-229		B-230		B-231		B-232	
				Field Sample ID	B220s3		B220s4		C012407-B225		C012407-B226		C012407-B227		C012407-B228		C012407-B229		C012407-B230		C012407-B231		C042407-B232 S1	
				Sample Start Depth	7		11		0		0		0		0		0		0		0		4	
				Sample End Depth	11		15		5		12		12		12		12		12		5		6	
				Sample Date	11/11/2005		11/11/2005		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		1/24/2007		4/24/2007	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	10,600		10,400	J																
Metals	Antimony	7440-36-0	mg/kg	1.1	UJ	1.2	UJ																
Metals	Arsenic	7440-38-2	mg/kg	22.5		11.6	J																
Metals	Barium	7440-39-3	mg/kg	43.6		41.5	J																
Metals	Beryllium	7440-41-7	mg/kg	0.49		0.58																	
Metals	Cadmium	7440-43-9	mg/kg	0.57	U	0.59	U																
Metals	Calcium	7440-70-2	mg/kg	1,190		1,390																	
Metals	Chromium	7440-47-3	mg/kg	27.5		22.9																	
Metals	Cobalt	7440-48-4	mg/kg	6.3		5.5	J																
Metals	Copper	7440-50-8	mg/kg	12.5	J	12																	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.46	UJ	0.47	UJ																
Metals	Iron	7439-89-6	mg/kg	14,000		13,300																	
Metals	Lead	7439-92-1	mg/kg	5.7		5.3																	
Metals	Magnesium	7439-95-4	mg/kg	5,130		4,450	J																
Metals	Manganese	7439-96-5	mg/kg	249		223	J																
Metals	Mercury	7439-97-6	mg/kg	0.038	U	0.039	U																
Metals	Nickel	7440-02-0	mg/kg	28.4		25	J																
Metals	Potassium	7440-09-7	mg/kg	1,740	J	1,550	J																
Metals	Selenium	7782-49-2	mg/kg	0.57	U	0.37	B																
Metals	Silver	7440-22-4	mg/kg	0.57	U	0.59	U																
Metals	Sodium	7440-23-5	mg/kg	42.9	B	61.6	B																
Metals	Thallium	7440-28-0	mg/kg	1.1	U	1.2	U																
Metals	Vanadium	7440-62-2	mg/kg	19.2		16.2	J																
Metals	Zinc	7440-66-6	mg/kg	30.1	J	29.9	J																
Cyanide	Cyanide, Reactive	NA	mg/kg					58	U	58	U	57	U	56	U	57	U	56	U	56	U		
Other	Sulfide, Reactive	NA	mg/kg					120	U	120	U	110	U	110	U	110	U	110	U	110	U		
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																			3.4	JN
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																			1.7	JN
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																			3	JN
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																			1.1	JN
TIC	Pentane, 3-methyl-	NA	mg/kg																			1.6	JN
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-232		B-232		B-232		B-233		B-233		B-233		B-233		B-234		B-235		B-236	
			Field Sample ID	C042407-B232 S2		C042407-B232 S3		C042407-B232 S4		C042407-B233 S1		C042407-B233 S2		C042407-B233 S3		C042407-B233 S4		C042407-B234		C042407-B235		C042407-B236	
			Sample Start Depth	6		8		10		4		6		8		10		0		0		0	
			Sample End Depth	8		10		12		6		8		10		12		4		4		4	
			Sample Date	4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.13	U	0.6		0.11	U	0.39		0.12	U	0.11	U	1.4							
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.17		0.12	U	0.13		0.11	U	0.12	U	0.11	U	0.066	J						
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.094	J	0.12	U	0.081	J	0.11	U	0.12	U	0.11	U	0.052	J						
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	1,4-Dioxane	123-91-1	mg/kg	13	U	12	U	11	U	11	U	12	U	11	U	12	U						
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	2-Hexanone	591-78-6	mg/kg	1	U	0.94	U	0.87	U	0.92	U	0.97	U	0.9	U	0.96	U						
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	1	U	0.94	U	0.87	U	0.92	U	0.97	U	0.9	U	0.96	U						
VOCs	Acetone	67-64-1	mg/kg	13	U	12	UJ	11	U	11	UJ	12	U	11	U	12	UJ						
VOCs	Benzene	71-43-2	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Bromobenzene	108-86-1	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Bromoform	75-25-2	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Bromomethane	74-83-9	mg/kg	0.25	U	0.24	U	0.22	U	0.23	U	0.24	U	0.23	U	0.24	U						
VOCs	Carbon disulfide	75-15-0	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Chlorobenzene	108-90-7	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Chloroethane	75-00-3	mg/kg	0.25	U	0.24	U	0.22	U	0.23	U	0.24	U	0.23	U	0.24	U						
VOCs	Chloroform	67-66-3	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Chloromethane	74-87-3	mg/kg	0.25	U	0.24	U	0.22	U	0.23	U	0.24	U	0.23	U	0.24	U						
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.69		0.057	J	0.07	J	0.11	U	0.12	U	4.3		0.12	U						
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Dibromomethane	74-95-3	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.25	U	0.24	U	0.22	U	0.23	U	0.24	U	0.23	U	0.24	U						
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Ethylbenzene	100-41-4	mg/kg	83		1.3		130		0.11	U	4.3		9.1		6.9							
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.53		0.12	U	0.86		0.11	U	0.12	J	0.11	U	0.3							
VOCs	m&p-Xylenes	NA	mg/kg	430		6		630		0.16		29		43		31							
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	1	U	0.94	U	0.87	U	0.92	U	0.97	U	0.9	U	0.96	U						
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Methylene Chloride	75-09-2	mg/kg	0.25	U	0.24	U	0.22	U	0.23	U	0.24	U	0.23	U	0.24	U						
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.17		0.12	U	0.28		0.11	U	0.054	J	0.11	U	0.12							
VOCs	Naphthalene	91-20-3	mg/kg	1.3	U	1.2	U	1.1	U	1.1	U	1.2	U	1.1	U	1.2	U						
VOCs	o-Xylene	95-47-6	mg/kg	96		1.2		150		0.11	U	4.5		10		5.9							
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Styrene	100-42-5	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.13	U	0.12	U	0.047	J	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Tetrahydrofuran	109-99-9	mg/kg	1	U	0.94	U	0.87	U	0.92	U	0.97	U	0.9	U	0.96	U						
VOCs	Toluene	108-88-3	mg/kg	47		0.76		40		0.11	U	0.2		2.8		0.59							
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Trichloroethene	79-01-6	mg/kg	14		0.12	U	5.1		0.11	U	0.077	J	1.2		0.085	J						
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.13	U	0.12	U	0.11	U	0.11	U	0.12	U	0.11	U	0.12	U						
VOCs	Vinyl chloride	75-01-4	mg/kg	0.25	U	0.24	U	0.22	U	0.23	U	0.24	U	0.086	J	0.24	U						
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-232		B-232		B-232		B-233		B-233		B-233		B-233		B-234		B-235		B-236	
			Field Sample ID	C042407-B232 S2		C042407-B232 S3		C042407-B232 S4		C042407-B233 S1		C042407-B233 S2		C042407-B233 S3		C042407-B233 S4		C042407-B234		C042407-B235		C042407-B236	
			Sample Start Depth	6		8		10		4		6		8		10		0		0		0	
			Sample End Depth	8		10		12		6		8		10		12		4		4		4	
			Sample Date	4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-232		B-232		B-232		B-233		B-233		B-233		B-233		B-234		B-235		B-236	
			Field Sample ID	C042407-B232 S2		C042407-B232 S3		C042407-B232 S4		C042407-B233 S1		C042407-B233 S2		C042407-B233 S3		C042407-B233 S4		C042407-B234		C042407-B235		C042407-B236	
			Sample Start Depth	6		8		10		4		6		8		10		0		0		0	
			Sample End Depth	8		10		12		6		8		10		12		4		4		4	
			Sample Date	4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007		4/24/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg															51,000		18,000		12,000	
Metals	Antimony	7440-36-0	mg/kg															4.7	J	2.6		1.8	
Metals	Arsenic	7440-38-2	mg/kg															28		26		23	
Metals	Barium	7440-39-3	mg/kg															230		99		62	
Metals	Beryllium	7440-41-7	mg/kg															4.5	U	0.24	U	0.24	U
Metals	Cadmium	7440-43-9	mg/kg															0.95	J	0.43		0.33	
Metals	Calcium	7440-70-2	mg/kg															4,700		3,400		14,000	
Metals	Chromium	7440-47-3	mg/kg															130		140		74	
Metals	Cobalt	7440-48-4	mg/kg															35		13		9.1	
Metals	Copper	7440-50-8	mg/kg															150		91		43	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg															0.97	U	11		2.7	
Metals	Iron	7439-89-6	mg/kg															70,000		24,000		18,000	
Metals	Lead	7439-92-1	mg/kg															9.4	J	51		9.1	
Metals	Magnesium	7439-95-4	mg/kg															32,000		13,000		8,000	
Metals	Manganese	7439-96-5	mg/kg															540		360		300	
Metals	Mercury	7439-97-6	mg/kg															0.082	U	0.04	J	0.07	U
Metals	Nickel	7440-02-0	mg/kg															110		44		33	
Metals	Potassium	7440-09-7	mg/kg															28,000		6,300		4,300	
Metals	Selenium	7782-49-2	mg/kg															11	U	0.59	U	0.61	U
Metals	Silver	7440-22-4	mg/kg															11	U	5.3		0.96	
Metals	Sodium	7440-23-5	mg/kg															290	J	210		130	
Metals	Thallium	7440-28-0	mg/kg															23	U	0.25	J	1.2	U
Metals	Vanadium	7440-62-2	mg/kg															140		46		27	
Metals	Zinc	7440-66-6	mg/kg															130		49		35	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg					3.2	JN														
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg	1.3	JN																		
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-237		B-238		B-24		B-24		B-24		B-25		B-25		B-25		B-26		B-26	
			Field Sample ID	C042407-B237		C042407-B238		C062204-B24-10-12		C062204-B24-4-6		C062204-B24-8-10		C062204-B25-10-11		C062204-B25-12-12.8		C062204-B25-4-6		C062204-B26-2-4		C062204-B26-8-10	
			Sample Start Depth	0		0		10		4		8		10		12		4		2		8	
			Sample End Depth	4		4		12		6		10		11		12.8		6		4		10	
			Sample Date	4/24/2007		4/24/2007		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	1,4-Dioxane	123-91-1	mg/kg					0.19	U							0.2	U			0.25	U	0.25	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	2-Hexanone	591-78-6	mg/kg					0.015	U							0.016	U			0.02	U	0.02	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg					0.015	U							0.016	U			0.02	U	0.02	U
VOCs	Acetone	67-64-1	mg/kg					0.038	U							0.04	U			0.049	U	0.051	U
VOCs	Benzene	71-43-2	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Bromobenzene	108-86-1	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Bromoform	75-25-2	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Bromomethane	74-83-9	mg/kg					0.0038	U							0.004	U			0.0049	U	0.0051	U
VOCs	Carbon disulfide	75-15-0	mg/kg					0.038	U							0.04	U			0.049	U	0.051	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Chlorobenzene	108-90-7	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Chlorobromomethane	74-97-5	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Chloroethane	75-00-3	mg/kg					0.0038	U							0.004	U			0.0049	U	0.0051	U
VOCs	Chloroform	67-66-3	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Chloromethane	74-87-3	mg/kg					0.0038	U							0.004	U			0.0049	U	0.0051	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Dibromomethane	74-95-3	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Ethylbenzene	100-41-4	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	m&p-Xylenes	NA	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg					0.015	U							0.016	U			0.02	U	0.02	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg					0.0038	U							0.004	U			0.0049	U	0.0051	U
VOCs	Methylene Chloride	75-09-2	mg/kg					0.0038	U							0.004	U			0.0049	U	0.0051	U
VOCs	n-Butylbenzene	104-51-8	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	N-Propylbenzene	103-65-1	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Naphthalene	91-20-3	mg/kg					0.019	U							0.02	U			0.025	U	0.025	U
VOCs	o-Xylene	95-47-6	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Styrene	100-42-5	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Tetrachloroethene	127-18-4	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg					0.0038	U							0.004	U			0.0049	U	0.0051	U
VOCs	Toluene	108-88-3	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Trichloroethene	79-01-6	mg/kg					0.0019	U							0.026				0.0025	U	0.0025	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg					0.0019	U							0.002	U			0.0025	U	0.0025	U
VOCs	Vinyl chloride	75-01-4	mg/kg					0.0038	U							0.004	U			0.0049	U	0.0051	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																	0.36	U	0.37	U
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																	0.36	U	0.37	U
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																	0.36	U	0.37	U
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																	0.36	U	0.37	U
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																	0.36	U	0.37	U
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																	0.36	U	0.37	U
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																	0.36	U	0.37	U
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																	0.36	U	0.37	U
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																	0.36	U	0.37	U
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																	0.36	U	0.37	U
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																	0.36	U	0.37	U
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																	0.36	U	0.37	U
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																	0.36	U	0.37	U
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																	0.87		0.19	U
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																	0.36	U	0.37	U

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-237		B-238		B-24		B-24		B-24		B-25		B-25		B-25		B-26		B-26	
			Field Sample ID	C042407-B237		C042407-B238		C062204-B24-10-12		C062204-B24-4-6		C062204-B24-8-10		C062204-B25-10-11		C062204-B25-12-12.8		C062204-B25-4-6		C062204-B26-2-4		C062204-B26-8-10	
			Sample Start Depth	0		0		10		4		8		10		12		4		2		8	
			Sample End Depth	4		4		12		6		10		11		12.8		6		4		10	
			Sample Date	4/24/2007		4/24/2007		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																	0.36	U	0.37	U
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																	0.36	U	0.37	U
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																	0.71	U	0.75	U
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																	0.36	U	0.37	U
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																	0.71	U	0.75	U
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																	1.8	U	1.9	U
SVOCs	Acenaphthene	83-32-9	mg/kg																	0.73		0.19	U
SVOCs	Acenaphthylene	208-96-8	mg/kg																	0.15	J	0.19	U
SVOCs	Acetophenone	98-86-2	mg/kg																	0.36	U	0.37	U
SVOCs	Aniline	62-53-3	mg/kg																	1.8	U	1.9	U
SVOCs	Anthracene	120-12-7	mg/kg																	0.45		0.19	U
SVOCs	Azobenzene	103-33-3	mg/kg																	0.36	U	0.37	U
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																	0.36		0.19	U
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																	0.23		0.19	U
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																	0.13	J	0.19	U
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																	0.093	J	0.19	U
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																	0.16	J	0.19	U
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																	0.36	U	0.37	U
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																	0.36	U	0.37	U
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																	0.36	U	0.37	U
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																	0.36	U	0.37	U
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																	0.36	U	0.37	U
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																	0.3		0.19	U
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																	0.36	U	0.37	U
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																	0.36	U	0.37	U
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																	0.18	U	0.19	U
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																	0.36	U	0.37	U
SVOCs	Diethyl phthalate	84-66-2	mg/kg																	0.36	U	0.37	U
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																	0.36	U	0.37	U
SVOCs	Fluoranthene	206-44-0	mg/kg																	0.55		0.19	U
SVOCs	Fluorene	86-73-7	mg/kg																	0.52		0.19	U
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																	0.36	U	0.37	U
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																	0.36	U	0.37	U
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																	0.36	U	0.37	U
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																	0.18	U	0.19	U
SVOCs	ISOPHORONE	78-59-1	mg/kg																	0.36	U	0.37	U
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																	1.2		0.19	U
SVOCs	NITROBENZENE	98-95-3	mg/kg																	0.36	U	0.37	U
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																	1.8	U	1.9	U
SVOCs	Phenanthrene	85-01-8	mg/kg																	1.4		0.19	U
SVOCs	PHENOL	108-95-2	mg/kg																	0.36	U	0.37	U
SVOCs	Pyrene	129-00-0	mg/kg																	0.86		0.19	U
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																	3.5	U	3.7	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																	3.5	U	3.7	U
EPH	C9-C18 Aliphatics	NA	mg/kg																	3.5	U	3.7	U
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																	3.5	U	3.7	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-237		B-238		B-24		B-24		B-24		B-25		B-25		B-25		B-26		B-26	
			Field Sample ID	C042407-B237		C042407-B238		C062204-B24-10-12		C062204-B24-4-6		C062204-B24-8-10		C062204-B25-10-11		C062204-B25-12-12.8		C062204-B25-4-6		C062204-B26-2-4		C062204-B26-8-10	
			Sample Start Depth	0		0		10		4		8		10		12		4		2		8	
			Sample End Depth	4		4		12		6		10		11		12.8		6		4		10	
			Sample Date	4/24/2007		4/24/2007		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	13,000		10,000				11,000		9,600		13,000				9,900		13,000		14,000	
Metals	Antimony	7440-36-0	mg/kg	2.2		1.2				2.4	U	2.3	U	4.3				2.4	U	2.5	U	2.2	U
Metals	Arsenic	7440-38-2	mg/kg	19		26				21		45		30				23		64		40	
Metals	Barium	7440-39-3	mg/kg	54		38				57		46		62				75		53		43	
Metals	Beryllium	7440-41-7	mg/kg	0.26	U	0.24	U			0.28		0.23	U	0.31				0.24		0.27		0.22	U
Metals	Cadmium	7440-43-9	mg/kg	0.35		0.26				0.24	U	0.23	U	0.31	U			0.32		0.25	U	0.22	U
Metals	Calcium	7440-70-2	mg/kg	2,700		1,700				1,200		1,600		1,400				2,000		870		1,900	
Metals	Chromium	7440-47-3	mg/kg	110		55				34		53		2000				58		560		680	
Metals	Cobalt	7440-48-4	mg/kg	10		6.5				7.5		9.2		7.6				6.7		9.7		12	
Metals	Copper	7440-50-8	mg/kg	130		41				11		130		340				27		64		330	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	3.3		3.3				0.59		2.7		9.2				2.2	U	55		48	
Metals	Iron	7439-89-6	mg/kg	20,000		15,000				15,000		17,000		23,000				15,000		22,000		22,000	
Metals	Lead	7439-92-1	mg/kg	15		35				4.6		5.6		260				230		12		8.6	
Metals	Magnesium	7439-95-4	mg/kg	8,700		4,600				5,600		7,000		8,500				5,500		9,400		11,000	
Metals	Manganese	7439-96-5	mg/kg	220		250				240		310		180				220		280		410	
Metals	Mercury	7439-97-6	mg/kg	0.034	J	0.099	U			0.097	U	0.083	U	0.22				0.28		0.087	U	0.096	U
Metals	Nickel	7440-02-0	mg/kg	34		22				30		35		32				24		34		47	
Metals	Potassium	7440-09-7	mg/kg	3,600		2,400				1,700		2,300		2,300				1,800		3,300		3,400	
Metals	Selenium	7782-49-2	mg/kg	0.64	U	0.6	U			1.2	U	1.2	U	1.5	U			1.2	U	1.2	U	1.1	U
Metals	Silver	7440-22-4	mg/kg	1.8		0.67				1.2	U	1.2	U	1.9				1.2	U	1.2	U	1.1	U
Metals	Sodium	7440-23-5	mg/kg	100	J	68	J			150		180		210				180		150		220	
Metals	Thallium	7440-28-0	mg/kg	1.3	U	1.2	U			1.2	U	1.2	U	1.5	U			1.2	U	1.2	U	1.1	U
Metals	Vanadium	7440-62-2	mg/kg	32		20				21		22		30				22		49		36	
Metals	Zinc	7440-66-6	mg/kg	41		33				28		35		94				140		41		46	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																	0.008	J		
TIC	1-4-Methanonaphthalene	NA	mg/kg																	0.02	J		
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																	0.007	J		
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																	0.005	J		
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																	0.005	J		
TIC	2-Methylanthracene	613-12-7	mg/kg																	0.006	J		
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-32		B-32		B-33		B-33		B-34		B-35		B-35		B-36A		B-38		B-38	
			Field Sample ID	C062204-B32-4-6		C062204-B32-6-8		C062204-B33-4-6		C062204-B33-6-8		C062304-B34-0.4-2		C062304-B35-0.4-2.4		C062304-B35-2.4-4.4		C062304-B36A-0.4-2.1		C062404-B38-2-4		C062404-B38-4-6	
			Sample Start Depth	4		6		4		6		0.4		0.4		2.4		0.4		2		4	
			Sample End Depth	6		8		6		8		2		2.4		4.4		2.1		4		6	
			Sample Date	6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/23/2004		6/23/2004		6/23/2004		6/23/2004		6/24/2004		6/24/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg			0.0047	U			0.0045	U	0.0046	U	0.0052	U	0.0045	U	0.0045	U			0.0042	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	1,4-Dioxane	123-91-1	mg/kg			0.24	U			0.22	U	0.23	U	0.26	U	0.22	U	0.22	U			0.21	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	2-Hexanone	591-78-6	mg/kg			0.019	U			0.018	U	0.019	U	0.021	U	0.018	U	0.018	U			0.017	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg			0.019	U			0.018	U	0.019	U	0.021	U	0.018	U	0.018	U			0.017	U
VOCs	Acetone	67-64-1	mg/kg			0.047	U			0.045	U	0.046	U	0.052	U	0.045	U	0.045	U			0.042	U
VOCs	Benzene	71-43-2	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Bromobenzene	108-86-1	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Bromoform	75-25-2	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Bromomethane	74-83-9	mg/kg			0.0047	U			0.0045	U	0.0046	U	0.0052	U	0.0045	U	0.0045	U			0.0042	U
VOCs	Carbon disulfide	75-15-0	mg/kg			0.047	U			0.012	J	0.046	U	0.052	U	0.045	U	0.045	U			0.042	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Chlorobenzene	108-90-7	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Chlorobromomethane	74-97-5	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Chloroethane	75-00-3	mg/kg			0.0047	U			0.0045	U	0.0046	U	0.0052	U	0.0045	U	0.0045	U			0.0042	U
VOCs	Chloroform	67-66-3	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Chloromethane	74-87-3	mg/kg			0.0047	U			0.0045	U	0.0046	U	0.0052	U	0.0045	U	0.0045	U			0.0042	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Dibromomethane	74-95-3	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Ethylbenzene	100-41-4	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	m&p-Xylenes	NA	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg			0.019	U			0.018	U	0.019	U	0.021	U	0.018	U	0.018	U			0.017	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg			0.0047	U			0.0045	U	0.0046	U	0.0052	U	0.0045	U	0.0045	U			0.0042	U
VOCs	Methylene Chloride	75-09-2	mg/kg			0.0047	U			0.0045	U	0.0046	U	0.0052	U	0.0045	U	0.0045	U			0.0042	U
VOCs	n-Butylbenzene	104-51-8	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	N-Propylbenzene	103-65-1	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Naphthalene	91-20-3	mg/kg			0.024	U			0.022	U	0.023	U	0.026	U	0.022	U	0.022	U			0.021	U
VOCs	o-Xylene	95-47-6	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Styrene	100-42-5	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Tetrachloroethene	127-18-4	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg			0.0047	U			0.0045	U	0.0046	U	0.0052	U	0.0045	U	0.0045	U			0.0042	U
VOCs	Toluene	108-88-3	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Trichloroethene	79-01-6	mg/kg			0.0035				0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg			0.0024	U			0.0022	U	0.0023	U	0.0026	U	0.0022	U	0.0022	U			0.0021	U
VOCs	Vinyl chloride	75-01-4	mg/kg			0.0047	U			0.0045	U	0.0046	U	0.0052	U	0.0045	U	0.0045	U			0.0042	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-32		B-32		B-33		B-33		B-34		B-35		B-35		B-36A		B-38		B-38	
			Field Sample ID	C062204-B32-4-6		C062204-B32-6-8		C062204-B33-4-6		C062204-B33-6-8		C062304-B34-0.4-2		C062304-B35-0.4-2.4		C062304-B35-2.4-4.4		C062304-B36A-0.4-2.1		C062404-B38-2-4		C062404-B38-4-6	
			Sample Start Depth	4		6		4		6		0.4		0.4		2.4		0.4		2		4	
			Sample End Depth	6		8		6		8		2		2.4		4.4		2.1		4		6	
			Sample Date	6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/23/2004		6/23/2004		6/23/2004		6/23/2004		6/24/2004		6/24/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg									0.71	U	0.73	U	0.74	U	0.73	U			0.74	U
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg									0.71	U	0.73	U	0.74	U	0.73	U			0.74	U
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg									1.8	U	1.8	U	1.8	U	1.8	U			1.8	U
SVOCs	Acenaphthene	83-32-9	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Acenaphthylene	208-96-8	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Acetophenone	98-86-2	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Aniline	62-53-3	mg/kg									1.8	U	1.8	U	1.8	U	1.8	U			1.8	U
SVOCs	Anthracene	120-12-7	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Azobenzene	103-33-3	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	DIBENZOFURAN	132-64-9	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Diethyl phthalate	84-66-2	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Fluoranthene	206-44-0	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	Fluorene	86-73-7	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	ISOPHORONE	78-59-1	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	NITROBENZENE	98-95-3	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg									1.8	U	1.8	U	1.8	U	1.8	U			1.8	U
SVOCs	Phenanthrene	85-01-8	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
SVOCs	PHENOL	108-95-2	mg/kg									0.35	U	0.37	U	0.37	U	0.37	U			0.37	U
SVOCs	Pyrene	129-00-0	mg/kg									0.18	U	0.18	U	0.18	U	0.18	U			0.18	U
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg									3.6	U	3.7	U	3.7	U	3.7	U			3.7	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																			3.7	U
EPH	C19-C36 Aliphatics	NA	mg/kg									3.6	U	3.7	U	3.7	U	3.7	U			9	
EPH	C9-C18 Aliphatics	NA	mg/kg									3.6	U	3.7	U	3.7	U	3.7	U			3.7	U
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg									3.6	U	3.7	U	3.7	U	3.7	U			9	
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-32		B-32		B-33		B-33		B-34		B-35		B-35		B-36A		B-38		B-38	
			Field Sample ID	C062204-B32-4-6		C062204-B32-6-8		C062204-B33-4-6		C062204-B33-6-8		C062304-B34-0.4-2		C062304-B35-0.4-2.4		C062304-B35-2.4-4.4		C062304-B36A-0.4-2.1		C062404-B38-2-4		C062404-B38-4-6	
			Sample Start Depth	4		6		4		6		0.4		0.4		2.4		0.4		2		4	
			Sample End Depth	6		8		6		8		2		2.4		4.4		2.1		4		6	
			Sample Date	6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/23/2004		6/23/2004		6/23/2004		6/23/2004		6/24/2004		6/24/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	11,000		41,000		21,000		14,000		24,000		10,000		10,000		52,000		9,600		12,000	
Metals	Antimony	7440-36-0	mg/kg	3.6		10		2.3	U	3.1		2.3	U	1.3	U	1.3	U	2.5	U	1.4	U	1.4	U
Metals	Arsenic	7440-38-2	mg/kg	41		71		79		59		100		23		27		130		15		31	
Metals	Barium	7440-39-3	mg/kg	56		330		170		140		160		40		42		290		45		58	
Metals	Beryllium	7440-41-7	mg/kg	0.28	U	0.61	U	0.23	U	0.25	U	0.23	U	0.17		0.22		0.32		0.26		0.34	
Metals	Cadmium	7440-43-9	mg/kg	0.28	U	0.61	U	0.23	U	0.65		0.23	U	0.13	U	0.13	U	0.25	U	0.14	U	0.14	U
Metals	Calcium	7440-70-2	mg/kg	1,800		15,000		3,400		1,800		6,100		1,800		2,100		20,000		2,900		2,200	
Metals	Chromium	7440-47-3	mg/kg	980		4600		660		1300		120		34		38		100		150		240	
Metals	Cobalt	7440-48-4	mg/kg	8		21		11		11		20		7.1		8.3		28		6		8.6	
Metals	Copper	7440-50-8	mg/kg	2700		2500		230		1500		62		10		13		13		71		120	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	65		29		15		1.8		3.6		0.25	U	0.19	U	0.21	U	1.7		7.3	
Metals	Iron	7439-89-6	mg/kg	17,000		61,000		34,000		23,000		36,000		15,000		16,000		49,000		12,000		18,000	
Metals	Lead	7439-92-1	mg/kg	370		350		47		280		14		4.5		7.7		7.9		10		36	
Metals	Magnesium	7439-95-4	mg/kg	5,800		22,000		16,000		9,900		17,000		6,100		6,500		26,000		4,400		6,800	
Metals	Manganese	7439-96-5	mg/kg	220		490		250		370		360		230		330		1,100		210		260	
Metals	Mercury	7439-97-6	mg/kg	0.39		0.083	U	0.086	U	0.15		0.092	U	0.11	U	0.089	U	0.094	U	0.1	U	0.1	U
Metals	Nickel	7440-02-0	mg/kg	49		63		58		210		59		25		33		12		19		30	
Metals	Potassium	7440-09-7	mg/kg	2,200		15,000		10,000		6,800		7,400		2,700		2,200		12,000		2,500		3,300	
Metals	Selenium	7782-49-2	mg/kg	1.4	U	3.1	U	1.2	U	1.2	U	1.1	U	0.67	U	0.64	U	1.2	U	0.71	U	0.69	U
Metals	Silver	7440-22-4	mg/kg	12		3.1	U	5.4		40		1.1	U	0.67	U	0.64	U	1.2	U	0.71	U	0.69	U
Metals	Sodium	7440-23-5	mg/kg	250		13000		820		440		570		130	U	150		4100		200		230	
Metals	Thallium	7440-28-0	mg/kg	1.4	U	3.1	U	1.2	U	1.2	U	1.1	U	0.67	U	0.64	U	1.2	U	0.71	U	0.69	U
Metals	Vanadium	7440-62-2	mg/kg	26		220		62		49		83		23		24		180		21		28	
Metals	Zinc	7440-66-6	mg/kg	43		64		61		59		67		31		32		79		27		37	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																			0.005	J
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg							0.02	J												
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-38		B-39		B-40		B-40		B-41		B-45		B-46		B-46		B-46		B-47	
			Field Sample ID	C062404-B38-8-10		C062304-B39-2-2.9		C062404-B40-0-2		C062404-B40-6-7.9		C062404-B41-0.5-1		C062404-B45-9-11		C100404-B46-S2		C100404-B46-S3		C100404-B46-S5		C100404-B47-S2	
			Sample Start Depth	8		2		0		6		0.5		9		2		4		8		2	
			Sample End Depth	10		2.9		2		7.75		1		11		4		6		10		4	
			Sample Date	6/24/2004		6/23/2004		6/24/2004		6/24/2004		6/24/2004		6/24/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.17	U	0.25	U	0.23	U	0.2	U			0.18	U								
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	2-Hexanone	591-78-6	mg/kg	0.014	U	0.02	U	0.019	U	0.016	U			0.014	U								
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.014	U	0.02	U	0.019	U	0.016	U			0.014	U								
VOCs	Acetone	67-64-1	mg/kg	0.035	U	0.049	U	0.047	U	0.039	U			0.035	U								
VOCs	Benzene	71-43-2	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Bromobenzene	108-86-1	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Bromoform	75-25-2	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Bromomethane	74-83-9	mg/kg	0.0035	U	0.0049	U	0.0047	U	0.0039	U			0.0035	U								
VOCs	Carbon disulfide	75-15-0	mg/kg	0.035	U	0.049	U	0.047	U	0.039	U			0.035	U								
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Chloroethane	75-00-3	mg/kg	0.0035	U	0.0049	U	0.0047	U	0.0039	U			0.0035	U								
VOCs	Chloroform	67-66-3	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Chloromethane	74-87-3	mg/kg	0.0035	U	0.0049	U	0.0047	U	0.0039	U			0.0035	U								
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0017	U	0.034		0.0023	U	0.002	U			0.0018	U								
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Dibromomethane	74-95-3	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	m&p-Xylenes	NA	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.014	U	0.02	U	0.019	U	0.016	U			0.014	U								
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0035	U	0.0049	U	0.0047	U	0.0039	U			0.0035	U								
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0035	U	0.0049	U	0.0047	U	0.0039	U			0.0035	U								
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Naphthalene	91-20-3	mg/kg	0.017	U	0.025	U	0.023	U	0.02	U			0.018	U								
VOCs	o-Xylene	95-47-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Styrene	100-42-5	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0017	U	0.026		0.0023	U	0.002	U			0.0018	U								
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.0035	U	0.0049	U	0.0047	U	0.0039	U			0.0035	U								
VOCs	Toluene	108-88-3	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Trichloroethene	79-01-6	mg/kg	0.0025		0.022		0.0023	U	0.002	U			0.0018	U								
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0017	U	0.0025	U	0.0023	U	0.002	U			0.0018	U								
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0035	U	0.0049	U	0.0047	U	0.0039	U			0.0035	U								
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg			0.36	U																
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg			0.36	U																
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg			0.36	U																
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg			0.36	U																
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg			0.36	U																
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg			0.36	U																
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg			0.36	U																
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg			0.36	U																
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg			0.36	U																
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg			0.36	U																
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg			0.36	U																
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg			0.36	U																
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg			0.36	U																
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg			0.18	U																
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg			0.36	U																

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-38		B-39		B-40		B-40		B-41		B-45		B-46		B-46		B-46		B-47	
			Field Sample ID	C062404-B38-8-10		C062304-B39-2-2.9		C062404-B40-0-2		C062404-B40-6-7.9		C062404-B41-0.5-1		C062404-B45-9-11		C100404-B46-S2		C100404-B46-S3		C100404-B46-S5		C100404-B47-S2	
			Sample Start Depth	8		2		0		6		0.5		9		2		4		8		2	
			Sample End Depth	10		2.9		2		7.75		1		11		4		6		10		4	
			Sample Date	6/24/2004		6/23/2004		6/24/2004		6/24/2004		6/24/2004		6/24/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg			0.36	U																
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg			0.36	U																
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg			0.72	U																
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg			0.36	U																
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg			0.72	U																
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg			1.8	U																
SVOCs	Acenaphthene	83-32-9	mg/kg			0.18	U																
SVOCs	Acenaphthylene	208-96-8	mg/kg			0.18	U																
SVOCs	Acetophenone	98-86-2	mg/kg			0.36	U																
SVOCs	Aniline	62-53-3	mg/kg			1.8	U																
SVOCs	Anthracene	120-12-7	mg/kg			0.18	U																
SVOCs	Azobenzene	103-33-3	mg/kg			0.36	U																
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg			0.18	U																
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg			0.18	U																
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg			0.18	U																
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg			0.18	U																
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg			0.18	U																
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg			0.36	U																
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg			0.36	U																
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg			0.36	U																
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg			0.36	U																
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg			0.36	U																
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg			0.18	U																
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg			0.36	U																
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg			0.36	U																
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg			0.18	U																
SVOCs	DIBENZOFURAN	132-64-9	mg/kg			0.36	U																
SVOCs	Diethyl phthalate	84-66-2	mg/kg			0.36	U																
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg			0.36	U																
SVOCs	Fluoranthene	206-44-0	mg/kg			0.18	U																
SVOCs	Fluorene	86-73-7	mg/kg			0.18	U																
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg			0.36	U																
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg			0.36	U																
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg			0.36	U																
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg			0.18	U																
SVOCs	ISOPHORONE	78-59-1	mg/kg			0.36	U																
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg			0.18	U																
SVOCs	NITROBENZENE	98-95-3	mg/kg			0.36	U																
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg			1.8	U																
SVOCs	Phenanthrene	85-01-8	mg/kg			0.18	U																
SVOCs	PHENOL	108-95-2	mg/kg			0.36	U																
SVOCs	Pyrene	129-00-0	mg/kg			0.18	U																
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg			3.6	U																
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg			8.4																	
EPH	C9-C18 Aliphatics	NA	mg/kg			3.6	U																
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg			8.4																	
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-38		B-39		B-40		B-40		B-41		B-45		B-46		B-46		B-46		B-47	
			Field Sample ID	C062404-B38-8-10		C062304-B39-2-2.9		C062404-B40-0-2		C062404-B40-6-7.9		C062404-B41-0.5-1		C062404-B45-9-11		C100404-B46-S2		C100404-B46-S3		C100404-B46-S5		C100404-B47-S2	
			Sample Start Depth	8		2		0		6		0.5		9		2		4		8		2	
			Sample End Depth	10		2.9		2		7.75		1		11		4		6		10		4	
			Sample Date	6/24/2004		6/23/2004		6/24/2004		6/24/2004		6/24/2004		6/24/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	14,000		12,000		12,000		9,400		12,000		19,000									
Metals	Antimony	7440-36-0	mg/kg	1.6		1.2	U	1.2	U	1.3	U	1.5	U	1.4	U	0.44	B	0.63	B	0.44	B	0.4	B
Metals	Arsenic	7440-38-2	mg/kg	32		61		27		18		20		23		43		24		25		46	
Metals	Barium	7440-39-3	mg/kg	61		68		61		40		19		94									
Metals	Beryllium	7440-41-7	mg/kg	0.29		0.23		0.25		0.27		0.34		0.67		0.12	U	0.007	B	0.13	U	0.11	U
Metals	Cadmium	7440-43-9	mg/kg	0.13	U	0.12	U	0.12	U	0.13	U	0.15	U	0.14	U								
Metals	Calcium	7440-70-2	mg/kg	2,000		8,100		1,800		4,300		1,000		2,600									
Metals	Chromium	7440-47-3	mg/kg	680		240		76		65		120		42		55		28		36		68	
Metals	Cobalt	7440-48-4	mg/kg	9.7		11		8.7		7.1		6.6		10									
Metals	Copper	7440-50-8	mg/kg	330		130		40		150		55		23		19		12		11		19	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	50		0.85		1.5		0.45		5.7	U	0.21	U	0.45		1.1		1.7		0.23	U
Metals	Iron	7439-89-6	mg/kg	20,000		20,000		17,000		14,000		15,000		20,000									
Metals	Lead	7439-92-1	mg/kg	7.6		13		7.8		6.2		150		11		8.4		5		4.5		6.3	
Metals	Magnesium	7439-95-4	mg/kg	8,400		7,200		7,700		5,600		5,100		8,700									
Metals	Manganese	7439-96-5	mg/kg	300		350		270		250		190		450									
Metals	Mercury	7439-97-6	mg/kg	0.093	U	0.11	U	0.099	U	0.079	U	0.11	U	0.096	U								
Metals	Nickel	7440-02-0	mg/kg	37		39		33		26		22		34									
Metals	Potassium	7440-09-7	mg/kg	3,600		3,500		3,600		1,800		1,200		4,400									
Metals	Selenium	7782-49-2	mg/kg	0.64	U	0.59	U	0.58	U	0.67	U	0.75	U	0.69	U								
Metals	Silver	7440-22-4	mg/kg	0.64	U	0.59	U	0.58	U	0.67	U	0.75	U	0.69	U								
Metals	Sodium	7440-23-5	mg/kg	230		210		160		140		400		240									
Metals	Thallium	7440-28-0	mg/kg	0.64	U	0.59	U	0.58	U	0.67	U	0.75	U	0.69	U								
Metals	Vanadium	7440-62-2	mg/kg	32		32		30		20		25		30									
Metals	Zinc	7440-66-6	mg/kg	41		36		37		30		53		43									
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg			0.04	J																
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg					0.03	J														
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg			0.005	J																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-47		B-47		B-48		B-48		B-48		B-49		B-49		B-49		B-50		B-50	
			Field Sample ID	C100404-B47-S3		C100404-B47-S5		C100404-B48-S3		C100404-B48-S4		C100404-B48-S6		C100404-B49-S3		C100404-B49-S5		C100404-B49-S6		C100404-B50-S3		C100404-B50-S4	
			Sample Start Depth	4		8		4		6		8		4		8		10		4		6	
			Sample End Depth	6		10		6		8		10		6		10		11.83		6		8	
			Sample Date	10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,1-Dichloroethane	75-34-3	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,1-Dichloroethene	75-35-4	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,1-Dichloropropene	563-58-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2-Dichloroethane	107-06-2	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,2-Dichloropropane	78-87-5	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,3-Dichloropropane	142-28-9	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	1,4-Dioxane	123-91-1	mg/kg					0.21	U	0.21	U	0.22	U										
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	2-Chlorotoluene	95-49-8	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	2-Hexanone	591-78-6	mg/kg					0.017	U	0.017	U	0.018	U										
VOCs	4-Chlorotoluene	106-43-4	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	4-Isopropyltoluene	99-87-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg					0.017	U	0.017	U	0.018	U										
VOCs	Acetone	67-64-1	mg/kg					0.21	U	0.21	U	0.22	U										
VOCs	Benzene	71-43-2	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Bromobenzene	108-86-1	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Bromoform	75-25-2	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Bromomethane	74-83-9	mg/kg					0.0043	U	0.0042	U	0.0044	U										
VOCs	Carbon disulfide	75-15-0	mg/kg					0.043	U	0.042	U	0.044	U										
VOCs	Carbon tetrachloride	56-23-5	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Chlorobenzene	108-90-7	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Chlorobromomethane	74-97-5	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Chlorodibromomethane	124-48-1	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Chloroethane	75-00-3	mg/kg					0.0043	U	0.0042	U	0.0044	U										
VOCs	Chloroform	67-66-3	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Chloromethane	74-87-3	mg/kg					0.0043	U	0.0042	U	0.0044	U										
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Dibromomethane	74-95-3	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Dichlorobromomethane	75-27-4	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	DIETHYL ETHER	60-29-7	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Ethylbenzene	100-41-4	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Hexachlorobutadiene	87-68-3	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	m&p-Xylenes	NA	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg					0.017	U	0.017	U	0.018	U										
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg					0.0043	U	0.0042	U	0.0044	U										
VOCs	Methylene Chloride	75-09-2	mg/kg					0.0043	U	0.0042	U	0.0044	U										
VOCs	n-Butylbenzene	104-51-8	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	N-Propylbenzene	103-65-1	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Naphthalene	91-20-3	mg/kg					0.021	U	0.021	U	0.022	U										
VOCs	o-Xylene	95-47-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	sec-Butylbenzene	135-98-8	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Styrene	100-42-5	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	tert-Butylbenzene	98-06-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Tetrachloroethene	127-18-4	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Tetrahydrofuran	109-99-9	mg/kg					0.015	U	0.015	U	0.015	U										
VOCs	Toluene	108-88-3	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Trichloroethene	79-01-6	mg/kg					0.0021	U	0.0021	U	0.0024											
VOCs	Trichlorofluoromethane	75-69-4	mg/kg					0.0021	U	0.0021	U	0.0022	U										
VOCs	Vinyl chloride	75-01-4	mg/kg					0.0043	U	0.0042	U	0.0044	U										
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-47		B-47		B-48		B-48		B-48		B-49		B-49		B-49		B-50		B-50	
			Field Sample ID	C100404-B47-S3		C100404-B47-S5		C100404-B48-S3		C100404-B48-S4		C100404-B48-S6		C100404-B49-S3		C100404-B49-S5		C100404-B49-S6		C100404-B50-S3		C100404-B50-S4	
			Sample Start Depth	4		8		4		6		8		4		8		10		4		6	
			Sample End Depth	6		10		6		8		10		6		10		11.83		6		8	
			Sample Date	10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-47		B-47		B-48		B-48		B-48		B-49		B-49		B-49		B-50		B-50	
			Field Sample ID	C100404-B47-S3		C100404-B47-S5		C100404-B48-S3		C100404-B48-S4		C100404-B48-S6		C100404-B49-S3		C100404-B49-S5		C100404-B49-S6		C100404-B50-S3		C100404-B50-S4	
			Sample Start Depth	4		8		4		6		8		4		8		10		4		6	
			Sample End Depth	6		10		6		8		10		6		10		11.83		6		8	
			Sample Date	10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004		10/4/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg	0.52	B	3	U	2.5	U	2.4	U	2.2	U	2.2	U	2.4	U	2.2	U	2.4	U	2.4	U
Metals	Arsenic	7440-38-2	mg/kg	43		71		32		110		65		22		33		28		20		54	
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg	0.13	U	0.3	U	0.25	U	0.24	U	0.22	U	0.22	U	0.24	U	0.22	U	0.24	U	0.24	U
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	80		2000		760		670		1000		36		51		80		110		120	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg	30		2200		220		380		230		14		91		70		21		30	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.94		28		83		33		72		0.73		0.7		2		5.5		12	
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg	18		7		8.7		7.3		14		6.8		12		25		25		20	
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-50		B-51		B-51		B-51		B-52		B-52		B-52		B-53		B-53		B-53	
				Field Sample ID	C100404-B50-S6		C100804-B51-S3		C100804-B51-S4		C100804-B51-S5		C100804-B52-S3		C100804-B52-S4		C100804-B52-S6		C100804-B53-S2		C100804-B53-S4		C100804-B53-S5	
				Sample Start Depth	10		4		6		8		4		6		10		2		6		8	
				Sample End Depth	12		6		8		10		6		8		11.92		4		8		10	
				Sample Date	10/4/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	1,4-Dioxane	123-91-1	mg/kg															0.24	U	0.24	U	15	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	2-Hexanone	591-78-6	mg/kg															0.019	U	0.019	U	1.2	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg															0.019	U	0.019	U	1.2	U
VOCs	Acetone	67-64-1	mg/kg															0.24	U	0.24	U	15	U
VOCs	Benzene	71-43-2	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Bromobenzene	108-86-1	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Bromoform	75-25-2	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Bromomethane	74-83-9	mg/kg															0.0047	U	0.0048	U	0.3	U
VOCs	Carbon disulfide	75-15-0	mg/kg															0.047	U	0.048	U	3	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Chlorobenzene	108-90-7	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Chlorobromomethane	74-97-5	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Chloroethane	75-00-3	mg/kg															0.0047	U	0.0048	U	0.3	U
VOCs	Chloroform	67-66-3	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Chloromethane	74-87-3	mg/kg															0.0047	U	0.0048	U	0.3	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg															0.0024	U	0.0024	U	0.41	
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Dibromomethane	74-95-3	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Ethylbenzene	100-41-4	mg/kg															0.0024	U	0.03		1.1	
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	m&p-Xylenes	NA	mg/kg															0.0031		0.11		5.5	
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg															0.019	U	0.019	U	1.2	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg															0.0047	U	0.0048	U	0.3	U
VOCs	Methylene Chloride	75-09-2	mg/kg															0.0047	U	0.0048	U	0.3	U
VOCs	n-Butylbenzene	104-51-8	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	N-Propylbenzene	103-65-1	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Naphthalene	91-20-3	mg/kg															0.024	U	0.024	U	1.5	U
VOCs	o-Xylene	95-47-6	mg/kg															0.0024	U	0.0024	U	1.1	
VOCs	sec-Butylbenzene	135-98-8	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Styrene	100-42-5	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Tetrachloroethene	127-18-4	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg															0.016	U	0.017	U	1	U
VOCs	Toluene	108-88-3	mg/kg															0.0024	U	0.0024	U	0.31	
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Trichloroethene	79-01-6	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg															0.0024	U	0.0024	U	0.15	U
VOCs	Vinyl chloride	75-01-4	mg/kg															0.0047	U	0.0048	U	0.3	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-50		B-51		B-51		B-51		B-52		B-52		B-52		B-53		B-53		B-53	
			Field Sample ID	C100404-B50-S6		C100804-B51-S3		C100804-B51-S4		C100804-B51-S5		C100804-B52-S3		C100804-B52-S4		C100804-B52-S6		C100804-B53-S2		C100804-B53-S4		C100804-B53-S5	
			Sample Start Depth	10		4		6		8		4		6		10		2		6		8	
			Sample End Depth	12		6		8		10		6		8		11.92		4		8		10	
			Sample Date	10/4/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Acenaphthylene	208-96-8	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	Fluorene	86-73-7	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg			0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U						
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-50		B-51		B-51		B-51		B-52		B-52		B-52		B-53		B-53		B-53	
				Field Sample ID	C100404-B50-S6		C100804-B51-S3		C100804-B51-S4		C100804-B51-S5		C100804-B52-S3		C100804-B52-S4		C100804-B52-S6		C100804-B53-S2		C100804-B53-S4		C100804-B53-S5	
				Sample Start Depth	10		4		6		8		4		6		10		2		6		8	
				Sample End Depth	12		6		8		10		6		8		11.92		4		8		10	
				Sample Date	10/4/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004		10/8/2004	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg	2.3	U	1.2	U	2.4	U	1.3	U	1.2	U	1.2	U	1.2	U	2.2	U	1.1	U	1.2	U
Metals	Arsenic	7440-38-2	mg/kg	30		54		19		15		42		100		43		41		25		20	
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg	0.23	U	0.12	U	0.24	U	0.13	U	0.12	U	0.12	U	0.12	U	0.11	U	0.11	U	0.12	U
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	49		120		49		21		41		32		34		130		54		34	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg	78		18		42		66		15		92		190		130		20		10	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	3.9		14		16		3.6		2.4		3.1		3.3		19		0.24	U	0.56	
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg	27		7.8		4.9		3.3		5		4.8		3.9		8.9		5.6		5.4	
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-54		B-54		B-54		B-55		B-56		B-56		B-56		B-57		B-57		B-57	
			Field Sample ID	C100504-B54-S3		C100504-B54-S5		C100504-B54-S9		C100504-B55-S8		C100504-B56-S2		C100504-B56-S4		C100504-B56-S8		C100504-B57-S2		C100504-B57-S4		C100504-B57-S8	
			Sample Start Depth	4		8		15		14		2		6		14		2		6		14	
			Sample End Depth	6		10		15.92		14.67		4		8		14.67		4		8		14.33	
			Sample Date	10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.22	U	0.17	U	0.18	U	0.27	U	0.17	U	0.19	U	0.25	U	0.24	U	0.22	U	0.22	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.017	U	0.014	U	0.014	U	0.022	U	0.014	U	0.015	U	0.02	U	0.019	U	0.018	U	0.017	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.017	U	0.014	U	0.014	U	0.022	U	0.014	U	0.015	U	0.02	U	0.019	U	0.018	U	0.017	U
VOCs	Acetone	67-64-1	mg/kg	0.22	U	0.17	U	0.18	U	0.27	U	0.17	U	0.19	U	0.25	U	0.24	U	0.22	U	0.22	U
VOCs	Benzene	71-43-2	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Bromoform	75-25-2	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Bromomethane	74-83-9	mg/kg	0.0043	U	0.0034	U	0.0035	U	0.0054	U	0.0035	U	0.0038	U	0.0051	U	0.0048	U	0.0044	U	0.0044	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.043	U	0.034	U	0.035	U	0.054	U	0.035	U	0.038	U	0.051	U	0.048	U	0.044	U	0.044	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Chloroethane	75-00-3	mg/kg	0.0043	U	0.0034	U	0.0035	U	0.0054	U	0.0035	U	0.0038	U	0.0051	U	0.0048	U	0.0044	U	0.0044	U
VOCs	Chloroform	67-66-3	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Chloromethane	74-87-3	mg/kg	0.0043	U	0.0034	U	0.0035	U	0.0054	U	0.0035	U	0.0038	U	0.0051	U	0.0048	U	0.0044	U	0.0044	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0022		0.0027		0.0021		0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0037	
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	m&p-Xylenes	NA	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0042		0.0017	U	0.0019	U	0.0025	U	0.009		0.0022	U	0.0022	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.017	U	0.014	U	0.014	U	0.022	U	0.014	U	0.015	U	0.02	U	0.019	U	0.018	U	0.017	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0043	U	0.0034	U	0.0035	U	0.0054	U	0.0035	U	0.0038	U	0.0051	U	0.0048	U	0.0044	U	0.0044	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0043	U	0.0034	U	0.0035	U	0.0054	U	0.0035	U	0.0038	U	0.0051	U	0.0048	U	0.0044	U	0.0044	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Naphthalene	91-20-3	mg/kg	0.022	U	0.017	U	0.018	U	0.027	U	0.017	U	0.019	U	0.025	U	0.024	U	0.022	U	0.022	U
VOCs	o-Xylene	95-47-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0036		0.0022	U	0.0022	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Styrene	100-42-5	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.015	U	0.012	U	0.012	U	0.019	U	0.012	U	0.013	U	0.017	U	0.016	U	0.015	U	0.015	U
VOCs	Toluene	108-88-3	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.0022	U	0.0093		0.0036		0.006		0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0093	
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0022	U	0.0017	U	0.0018	U	0.0027	U	0.0017	U	0.0019	U	0.0025	U	0.0024	U	0.0022	U	0.0022	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0043	U	0.0034	U	0.0035	U	0.0054	U	0.0035	U	0.0038	U	0.0051	U	0.0048	U	0.0044	U	0.0044	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-54		B-54		B-54		B-55		B-56		B-56		B-56		B-57		B-57		B-57	
			Field Sample ID	C100504-B54-S3		C100504-B54-S5		C100504-B54-S9		C100504-B55-S8		C100504-B56-S2		C100504-B56-S4		C100504-B56-S8		C100504-B57-S2		C100504-B57-S4		C100504-B57-S8	
			Sample Start Depth	4		8		15		14		2		6		14		2		6		14	
			Sample End Depth	6		10		15.92		14.67		4		8		14.67		4		8		14.33	
			Sample Date	10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-54		B-54		B-54		B-55		B-56		B-56		B-56		B-57		B-57		B-57	
				Field Sample ID	C100504-B54-S3		C100504-B54-S5		C100504-B54-S9		C100504-B55-S8		C100504-B56-S2		C100504-B56-S4		C100504-B56-S8		C100504-B57-S2		C100504-B57-S4		C100504-B57-S8	
				Sample Start Depth	4		8		15		14		2		6		14		2		6		14	
				Sample End Depth	6		10		15.92		14.67		4		8		14.67		4		8		14.33	
				Sample Date	10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004		10/5/2004	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg	2.3	U	2.2	U	2.4	U	2.5	U	2.5	U	2.3	U	2.3	U	2.3	U	2.3	U	2.2	U	2.3	U
Metals	Arsenic	7440-38-2	mg/kg	23		14		19		22		47		23		21		29		9.2		31			
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg	0.23	U	0.22	U	0.24	U	0.25	U	0.25	U	0.23	U	0.23	U	0.23	U	0.22	U	0.23	U		
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	51		460		83		72		640		270		120		930		17		240			
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg	13		110		27		39		61		17		21		21		10		11			
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	2.5		14		9.5		4.4		27		6.6		8		0.66		0.28		8.7			
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg	11		7.3		7.3		4.9		9.1		5.8		8		7.2		4.4		4			
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-58		B-59		B-59		B-61		B-61		B-62		B-62		B-63		B-65		B-65	
				Field Sample ID	C100604-B58-S8		C100604-B59-S4		C100604-B59-S5		C100604-B61-S1		C100604-B61-S2		C100604-B62-S2		C100604-B62-S3		C100604-B63-S4		C100604-B65-S3		C100604-B65-S4	
				Sample Start Depth	14		5		6		0		2		2		4		6		4		6	
				Sample End Depth	14.83		6		6.83		2		3.25		4		5.92		6.42		6		8	
				Sample Date	10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg		0.002	U	0.2	U																
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg		0.002	U	0.2	U																
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		0.002	U	0.2	U																
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg		0.002	U	0.2	U																
VOCs	1,1-Dichloroethane	75-34-3	mg/kg		0.002	U	0.2	U																
VOCs	1,1-Dichloroethene	75-35-4	mg/kg		0.002	U	0.2	U																
VOCs	1,1-Dichloropropene	563-58-6	mg/kg		0.002	U	0.2	U																
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg		0.002	U	0.2	U																
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg		0.002	U	0.2	U																
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg		0.002	U	0.2	U																
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg		0.002	U	0.2	U																
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg		0.002	U	0.2	U																
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg		0.002	U	0.2	U																
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg		0.002	U	0.2	U																
VOCs	1,2-Dichloroethane	107-06-2	mg/kg		0.002	U	0.2	U																
VOCs	1,2-Dichloropropane	78-87-5	mg/kg		0.002	U	0.2	U																
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg		0.002	U	0.2	U																
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg		0.002	U	0.2	U																
VOCs	1,3-Dichloropropane	142-28-9	mg/kg		0.002	U	0.2	U																
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg		0.002	U	0.2	U																
VOCs	1,4-Dioxane	123-91-1	mg/kg		0.2	U	20	U																
VOCs	1-Chlorohexane	544-10-5	mg/kg																					
VOCs	2,2-Dichloropropane	594-20-7	mg/kg		0.002	U	0.2	U																
VOCs	2-Chlorotoluene	95-49-8	mg/kg		0.002	U	0.2	U																
VOCs	2-Hexanone	591-78-6	mg/kg		0.016	U	1.6	U																
VOCs	4-Chlorotoluene	106-43-4	mg/kg		0.002	U	0.2	U																
VOCs	4-Isopropyltoluene	99-87-6	mg/kg		0.002	U	0.2	U																
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg		0.016	U	1.6	U																
VOCs	Acetone	67-64-1	mg/kg		0.2	U	20	U																
VOCs	Benzene	71-43-2	mg/kg		0.002	U	0.2	U																
VOCs	Bromobenzene	108-86-1	mg/kg		0.002	U	0.2	U																
VOCs	Bromoform	75-25-2	mg/kg		0.002	U	0.2	U																
VOCs	Bromomethane	74-83-9	mg/kg		0.0039	U	0.41	U																
VOCs	Carbon disulfide	75-15-0	mg/kg		0.039	U	4.1	U																
VOCs	Carbon tetrachloride	56-23-5	mg/kg		0.002	U	0.2	U																
VOCs	Chlorobenzene	108-90-7	mg/kg		0.002	U	0.2	U																
VOCs	Chlorobromomethane	74-97-5	mg/kg		0.002	U	0.2	U																
VOCs	Chlorodibromomethane	124-48-1	mg/kg		0.002	U	0.2	U																
VOCs	Chloroethane	75-00-3	mg/kg		0.0039	U	0.41	U																
VOCs	Chloroform	67-66-3	mg/kg		0.002	U	0.2	U																
VOCs	Chloromethane	74-87-3	mg/kg		0.0039	U	0.41	U																
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg		0.002	U	0.2	U																
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg		0.002	U	0.2	U																
VOCs	Dibromomethane	74-95-3	mg/kg		0.002	U	0.2	U																
VOCs	Dichlorobromomethane	75-27-4	mg/kg		0.002	U	0.2	U																
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg		0.002	U	0.2	U																
VOCs	DIETHYL ETHER	60-29-7	mg/kg		0.002	U	0.2	U																
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg		0.002	U	0.2	U																
VOCs	Ethylbenzene	100-41-4	mg/kg		0.015		0.2	U																
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg		0.002	U	0.2	U																
VOCs	Hexachlorobutadiene	87-68-3	mg/kg		0.002	U	0.2	U																
VOCs	Hexanal	0066-25-1	mg/kg																					
VOCs	Isopropylbenzene	98-82-8	mg/kg		0.002	U	0.2	U																
VOCs	m&p-Xylenes	NA	mg/kg		0.073		0.2	U																
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg		0.016	U	1.6	U																
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg		0.0039	U	0.41	U																
VOCs	Methylene Chloride	75-09-2	mg/kg		0.0039	U	0.41	U																
VOCs	n-Butylbenzene	104-51-8	mg/kg		0.002	U	0.2	U																
VOCs	N-Propylbenzene	103-65-1	mg/kg		0.002	U	0.2	U																
VOCs	Naphthalene	91-20-3	mg/kg		0.02	U	2	U																
VOCs	o-Xylene	95-47-6	mg/kg		0.002	U	0.2	U																
VOCs	sec-Butylbenzene	135-98-8	mg/kg		0.002	U	0.2	U																
VOCs	Styrene	100-42-5	mg/kg		0.002	U	0.2	U																
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg		0.002	U	0.2	U																
VOCs	tert-Butylbenzene	98-06-6	mg/kg		0.002	U	0.2	U																
VOCs	Tetrachloroethene	127-18-4	mg/kg		0.002	U	0.2	U																
VOCs	Tetrahydrofuran	109-99-9	mg/kg		0.013	U	1.4	U																
VOCs	Toluene	108-88-3	mg/kg		0.002	U	0.2	U																
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg		0.002	U	0.2	U																
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg		0.002	U	0.2	U																
VOCs	Trichloroethene	79-01-6	mg/kg		0.002	U	0.2	U																
VOCs	Trichlorofluoromethane	75-69-4	mg/kg		0.002	U	0.2	U																
VOCs	Vinyl chloride	75-01-4	mg/kg		0.0039	U	0.41	U																
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																					
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																					
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																					
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																					
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																					
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																					
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																					
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																					
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																					
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																					
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																					
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																					
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																					
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																					
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																					
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																					

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-58		B-59		B-59		B-61		B-61		B-62		B-62		B-63		B-65		B-65	
			Field Sample ID	C100604-B58-S8		C100604-B59-S4		C100604-B59-S5		C100604-B61-S1		C100604-B61-S2		C100604-B62-S2		C100604-B62-S3		C100604-B63-S4		C100604-B65-S3		C100604-B65-S4	
			Sample Start Depth	14		5		6		0		2		2		4		6		4		6	
			Sample End Depth	14.83		6		6.83		2		3.25		4		5.92		6.42		6		8	
			Sample Date	10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-58		B-59		B-59		B-61		B-61		B-62		B-62		B-63		B-65		B-65	
				Field Sample ID	C100604-B58-S8		C100604-B59-S4		C100604-B59-S5		C100604-B61-S1		C100604-B61-S2		C100604-B62-S2		C100604-B62-S3		C100604-B63-S4		C100604-B65-S3		C100604-B65-S4	
				Sample Start Depth	14		5		6		0		2		2		4		6		4		6	
				Sample End Depth	14.83		6		6.83		2		3.25		4		5.92		6.42		6		8	
				Sample Date	10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004		10/6/2004	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																					
VPH	Ethylbenzene	100-41-4	mg/kg																					
VPH	m&p-Xylenes	NA	mg/kg																					
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																					
VPH	Naphthalene	91-20-3	mg/kg																					
VPH	o-Xylene	95-47-6	mg/kg																					
VPH	Toluene	108-88-3	mg/kg																					
VPH	Total VPH	NA	mg/kg																					
Metals	Aluminum	7429-90-5	mg/kg																					
Metals	Antimony	7440-36-0	mg/kg		1.1	U			3.9		1.2	U	1.2	U	2.4	U	2.2	U	2.4	U	2.3	U	2.6	U
Metals	Arsenic	7440-38-2	mg/kg		14				47		44		35		30		190		17		30		97	
Metals	Barium	7440-39-3	mg/kg																					
Metals	Beryllium	7440-41-7	mg/kg		0.11	U			0.1	U	0.12	U	0.12	U	0.24	U	0.22	U	0.24	U	0.23	U	0.26	U
Metals	Cadmium	7440-43-9	mg/kg																					
Metals	Calcium	7440-70-2	mg/kg																					
Metals	Chromium	7440-47-3	mg/kg		80				210		61		290		200		420		130		190		82	
Metals	Cobalt	7440-48-4	mg/kg																					
Metals	Copper	7440-50-8	mg/kg		14				200		32		110		550		1100		190		350		74	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg		1.9				0.34	U	1.2		54		7.4		4.5		3.8		11		5.8	
Metals	Iron	7439-89-6	mg/kg																					
Metals	Lead	7439-92-1	mg/kg		4.4				1,500		11		100		20		31		10		35		12	
Metals	Magnesium	7439-95-4	mg/kg																					
Metals	Manganese	7439-96-5	mg/kg																					
Metals	Mercury	7439-97-6	mg/kg																					
Metals	Nickel	7440-02-0	mg/kg																					
Metals	Potassium	7440-09-7	mg/kg																					
Metals	Selenium	7782-49-2	mg/kg																					
Metals	Silver	7440-22-4	mg/kg																					
Metals	Sodium	7440-23-5	mg/kg																					
Metals	Thallium	7440-28-0	mg/kg																					
Metals	Vanadium	7440-62-2	mg/kg																					
Metals	Zinc	7440-66-6	mg/kg																					
Cyanide	Cyanide, Reactive	NA	mg/kg																					
Other	Sulfide, Reactive	NA	mg/kg																					
Other	TOTAL ORGANIC CARBON	NA	mg/kg																					
TIC	.alpha.-Pinene	NA	mg/kg																					
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																					
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																					
TIC	1-4-Methanonaphthalene	NA	mg/kg																					
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																					
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																					
TIC	1-Methyl-Pyrene	NA	mg/kg																					
TIC	1S-.alpha.-Pinene	NA	mg/kg																					
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																					
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																					
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																					
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																					
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																					
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																					
TIC	2-Methylanthracene	613-12-7	mg/kg																					
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																					
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																					
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																					
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																					
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																					
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																					
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																					
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																					
TIC	Cyclic octaatomic sulfur	NA	mg/kg																					
TIC	Cyclopentane, methyl-	NA	mg/kg																					
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																					
TIC	Hexanal	0066-25-1	mg/kg																					
TIC	Pentane, 2-methyl-	NA	mg/kg																					
TIC	Pentane, 3-methyl-	NA	mg/kg																					
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																					

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-66		B-66		B-67		B-67		B-68		B-68		B-68		B-69		B-69		B-69		B-70	
			Field Sample ID	C100704-B66-S2		C100704-B66-S3		C100704-B67-S1		C100704-B67-S2		C100704-B68-S3		C100704-B68-S4		C100704-B68-S6		C100704-B69-S3		C100704-B69-S5		C100704-B69-S6		C100704-B70-S3	
			Sample Start Depth	2		4		0.25		2		4		6		10		4		8		10		4	
			Sample End Depth	4		5.83		2		3.92		6		8		10.92		6		10		11.92		6	
			Sample Date	10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	1,4-Dioxane	123-91-1	mg/kg															0.24	U	0.23	U	0.24	U	0.23	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	2-Hexanone	591-78-6	mg/kg															0.019	U	0.018	U	0.019	U	0.018	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg															0.019	U	0.018	U	0.019	U	0.018	U
VOCs	Acetone	67-64-1	mg/kg															0.24	U	0.23	U	0.24	U	0.23	U
VOCs	Benzene	71-43-2	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Bromobenzene	108-86-1	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Bromoform	75-25-2	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Bromomethane	74-83-9	mg/kg															0.0048	U	0.0045	U	0.0047	U	0.0045	U
VOCs	Carbon disulfide	75-15-0	mg/kg															0.048	U	0.045	U	0.047	U	0.045	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Chlorobenzene	108-90-7	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Chlorobromomethane	74-97-5	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Chloroethane	75-00-3	mg/kg															0.0048	U	0.0045	U	0.0047	U	0.0045	U
VOCs	Chloroform	67-66-3	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Chloromethane	74-87-3	mg/kg															0.0048	U	0.0045	U	0.0047	U	0.0045	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Chloroethane	75-00-3	mg/kg															0.0048	U	0.0045	U	0.0047	U	0.0045	U
VOCs	Chloroform	67-66-3	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Chloromethane	74-87-3	mg/kg															0.0048	U	0.0045	U	0.0047	U	0.0045	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Dibromomethane	74-95-3	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Ethylbenzene	100-41-4	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	m&p-Xylenes	NA	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg															0.019	U	0.018	U	0.019	U	0.018	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg															0.0048	U	0.0045	U	0.0047	U	0.0045	U
VOCs	Methylene Chloride	75-09-2	mg/kg															0.0048	U	0.0045	U	0.0047	U	0.0045	U
VOCs	n-Butylbenzene	104-51-8	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	N-Propylbenzene	103-65-1	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Naphthalene	91-20-3	mg/kg															0.024	U	0.023	U	0.024	U	0.023	U
VOCs	o-Xylene	95-47-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Styrene	100-42-5	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Tetrachloroethene	127-18-4	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg															0.017	U	0.016	U	0.016	U	0.016	U
VOCs	Toluene	108-88-3	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Trichloroethene	79-01-6	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg															0.0024	U	0.0023	U	0.0024	U	0.0023	U
VOCs	Vinyl chloride	75-01-4	mg/kg															0.0048	U	0.0045	U	0.0047	U	0.0045	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-66		B-66		B-67		B-67		B-68		B-68		B-68		B-69		B-69		B-69		B-70	
			Field Sample ID	C100704-B66-S2		C100704-B66-S3		C100704-B67-S1		C100704-B67-S2		C100704-B68-S3		C100704-B68-S4		C100704-B68-S6		C100704-B69-S3		C100704-B69-S5		C100704-B69-S6		C100704-B70-S3	
			Sample Start Depth	2		4		0.25		2		4		6		10		4		8		10		4	
			Sample End Depth	4		5.83		2		3.92		6		8		10.92		6		10		11.92		6	
			Sample Date	10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-66		B-66		B-67		B-67		B-68		B-68		B-68		B-69		B-69		B-69		B-70	
				Field Sample ID	C100704-B66-S2		C100704-B66-S3		C100704-B67-S1		C100704-B67-S2		C100704-B68-S3		C100704-B68-S4		C100704-B68-S6		C100704-B69-S3		C100704-B69-S5		C100704-B69-S6		C100704-B70-S3	
				Sample Start Depth	2		4		0.25		2		4		6		10		4		8		10		4	
				Sample End Depth	4		5.83		2		3.92		6		8		10.92		6		10		11.92		6	
				Sample Date	10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004		10/7/2004	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																						
VPH	Ethylbenzene	100-41-4	mg/kg																						
VPH	m&p-Xylenes	NA	mg/kg																						
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VPH	Naphthalene	91-20-3	mg/kg																						
VPH	o-Xylene	95-47-6	mg/kg																						
VPH	Toluene	108-88-3	mg/kg																						
VPH	Total VPH	NA	mg/kg																						
Metals	Aluminum	7429-90-5	mg/kg																						
Metals	Antimony	7440-36-0	mg/kg	2.5	U	2.4	U	2.4	U	2.4	U	2.3	U	2.2	U	2.4	U	2.2	U	2.2	U	2.5	U	2.3	U
Metals	Arsenic	7440-38-2	mg/kg	78		170		48		75		39		82		37		39		40		72		22	
Metals	Barium	7440-39-3	mg/kg																						
Metals	Beryllium	7440-41-7	mg/kg	0.25	U	0.24	U	0.24	U	0.24	U	0.23	U	0.22	U	0.24	U	0.22	U	0.22	U	0.25	U	0.23	U
Metals	Cadmium	7440-43-9	mg/kg																						
Metals	Calcium	7440-70-2	mg/kg																						
Metals	Chromium	7440-47-3	mg/kg	70		460		72		690		42		53		680		690		340		1000		26	
Metals	Cobalt	7440-48-4	mg/kg																						
Metals	Copper	7440-50-8	mg/kg	26		310		31		350		14		20		410		140		140		280		26	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	1.3		6.1		6		1.5		6.2		0.48		120		50		27		70		0.92	
Metals	Iron	7439-89-6	mg/kg																						
Metals	Lead	7439-92-1	mg/kg	9.4		8.1		11		8		5.6		7.9		15		15		9.6		17		8.1	
Metals	Magnesium	7439-95-4	mg/kg																						
Metals	Manganese	7439-96-5	mg/kg																						
Metals	Mercury	7439-97-6	mg/kg																						
Metals	Nickel	7440-02-0	mg/kg																						
Metals	Potassium	7440-09-7	mg/kg																						
Metals	Selenium	7782-49-2	mg/kg																						
Metals	Silver	7440-22-4	mg/kg																						
Metals	Sodium	7440-23-5	mg/kg																						
Metals	Thallium	7440-28-0	mg/kg																						
Metals	Vanadium	7440-62-2	mg/kg																						
Metals	Zinc	7440-66-6	mg/kg																						
Cyanide	Cyanide, Reactive	NA	mg/kg																						
Other	Sulfide, Reactive	NA	mg/kg																						
Other	TOTAL ORGANIC CARBON	NA	mg/kg																						
TIC	.alpha.-Pinene	NA	mg/kg																						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																						
TIC	1-4-Methanonaphthalene	NA	mg/kg																						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																						
TIC	1-Methyl-Pyrene	NA	mg/kg																						
TIC	1S-.alpha.-Pinene	NA	mg/kg																						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																						
TIC	2-Methylanthracene	613-12-7	mg/kg																						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																						
TIC	Cyclic octaatomic sulfur	NA	mg/kg																						
TIC	Cyclopentane, methyl-	NA	mg/kg																						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																						
TIC	Hexanal	0066-25-1	mg/kg																						
TIC	Pentane, 2-methyl-	NA	mg/kg																						
TIC	Pentane, 3-methyl-	NA	mg/kg																						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-70		B-70		B-71		B-71		B-71		B-72		B-73		B-74		B-74		B-74		B-75	
			Field Sample ID	C100704-B70-S4		C100704-B70-S7		C100804-B71-S2		C100804-B71-S4		C100804-B71-S8		C101104-B72-S2A		C101104-B73-S2A		C101104-B74-S2		C101104-B74-S4		C101104-B74-S6		C101104-B75-S3	
			Sample Start Depth	6		12		2		6		14		5		5		2		6		10		4	
			Sample End Depth	8		13.42		4		8		15.08		6.5		6		4		8		12		6	
			Sample Date	10/7/2004		10/7/2004		10/8/2004		10/8/2004		10/8/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.22	U	0.22	U	0.24	U	0.21	U	0.23	U												
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	2-Hexanone	591-78-6	mg/kg	0.018	U	0.018	U	0.02	U	0.016	U	0.018	U												
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.018	U	0.018	U	0.02	U	0.016	U	0.018	U												
VOCs	Acetone	67-64-1	mg/kg	0.22	U	0.22	U	0.24	U	0.21	U	0.23	U												
VOCs	Benzene	71-43-2	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Bromobenzene	108-86-1	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Bromoform	75-25-2	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Bromomethane	74-83-9	mg/kg	0.0044	U	0.0044	U	0.0049	U	0.0041	U	0.0045	U												
VOCs	Carbon disulfide	75-15-0	mg/kg	0.044	U	0.044	U	0.049	U	0.041	U	0.045	U												
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Chloroethane	75-00-3	mg/kg	0.0044	U	0.0044	U	0.0049	U	0.0041	U	0.0045	U												
VOCs	Chloroform	67-66-3	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Chloromethane	74-87-3	mg/kg	0.0044	U	0.0044	U	0.0049	U	0.0041	U	0.0045	U												
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0041													
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Dibromomethane	74-95-3	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	m&p-Xylenes	NA	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.018	U	0.018	U	0.02	U	0.016	U	0.018	U												
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0044	U	0.0044	U	0.0049	U	0.0041	U	0.0045	U												
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0044	U	0.0044	U	0.0049	U	0.0041	U	0.0045	U												
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Naphthalene	91-20-3	mg/kg	0.022	U	0.022	U	0.024	U	0.021	U	0.023	U												
VOCs	o-Xylene	95-47-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Styrene	100-42-5	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.015	U	0.015	U	0.017	U	0.014	U	0.016	U												
VOCs	Toluene	108-88-3	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Trichloroethene	79-01-6	mg/kg	0.0022	U	0.0022	U	0.033		0.0032		0.008													
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0022	U	0.0022	U	0.0024	U	0.0021	U	0.0023	U												
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0044	U	0.0044	U	0.0049	U	0.0041	U	0.0045	U												
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-70		B-70		B-71		B-71		B-71		B-72		B-73		B-74		B-74		B-74		B-75	
			Field Sample ID	C100704-B70-S4		C100704-B70-S7		C100804-B71-S2		C100804-B71-S4		C100804-B71-S8		C101104-B72-S2A		C101104-B73-S2A		C101104-B74-S2		C101104-B74-S4		C101104-B74-S6		C101104-B75-S3	
			Sample Start Depth	6		12		2		6		14		5		5		2		6		10		4	
			Sample End Depth	8		13.42		4		8		15.08		6.5		6		4		8		12		6	
			Sample Date	10/7/2004		10/7/2004		10/8/2004		10/8/2004		10/8/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-70		B-70		B-71		B-71		B-71		B-72		B-73		B-74		B-74		B-74		B-75	
			Field Sample ID	C100704-B70-S4		C100704-B70-S7		C100804-B71-S2		C100804-B71-S4		C100804-B71-S8		C101104-B72-S2A		C101104-B73-S2A		C101104-B74-S2		C101104-B74-S4		C101104-B74-S6		C101104-B75-S3	
			Sample Start Depth	6		12		2		6		14		5		5		2		6		10		4	
			Sample End Depth	8		13.42		4		8		15.08		6.5		6		4		8		12		6	
			Sample Date	10/7/2004		10/7/2004		10/8/2004		10/8/2004		10/8/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004		10/11/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																						
VPH	Ethylbenzene	100-41-4	mg/kg																						
VPH	m&p-Xylenes	NA	mg/kg																						
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VPH	Naphthalene	91-20-3	mg/kg																						
VPH	o-Xylene	95-47-6	mg/kg																						
VPH	Toluene	108-88-3	mg/kg																						
VPH	Total VPH	NA	mg/kg																						
Metals	Aluminum	7429-90-5	mg/kg																						
Metals	Antimony	7440-36-0	mg/kg	3		2.2	U	2.3	U	2.3	U	1.2	U	4.1		4		0.57	B	0.3	B	1.4	B	0.78	B
Metals	Arsenic	7440-38-2	mg/kg	50		59		76		19		23		37		36		17		23		75		56	
Metals	Barium	7440-39-3	mg/kg																						
Metals	Beryllium	7440-41-7	mg/kg	0.23	U	0.22	U	0.23	U	0.23	U	0.12	U	0.22	U	0.049	B	0.24	U	0.04	B	0.24	U	0.27	U
Metals	Cadmium	7440-43-9	mg/kg																						
Metals	Calcium	7440-70-2	mg/kg																						
Metals	Chromium	7440-47-3	mg/kg	710		260		160		120		45		1100		1100		22		39		910		560	
Metals	Cobalt	7440-48-4	mg/kg																						
Metals	Copper	7440-50-8	mg/kg	190		160		170		260		120		290		140		12		18		390		95	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	22		30		9.7		5.5		4.6		330		220		2.9	U	0.28		130		11	
Metals	Iron	7439-89-6	mg/kg																						
Metals	Lead	7439-92-1	mg/kg	4.1		9.2		6.6		4		5.2		110		31		5.8		6.2		9.7		5.2	
Metals	Magnesium	7439-95-4	mg/kg																						
Metals	Manganese	7439-96-5	mg/kg																						
Metals	Mercury	7439-97-6	mg/kg																						
Metals	Nickel	7440-02-0	mg/kg																						
Metals	Potassium	7440-09-7	mg/kg																						
Metals	Selenium	7782-49-2	mg/kg																						
Metals	Silver	7440-22-4	mg/kg																						
Metals	Sodium	7440-23-5	mg/kg																						
Metals	Thallium	7440-28-0	mg/kg																						
Metals	Vanadium	7440-62-2	mg/kg																						
Metals	Zinc	7440-66-6	mg/kg																						
Cyanide	Cyanide, Reactive	NA	mg/kg																						
Other	Sulfide, Reactive	NA	mg/kg																						
Other	TOTAL ORGANIC CARBON	NA	mg/kg																						
TIC	.alpha.-Pinene	NA	mg/kg																						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																						
TIC	1-4-Methanonaphthalene	NA	mg/kg																						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																						
TIC	1-Methyl-Pyrene	NA	mg/kg																						
TIC	1S-.alpha.-Pinene	NA	mg/kg																						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																						
TIC	2-Methylanthracene	613-12-7	mg/kg																						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																						
TIC	Cyclic octaatomic sulfur	NA	mg/kg																						
TIC	Cyclopentane, methyl-	NA	mg/kg																						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																						
TIC	Hexanal	0066-25-1	mg/kg																						
TIC	Pentane, 2-methyl-	NA	mg/kg																						
TIC	Pentane, 3-methyl-	NA	mg/kg																						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-75		B-75		B-76		B-76		B-76		B-77		B-77		B-77		B-78		B-78		B-78	
			Field Sample ID	C101104-B75-S4		C101104-B75-S5		C101204-B76-S3		C101204-B76-S5		C101204-B76-S7		C101204-B77-S3		C101204-B77-S5		C101204-B77-S6		C101204-B78-S3		C101204-B78-S5		C101204-B78-S6	
			Sample Start Depth	6		8		4		8		12		4		8		10		4		8		10	
			Sample End Depth	8		10		6		10		12.92		6		10		12		6		10		11.42	
			Sample Date	10/11/2004		10/11/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																	0.004	U				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																	0.004	U				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																	0.004	U				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																	0.004	U				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																	0.004	U				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																	0.004	U				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																	0.004	U				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																	0.004	U				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																	0.004	U				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																	0.004	U				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																	0.004	U				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																	0.004	U				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																	0.004	U				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																	0.004	U				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																	0.004	U				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																	0.004	U				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																	0.004	U				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																	0.004	U				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																	0.004	U				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																	0.004	U				
VOCs	1,4-Dioxane	123-91-1	mg/kg																	0.4	U				
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																	0.004	U				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																	0.004	U				
VOCs	2-Hexanone	591-78-6	mg/kg																	0.032	U				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																	0.004	U				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																	0.004	U				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																	0.032	U				
VOCs	Acetone	67-64-1	mg/kg																	0.4	U				
VOCs	Benzene	71-43-2	mg/kg																	0.004	U				
VOCs	Bromobenzene	108-86-1	mg/kg																	0.004	U				
VOCs	Bromoform	75-25-2	mg/kg																	0.004	U				
VOCs	Bromomethane	74-83-9	mg/kg																	0.008	U				
VOCs	Carbon disulfide	75-15-0	mg/kg																	0.08	U				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																	0.004	U				
VOCs	Chlorobenzene	108-90-7	mg/kg																	0.004	U				
VOCs	Chlorobromomethane	74-97-5	mg/kg																	0.004	U				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																	0.004	U				
VOCs	Chloroethane	75-00-3	mg/kg																	0.008	U				
VOCs	Chloroform	67-66-3	mg/kg																	0.004	U				
VOCs	Chloromethane	74-87-3	mg/kg																	0.008	U				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																	0.004	U				
VOCs	Chloroethane	75-00-3	mg/kg																	0.008	U				
VOCs	Chloroform	67-66-3	mg/kg																	0.004	U				
VOCs	Chloromethane	74-87-3	mg/kg																	0.008	U				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																	0.004	U				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																	0.004	U				
VOCs	Dibromomethane	74-95-3	mg/kg																	0.004	U				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																	0.004	U				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																	0.004	U				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																	0.004	U				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																	0.004	U				
VOCs	Ethylbenzene	100-41-4	mg/kg																	0.004	U				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																	0.004	U				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																	0.004	U				
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg																	0.004	U				
VOCs	m&p-Xylenes	NA	mg/kg																	0.004	U				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																	0.032	U				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																	0.008	U				
VOCs	Methylene Chloride	75-09-2	mg/kg																	0.008	U				
VOCs	n-Butylbenzene	104-51-8	mg/kg																	0.004	U				
VOCs	N-Propylbenzene	103-65-1	mg/kg																	0.004	U				
VOCs	Naphthalene	91-20-3	mg/kg																	0.04	U				
VOCs	o-Xylene	95-47-6	mg/kg																	0.004	U				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																	0.004	U				
VOCs	Styrene	100-42-5	mg/kg																	0.004	U				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																	0.004	U				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																	0.004	U				
VOCs	Tetrachloroethene	127-18-4	mg/kg																	0.004	U				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																	0.027	U				
VOCs	Toluene	108-88-3	mg/kg																	0.004	U				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																	0.004	U				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																	0.004	U				
VOCs	Trichloroethene	79-01-6	mg/kg																	0.004	U				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																	0.004	U				
VOCs	Vinyl chloride	75-01-4	mg/kg																	0.008	U				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-75		B-75		B-76		B-76		B-76		B-77		B-77		B-77		B-78		B-78		B-78	
				Field Sample ID	C101104-B75-S4		C101104-B75-S5		C101204-B76-S3		C101204-B76-S5		C101204-B76-S7		C101204-B77-S3		C101204-B77-S5		C101204-B77-S6		C101204-B78-S3		C101204-B78-S5		C101204-B78-S6	
				Sample Start Depth	6		8		4		8		12		4		8		10		4		8		10	
				Sample End Depth	8		10		6		10		12.92		6		10		12		6		10		11.42	
				Sample Date	10/11/2004		10/11/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																							
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																							
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																							
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																							
SVOCs	3-NITROANILINE	99-09-2	mg/kg																							
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																							
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																							
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																							
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																							
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																							
SVOCs	4-NITROANILINE	100-01-6	mg/kg																							
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																							
SVOCs	Acenaphthene	83-32-9	mg/kg																							
SVOCs	Acenaphthylene	208-96-8	mg/kg																							
SVOCs	Acetophenone	98-86-2	mg/kg																							
SVOCs	Aniline	62-53-3	mg/kg																							
SVOCs	Anthracene	120-12-7	mg/kg																							
SVOCs	Azobenzene	103-33-3	mg/kg																							
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																							
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																							
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																							
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																							
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																							
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																							
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																							
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																							
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																							
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																							
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																							
SVOCs	CARBAZOLE	86-74-8	mg/kg																							
SVOCs	Chrysene	218-01-9	mg/kg																							
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																							
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																							
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																							
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																							
SVOCs	Diethyl phthalate	84-66-2	mg/kg																							
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																							
SVOCs	Fluoranthene	206-44-0	mg/kg																							
SVOCs	Fluorene	86-73-7	mg/kg																							
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																							
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																							
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																							
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																							
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																							
SVOCs	ISOPHORONE	78-59-1	mg/kg																							
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																							
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																							
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																							
SVOCs	Naphthalene	91-20-3	mg/kg																							
SVOCs	NITROBENZENE	98-95-3	mg/kg																							
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																							
SVOCs	Phenanthrene	85-01-8	mg/kg																							
SVOCs	PHENOL	108-95-2	mg/kg																							
SVOCs	Pyrene	129-00-0	mg/kg																							
PCBs	Aroclor 1016	12674-11-2	mg/kg																							
PCBs	Aroclor 1221	11104-28-2	mg/kg																							
PCBs	Aroclor 1232	11141-16-5	mg/kg																							
PCBs	Aroclor 1242	53469-21-9	mg/kg																							
PCBs	Aroclor 1248	12672-29-6	mg/kg																							
PCBs	Aroclor 1254	11097-69-1	mg/kg																							
PCBs	Aroclor 1260	11096-82-5	mg/kg																							
PCBs	PCB-1262	37324-23-5	mg/kg																							
PCBs	PCB-1268	11100-14-4	mg/kg																							
EPH	2-Methylnaphthalene	91-57-6	mg/kg																							
EPH	Acenaphthene	83-32-9	mg/kg																							
EPH	Acenaphthylene	208-96-8	mg/kg																							
EPH	Anthracene	120-12-7	mg/kg																							
EPH	Benzo[a]anthracene	56-55-3	mg/kg																							
EPH	Benzo[a]pyrene	50-32-8	mg/kg																							
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																							
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																							
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																							
EPH	C11-C22 Aromatics	NA	mg/kg																							
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																							
EPH	C19-C36 Aliphatics	NA	mg/kg																							
EPH	C9-C18 Aliphatics	NA	mg/kg																							
EPH	Chrysene	218-01-9	mg/kg																							
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																							
EPH	Fluoranthene	206-44-0	mg/kg																							
EPH	Fluorene	86-73-7	mg/kg																							
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																							
EPH	Naphthalene	91-20-3	mg/kg																							
EPH	Phenanthrene	85-01-8	mg/kg																							
EPH	Pyrene	129-00-0	mg/kg																							
EPH	Total EPH	NA	mg/kg																							
VPH	Benzene	71-43-2	mg/kg																							
VPH	C5-C8 Aliphatics	NA	mg/kg																							
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																							
VPH	C9-C10 Aromatics	NA	mg/kg																							

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-75		B-75		B-76		B-76		B-76		B-77		B-77		B-77		B-78		B-78		B-78	
				Field Sample ID	C101104-B75-S4		C101104-B75-S5		C101204-B76-S3		C101204-B76-S5		C101204-B76-S7		C101204-B77-S3		C101204-B77-S5		C101204-B77-S6		C101204-B78-S3		C101204-B78-S5		C101204-B78-S6	
				Sample Start Depth	6		8		4		8		12		4		8		10		4		8		10	
				Sample End Depth	8		10		6		10		12.92		6		10		12		6		10		11.42	
				Sample Date	10/11/2004		10/11/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004		10/12/2004	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																							
VPH	Ethylbenzene	100-41-4	mg/kg																							
VPH	m&p-Xylenes	NA	mg/kg																							
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																							
VPH	Naphthalene	91-20-3	mg/kg																							
VPH	o-Xylene	95-47-6	mg/kg																							
VPH	Toluene	108-88-3	mg/kg																							
VPH	Total VPH	NA	mg/kg																							
Metals	Aluminum	7429-90-5	mg/kg																							
Metals	Antimony	7440-36-0	mg/kg		0.95	B	0.54	B	1.3	B	0.93	B	0.92	B	1.3	B	1.5	B	1.3	B	1.2	B	1.1	B	0.8	B
Metals	Arsenic	7440-38-2	mg/kg		37		27		42		16		23		44		63		40		23		23		15	
Metals	Barium	7440-39-3	mg/kg																							
Metals	Beryllium	7440-41-7	mg/kg		0.27	U	0.12	B	0.23	U	0.091	B	0.043	B	0.26	U	0.29		0.27	U	0.29	U	0.26	U	0.23	U
Metals	Cadmium	7440-43-9	mg/kg																							
Metals	Calcium	7440-70-2	mg/kg																							
Metals	Chromium	7440-47-3	mg/kg		100		100		690		73		78		1200		710		890		1500		800		370	
Metals	Cobalt	7440-48-4	mg/kg																							
Metals	Copper	7440-50-8	mg/kg		200		170		45		44		25		71		160		550		130		95		85	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg		4.4		11		72		4.5		13		90		22		40		0.19	U	25		47	
Metals	Iron	7439-89-6	mg/kg																							
Metals	Lead	7439-92-1	mg/kg		8.5		8.1		19		5.6		11		11		10		15		180		8		13	
Metals	Magnesium	7439-95-4	mg/kg																							
Metals	Manganese	7439-96-5	mg/kg																							
Metals	Mercury	7439-97-6	mg/kg																							
Metals	Nickel	7440-02-0	mg/kg																							
Metals	Potassium	7440-09-7	mg/kg																							
Metals	Selenium	7782-49-2	mg/kg																							
Metals	Silver	7440-22-4	mg/kg																							
Metals	Sodium	7440-23-5	mg/kg																							
Metals	Thallium	7440-28-0	mg/kg																							
Metals	Vanadium	7440-62-2	mg/kg																							
Metals	Zinc	7440-66-6	mg/kg																							
Cyanide	Cyanide, Reactive	NA	mg/kg																							
Other	Sulfide, Reactive	NA	mg/kg																							
Other	TOTAL ORGANIC CARBON	NA	mg/kg																							
TIC	.alpha.-Pinene	NA	mg/kg																							
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																							
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																							
TIC	1-4-Methanonaphthalene	NA	mg/kg																							
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																							
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																							
TIC	1-Methyl-Pyrene	NA	mg/kg																							
TIC	1S-.alpha.-Pinene	NA	mg/kg																							
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																							
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																							
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																							
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																							
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																							
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																							
TIC	2-Methylanthracene	613-12-7	mg/kg																							
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																							
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																							
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																							
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																							
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																							
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																							
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																							
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																							
TIC	Cyclic octaatomic sulfur	NA	mg/kg																							
TIC	Cyclopentane, methyl-	NA	mg/kg																							
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																							
TIC	Hexanal	0066-25-1	mg/kg																							
TIC	Pentane, 2-methyl-	NA	mg/kg																							
TIC	Pentane, 3-methyl-	NA	mg/kg																							
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																							

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-80		B-80		B-80		B-81		B-82		B-82		B-82		B-83		B-83		B-83		B-84	
			Field Sample ID	C101304-B80-S3		C101304-B80-S4		C101304-B80-S5		C101304-B81-S5		C101304-B82-S3		C101304-B82-S4		C101304-B82-S6		C101304-B83-S3		C101304-B83-S5		C101304-B83-S6		C101404-B84-S2	
			Sample Start Depth	4		6		8		10		4		6		10		4		8		10		2	
			Sample End Depth	6		8		10		12		6		8		10.67		6		10		12		4	
			Sample Date	10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/14/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.3	U			0.2	U															0.21	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.024	U			0.016	U															0.017	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.024	U			0.016	U															0.017	U
VOCs	Acetone	67-64-1	mg/kg	0.3	U			0.2	U															0.21	U
VOCs	Benzene	71-43-2	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Bromoform	75-25-2	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Bromomethane	74-83-9	mg/kg	0.0059	U			0.004	U															0.0041	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.059	U			0.04	U															0.041	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Chloroethane	75-00-3	mg/kg	0.0059	U			0.004	U															0.0041	U
VOCs	Chloroform	67-66-3	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Chloromethane	74-87-3	mg/kg	0.0059	U			0.004	U															0.0041	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.003	U			0.002	U															0.0074	
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.003	U			0.002	U															0.0037	
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	m&p-Xylenes	NA	mg/kg	0.003	U			0.002	U															0.013	
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.024	U			0.016	U															0.017	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0059	U			0.004	U															0.0041	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0059	U			0.004	U															0.0041	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Naphthalene	91-20-3	mg/kg	0.03	U			0.02	U															0.021	U
VOCs	o-Xylene	95-47-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Styrene	100-42-5	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.02	U			0.014	U															0.014	U
VOCs	Toluene	108-88-3	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.003	U			0.002	U															0.0021	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0059	U			0.004	U															0.0041	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-80		B-80		B-80		B-81		B-82		B-82		B-82		B-83		B-83		B-83		B-84	
			Field Sample ID	C101304-B80-S3		C101304-B80-S4		C101304-B80-S5		C101304-B81-S5		C101304-B82-S3		C101304-B82-S4		C101304-B82-S6		C101304-B83-S3		C101304-B83-S5		C101304-B83-S6		C101404-B84-S2	
			Sample Start Depth	4		6		8		10		4		6		10		4		8		10		2	
			Sample End Depth	6		8		10		12		6		8		10.67		6		10		12		4	
			Sample Date	10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/14/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-80		B-80		B-80		B-81		B-82		B-82		B-82		B-83		B-83		B-83		B-84	
				Field Sample ID	C101304-B80-S3		C101304-B80-S4		C101304-B80-S5		C101304-B81-S5		C101304-B82-S3		C101304-B82-S4		C101304-B82-S6		C101304-B83-S3		C101304-B83-S5		C101304-B83-S6		C101404-B84-S2	
				Sample Start Depth	4		6		8		10		4		6		10		4		8		10		2	
				Sample End Depth	6		8		10		12		6		8		10.67		6		10		12		4	
				Sample Date	10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/13/2004		10/14/2004	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																							
VPH	Ethylbenzene	100-41-4	mg/kg																							
VPH	m&p-Xylenes	NA	mg/kg																							
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																							
VPH	Naphthalene	91-20-3	mg/kg																							
VPH	o-Xylene	95-47-6	mg/kg																							
VPH	Toluene	108-88-3	mg/kg																							
VPH	Total VPH	NA	mg/kg																							
Metals	Aluminum	7429-90-5	mg/kg																							
Metals	Antimony	7440-36-0	mg/kg	1.8	B	1	B	0.81	B	1.3	B	0.92	B	0.45	B	1.3	B	0.54	B	0.75	B	0.66	B	0.47	B		
Metals	Arsenic	7440-38-2	mg/kg	41		30		26		30		30		28		13		23		17		16		14			
Metals	Barium	7440-39-3	mg/kg																							
Metals	Beryllium	7440-41-7	mg/kg	0.28	U	0.25	U	0.072	B	0.24	U	0.23	U	0.26	U	0.26	U	0.086	B	0.065	B	0.26	U	0.03	B		
Metals	Cadmium	7440-43-9	mg/kg																							
Metals	Calcium	7440-70-2	mg/kg																							
Metals	Chromium	7440-47-3	mg/kg	1700		680		470		1200		56		36		70		26		36		100		160			
Metals	Cobalt	7440-48-4	mg/kg																							
Metals	Copper	7440-50-8	mg/kg	93		93		360		1100		18		11		170		12		85		75		130			
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	17		16		20		110		2.3		0.23		19		0.36		2.6		3.4		12			
Metals	Iron	7439-89-6	mg/kg																							
Metals	Lead	7439-92-1	mg/kg	7.6		7.5		4.4		11		7.2		4.9		5.4		5.2		4.5		9.5		21			
Metals	Magnesium	7439-95-4	mg/kg																							
Metals	Manganese	7439-96-5	mg/kg																							
Metals	Mercury	7439-97-6	mg/kg																							
Metals	Nickel	7440-02-0	mg/kg																							
Metals	Potassium	7440-09-7	mg/kg																							
Metals	Selenium	7782-49-2	mg/kg																							
Metals	Silver	7440-22-4	mg/kg																							
Metals	Sodium	7440-23-5	mg/kg																							
Metals	Thallium	7440-28-0	mg/kg																							
Metals	Vanadium	7440-62-2	mg/kg																							
Metals	Zinc	7440-66-6	mg/kg																							
Cyanide	Cyanide, Reactive	NA	mg/kg																							
Other	Sulfide, Reactive	NA	mg/kg																							
Other	TOTAL ORGANIC CARBON	NA	mg/kg																							
TIC	.alpha.-Pinene	NA	mg/kg																							
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																							
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																							
TIC	1-4-Methanonaphthalene	NA	mg/kg																							
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																							
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																							
TIC	1-Methyl-Pyrene	NA	mg/kg																							
TIC	1S-.alpha.-Pinene	NA	mg/kg																							
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																							
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																							
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																							
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																							
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																							
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																							
TIC	2-Methylanthracene	613-12-7	mg/kg																							
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																							
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																							
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																							
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																							
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																							
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																							
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																							
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																							
TIC	Cyclic octaatomic sulfur	NA	mg/kg																							
TIC	Cyclopentane, methyl-	NA	mg/kg																							
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																							
TIC	Hexanal	0066-25-1	mg/kg																							
TIC	Pentane, 2-methyl-	NA	mg/kg																							
TIC	Pentane, 3-methyl-	NA	mg/kg																							
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																							

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-84		B-84		B-85		B-85		B-85		B-88		B-88		B-88		B-89		B-89		B-89	
			Field Sample ID	C101404-B84-S4		C101404-B84-S6		C101404-B85-S2		C101404-B85-S3		C101404-B85-S5		C101504-B88-S1		C101504-B88-S2		C101504-B88-S3		C101504-B89-S1		C101504-B89-S2		C101504-B89-S3	
			Sample Start Depth	6		10		2		4		8		0		2		4		0		2		4	
			Sample End Depth	8		12		4		6		10		2		4		6		2		4		6	
			Sample Date	10/14/2004		10/14/2004		10/14/2004		10/14/2004		10/14/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0023	U	0.002	U																		
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0023	U	0.002	U																		
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0023	U	0.002	U																		
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0023	U	0.002	U																		
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0023	U	0.002	U																		
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0023	U	0.002	U																		
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0023	U	0.002	U																		
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0023	U	0.002	U																		
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0023	U	0.002	U																		
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0023	U	0.002	U																		
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0023	U	0.002	U																		
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0023	U	0.002	U																		
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.23	U	0.2	U																		
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0023	U	0.002	U																		
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0023	U	0.002	U																		
VOCs	2-Hexanone	591-78-6	mg/kg	0.018	U	0.016	U																		
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0023	U	0.002	U																		
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0023	U	0.002	U																		
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.018	U	0.016	U																		
VOCs	Acetone	67-64-1	mg/kg	0.23	U	0.2	U																		
VOCs	Benzene	71-43-2	mg/kg	0.0023	U	0.002	U																		
VOCs	Bromobenzene	108-86-1	mg/kg	0.0023	U	0.002	U																		
VOCs	Bromoform	75-25-2	mg/kg	0.0023	U	0.002	U																		
VOCs	Bromomethane	74-83-9	mg/kg	0.0045	U	0.004	U																		
VOCs	Carbon disulfide	75-15-0	mg/kg	0.045	U	0.04	U																		
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0023	U	0.002	U																		
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0023	U	0.002	U																		
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0023	U	0.002	U																		
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0023	U	0.002	U																		
VOCs	Chloroethane	75-00-3	mg/kg	0.0045	U	0.004	U																		
VOCs	Chloroform	67-66-3	mg/kg	0.0023	U	0.002	U																		
VOCs	Chloromethane	74-87-3	mg/kg	0.0045	U	0.004	U																		
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0023	U	0.0031																			
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0023	U	0.002	U																		
VOCs	Dibromomethane	74-95-3	mg/kg	0.0023	U	0.002	U																		
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0023	U	0.002	U																		
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0023	U	0.002	U																		
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0023	U	0.002	U																		
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0023	U	0.002	U																		
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0023	U	0.002	U																		
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0023	U	0.002	U																		
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0023	U	0.002	U																		
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0023	U	0.002	U																		
VOCs	m&p-Xylenes	NA	mg/kg	0.0023	U	0.002	U																		
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.018	U	0.016	U																		
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0045	U	0.004	U																		
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0045	U	0.004	U																		
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0023	U	0.002	U																		
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0023	U	0.002	U																		
VOCs	Naphthalene	91-20-3	mg/kg	0.023	U	0.02	U																		
VOCs	o-Xylene	95-47-6	mg/kg	0.0023	U	0.002	U																		
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0023	U	0.002	U																		
VOCs	Styrene	100-42-5	mg/kg	0.0023	U	0.002	U																		
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0023	U	0.002	U																		
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0023	U	0.002	U																		
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0023	U	0.002	U																		
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.015	U	0.014	U																		
VOCs	Toluene	108-88-3	mg/kg	0.0023	U	0.002	U																		
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0023	U	0.002	U																		
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0023	U	0.002	U																		
VOCs	Trichloroethene	79-01-6	mg/kg	0.0023	U	0.0085																			
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0023	U	0.002	U																		
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0045	U	0.004	U																		
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-84		B-84		B-85		B-85		B-85		B-88		B-88		B-88		B-89		B-89		B-89	
			Field Sample ID	C101404-B84-S4		C101404-B84-S6		C101404-B85-S2		C101404-B85-S3		C101404-B85-S5		C101504-B88-S1		C101504-B88-S2		C101504-B88-S3		C101504-B89-S1		C101504-B89-S2		C101504-B89-S3	
			Sample Start Depth	6		10		2		4		8		0		2		4		0		2		4	
			Sample End Depth	8		12		4		6		10		2		4		6		2		4		6	
			Sample Date	10/14/2004		10/14/2004		10/14/2004		10/14/2004		10/14/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-84		B-84		B-85		B-85		B-85		B-88		B-88		B-88		B-89		B-89		B-89	
				Field Sample ID	C101404-B84-S4		C101404-B84-S6		C101404-B85-S2		C101404-B85-S3		C101404-B85-S5		C101504-B88-S1		C101504-B88-S2		C101504-B88-S3		C101504-B89-S1		C101504-B89-S2		C101504-B89-S3	
				Sample Start Depth	6		10		2		4		8		0		2		4		0		2		4	
				Sample End Depth	8		12		4		6		10		2		4		6		2		4		6	
				Sample Date	10/14/2004		10/14/2004		10/14/2004		10/14/2004		10/14/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004		10/15/2004	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																							
VPH	Ethylbenzene	100-41-4	mg/kg																							
VPH	m&p-Xylenes	NA	mg/kg																							
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																							
VPH	Naphthalene	91-20-3	mg/kg																							
VPH	o-Xylene	95-47-6	mg/kg																							
VPH	Toluene	108-88-3	mg/kg																							
VPH	Total VPH	NA	mg/kg																							
Metals	Aluminum	7429-90-5	mg/kg																							
Metals	Antimony	7440-36-0	mg/kg	0.28	B	0.63	B	0.26	B	0.26	B	0.66	B	0.26	B	2.7	U	0.46	B	0.33	B	0.23	B	0.62	B		
Metals	Arsenic	7440-38-2	mg/kg	43		61		19		22		94		34		34		52		17		18		19			
Metals	Barium	7440-39-3	mg/kg																							
Metals	Beryllium	7440-41-7	mg/kg	0.11	B	0.026	B	0.087	B	0.043	B	0.15	U	0.13	B	0.044	B	0.24	U	0.22	U	0.26	U	0.25	U		
Metals	Cadmium	7440-43-9	mg/kg																							
Metals	Calcium	7440-70-2	mg/kg																							
Metals	Chromium	7440-47-3	mg/kg	85		49		110		42		200		29		130		230		57		62		230			
Metals	Cobalt	7440-48-4	mg/kg																							
Metals	Copper	7440-50-8	mg/kg	17		130		100		12		630		15		160		430		15		91		310			
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	3.4		10		19		7.8		16		0.25		17		37		0.22	U	2.4		13			
Metals	Iron	7439-89-6	mg/kg																							
Metals	Lead	7439-92-1	mg/kg	7		6.5		4.7		6.1		6.2		9.3		4.8		2.6		8.8		6		7			
Metals	Magnesium	7439-95-4	mg/kg																							
Metals	Manganese	7439-96-5	mg/kg																							
Metals	Mercury	7439-97-6	mg/kg																							
Metals	Nickel	7440-02-0	mg/kg																							
Metals	Potassium	7440-09-7	mg/kg																							
Metals	Selenium	7782-49-2	mg/kg																							
Metals	Silver	7440-22-4	mg/kg																							
Metals	Sodium	7440-23-5	mg/kg																							
Metals	Thallium	7440-28-0	mg/kg																							
Metals	Vanadium	7440-62-2	mg/kg																							
Metals	Zinc	7440-66-6	mg/kg																							
Cyanide	Cyanide, Reactive	NA	mg/kg																							
Other	Sulfide, Reactive	NA	mg/kg																							
Other	TOTAL ORGANIC CARBON	NA	mg/kg																							
TIC	.alpha.-Pinene	NA	mg/kg																							
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																							
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																							
TIC	1-4-Methanonaphthalene	NA	mg/kg																							
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																							
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																							
TIC	1-Methyl-Pyrene	NA	mg/kg																							
TIC	1S-.alpha.-Pinene	NA	mg/kg																							
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																							
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																							
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																							
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																							
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																							
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																							
TIC	2-Methylanthracene	613-12-7	mg/kg																							
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																							
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																							
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																							
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																							
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																							
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																							
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																							
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																							
TIC	Cyclic octaatomic sulfur	NA	mg/kg																							
TIC	Cyclopentane, methyl-	NA	mg/kg																							
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																							
TIC	Hexanal	0066-25-1	mg/kg																							
TIC	Pentane, 2-methyl-	NA	mg/kg																							
TIC	Pentane, 3-methyl-	NA	mg/kg																							
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																							

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-89		B-90		B-90		B-91		B-91		B-92		B-93		B-93A		B-94		B-95		B-96	
				Field Sample ID	C101504-B89-S5		C101504-B90-S1		C101504-B90-S2		C052405-B91S2		C052405-B91S2A		C052405-B92S2		C052405-B93S2A		C052405-B93AS2		C052405-B94S2		C052405-B95S2		C052405-B96S2	
				Sample Start Depth	8		0.25		2		4		6.6		5		5		4		4		4		4	
				Sample End Depth	10		2		2.75		6.6		7.5		7		7		5.4		6.2		5.5		6	
				Sample Date	10/15/2004		10/15/2004		10/15/2004		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																							
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																							
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																							
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																							
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																							
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																							
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																							
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																							
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																							
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																							
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																							
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																							
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																							
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																							
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																							
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																							
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																							
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																							
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																							
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																							
VOCs	1,4-Dioxane	123-91-1	mg/kg																							
VOCs	1-Chlorohexane	544-10-5	mg/kg																							
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																							
VOCs	2-Chlorotoluene	95-49-8	mg/kg																							
VOCs	2-Hexanone	591-78-6	mg/kg																							
VOCs	4-Chlorotoluene	106-43-4	mg/kg																							
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																							
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																							
VOCs	Acetone	67-64-1	mg/kg																							
VOCs	Benzene	71-43-2	mg/kg																							
VOCs	Bromobenzene	108-86-1	mg/kg																							
VOCs	Bromoform	75-25-2	mg/kg																							
VOCs	Bromomethane	74-83-9	mg/kg																							
VOCs	Carbon disulfide	75-15-0	mg/kg																							
VOCs	Carbon tetrachloride	56-23-5	mg/kg																							
VOCs	Chlorobenzene	108-90-7	mg/kg																							
VOCs	Chlorobromomethane	74-97-5	mg/kg																							
VOCs	Chlorodibromomethane	124-48-1	mg/kg																							
VOCs	Chloroethane	75-00-3	mg/kg																							
VOCs	Chloroform	67-66-3	mg/kg																							
VOCs	Chloromethane	74-87-3	mg/kg																							
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																							
VOCs	Chloroethane	75-00-3	mg/kg																							
VOCs	Chloroform	67-66-3	mg/kg																							
VOCs	Chloromethane	74-87-3	mg/kg																							
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																							
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																							
VOCs	Dibromomethane	74-95-3	mg/kg																							
VOCs	Dichlorobromomethane	75-27-4	mg/kg																							
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																							
VOCs	DIETHYL ETHER	60-29-7	mg/kg																							
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																							
VOCs	Ethylbenzene	100-41-4	mg/kg																							
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																							
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																							
VOCs	Hexanal	0066-25-1	mg/kg																							
VOCs	Isopropylbenzene	98-82-8	mg/kg																							
VOCs	m&p-Xylenes	NA	mg/kg																							
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																							
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																							
VOCs	Methylene Chloride	75-09-2	mg/kg																							
VOCs	n-Butylbenzene	104-51-8	mg/kg																							
VOCs	N-Propylbenzene	103-65-1	mg/kg																							
VOCs	Naphthalene	91-20-3	mg/kg																							
VOCs	o-Xylene	95-47-6	mg/kg																							
VOCs	sec-Butylbenzene	135-98-8	mg/kg																							
VOCs	Styrene	100-42-5	mg/kg																							
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																							
VOCs	tert-Butylbenzene	98-06-6	mg/kg																							
VOCs	Tetrachloroethene	127-18-4	mg/kg																							
VOCs	Tetrahydrofuran	109-99-9	mg/kg																							
VOCs	Toluene	108-88-3	mg/kg																							
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																							
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																							
VOCs	Trichloroethene	79-01-6	mg/kg																							
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																							
VOCs	Vinyl chloride	75-01-4	mg/kg																							
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																							
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																							
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																							
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																							
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																							
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																							
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																							
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																							
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																							
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																							
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																							
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																							
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																							
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																							
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																							
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																							

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-89		B-90		B-90		B-91		B-91		B-92		B-93		B-93A		B-94		B-95		B-96	
			Field Sample ID	C101504-B89-S5		C101504-B90-S1		C101504-B90-S2		C052405-B91S2		C052405-B91S2A		C052405-B92S2		C052405-B93S2A		C052405-B93AS2		C052405-B94S2		C052405-B95S2		C052405-B96S2	
			Sample Start Depth	8		0.25		2		4		6.6		5		5		4		4		4		4	
			Sample End Depth	10		2		2.75		6.6		7.5		7		7		5.4		6.2		5.5		6	
			Sample Date	10/15/2004		10/15/2004		10/15/2004		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-89		B-90		B-90		B-91		B-91		B-92		B-93		B-93A		B-94		B-95		B-96	
				Field Sample ID	C101504-B89-S5		C101504-B90-S1		C101504-B90-S2		C052405-B91S2		C052405-B91S2A		C052405-B92S2		C052405-B93S2A		C052405-B93AS2		C052405-B94S2		C052405-B95S2		C052405-B96S2	
				Sample Start Depth	8		0.25		2		4		6.6		5		5		4		4		4		4	
				Sample End Depth	10		2		2.75		6.6		7.5		7		7		5.4		6.2		5.5		6	
				Sample Date	10/15/2004		10/15/2004		10/15/2004		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005		5/24/2005	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																							
VPH	Ethylbenzene	100-41-4	mg/kg																							
VPH	m&p-Xylenes	NA	mg/kg																							
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																							
VPH	Naphthalene	91-20-3	mg/kg																							
VPH	o-Xylene	95-47-6	mg/kg																							
VPH	Toluene	108-88-3	mg/kg																							
VPH	Total VPH	NA	mg/kg																							
Metals	Aluminum	7429-90-5	mg/kg																							
Metals	Antimony	7440-36-0	mg/kg		1.6	B	1.2	B	0.96	B	2.6	U	2.5	U	0.71	B	2.8	U	0.85	B	1.8	B	0.94	B	1.6	B
Metals	Arsenic	7440-38-2	mg/kg		70		86		130		7.1		14		18		19		27		26		19		18	
Metals	Barium	7440-39-3	mg/kg																							
Metals	Beryllium	7440-41-7	mg/kg		0.26	B	0.32	U	0.28	U	0.78	U	0.75	U	0.76	U	0.16	B	0.17	B	2	U	0.78	U	2	U
Metals	Cadmium	7440-43-9	mg/kg																							
Metals	Calcium	7440-70-2	mg/kg																							
Metals	Chromium	7440-47-3	mg/kg		860		100		140		460		460		1500		130		210		110		200		740	
Metals	Cobalt	7440-48-4	mg/kg																							
Metals	Copper	7440-50-8	mg/kg		200		200		260		60		160		200		480		640		1000		280		420	
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg		0.24		24		4.2		300		110		590		29		24		6.7		10		2.6	
Metals	Iron	7439-89-6	mg/kg																							
Metals	Lead	7439-92-1	mg/kg		15		4.4		5.9		49		100		170		12		5.9		7		8.9		8.8	
Metals	Magnesium	7439-95-4	mg/kg																							
Metals	Manganese	7439-96-5	mg/kg																							
Metals	Mercury	7439-97-6	mg/kg																							
Metals	Nickel	7440-02-0	mg/kg																							
Metals	Potassium	7440-09-7	mg/kg																							
Metals	Selenium	7782-49-2	mg/kg																							
Metals	Silver	7440-22-4	mg/kg																							
Metals	Sodium	7440-23-5	mg/kg																							
Metals	Thallium	7440-28-0	mg/kg																							
Metals	Vanadium	7440-62-2	mg/kg																							
Metals	Zinc	7440-66-6	mg/kg																							
Cyanide	Cyanide, Reactive	NA	mg/kg																							
Other	Sulfide, Reactive	NA	mg/kg																							
Other	TOTAL ORGANIC CARBON	NA	mg/kg																							
TIC	.alpha.-Pinene	NA	mg/kg																							
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																							
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																							
TIC	1-4-Methanonaphthalene	NA	mg/kg																							
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																							
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																							
TIC	1-Methyl-Pyrene	NA	mg/kg																							
TIC	1S-.alpha.-Pinene	NA	mg/kg																							
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																							
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																							
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																							
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																							
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																							
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																							
TIC	2-Methylanthracene	613-12-7	mg/kg																							
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																							
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																							
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																							
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																							
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																							
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																							
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																							
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																							
TIC	Cyclic octaatomic sulfur	NA	mg/kg																							
TIC	Cyclopentane, methyl-	NA	mg/kg																							
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																							
TIC	Hexanal	0066-25-1	mg/kg																							
TIC	Pentane, 2-methyl-	NA	mg/kg																							
TIC	Pentane, 3-methyl-	NA	mg/kg																							
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																							

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	B-97		B-B1		B-B2		B-B3		B-S1		B-S2		BGS-1		BGS-1		C-B1		C-B2	
			Field Sample ID	C052405-B97S2		C022607-BB1		C022607-BB2		C022707-BB3		C022607-BS1		C022607-BS2		C062404-BGS1-0.5-1		C062404-BGS1-1-1.5		C022707-CB1		C022707-CB2	
			Sample Start Depth	4		4		4		2		3		3		0.5		1		4		4	
			Sample End Depth	6		5		5		5		5		5		1		1.5		4		4	
			Sample Date	5/24/2005		2/26/2007		2/26/2007		2/27/2007		2/26/2007		2/26/2007		6/24/2004		6/24/2004		2/27/2007		2/27/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	1,4-Dioxane	123-91-1	mg/kg			0.31	U	0.36	U	0.33	U	0.28	U	0.35	U					0.27	U	0.27	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	2-Hexanone	591-78-6	mg/kg			0.025	U	0.029	U	0.026	U	0.022	U	0.028	U					0.021	U	0.021	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg			0.025	U	0.029	U	0.026	U	0.022	U	0.028	U					0.021	U	0.021	U
VOCs	Acetone	67-64-1	mg/kg			0.31	UJ	0.36	UJ	0.33	UJ	0.17	J	0.35	UJ					0.27	UJ	0.27	UJ
VOCs	Benzene	71-43-2	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Bromobenzene	108-86-1	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Bromoform	75-25-2	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Bromomethane	74-83-9	mg/kg			0.0062	U	0.0072	U	0.0066	U	0.0056	U	0.0071	U					0.0053	U	0.0054	U
VOCs	Carbon disulfide	75-15-0	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Chlorobenzene	108-90-7	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Chlorobromomethane	74-97-5	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Chloroethane	75-00-3	mg/kg			0.0062	U	0.0072	U	0.0066	U	0.0056	U	0.0071	U					0.0053	U	0.0054	U
VOCs	Chloroform	67-66-3	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Chloromethane	74-87-3	mg/kg			0.0062	U	0.0072	U	0.0066	U	0.0056	U	0.0071	U					0.0053	U	0.0054	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Chloroethane	75-00-3	mg/kg			0.0062	U	0.0072	U	0.0066	U	0.0056	U	0.0071	U					0.0053	U	0.0054	U
VOCs	Chloroform	67-66-3	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Chloromethane	74-87-3	mg/kg			0.0062	U	0.0072	U	0.0066	U	0.0056	U	0.0071	U					0.0053	U	0.0054	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Dibromomethane	74-95-3	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg			0.0062	U	0.0072	U	0.0066	U	0.0056	U	0.0071	U					0.0053	U	0.0054	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Ethylbenzene	100-41-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	m&p-Xylenes	NA	mg/kg			0.0031	U	0.0079	J	0.0033	U	0.0018	J	0.0035	U					0.0027	U	0.0027	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg			0.025	U	0.029	U	0.026	U	0.022	U	0.028	U					0.021	U	0.021	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Methylene Chloride	75-09-2	mg/kg			0.0062	U	0.0072	U	0.0066	U	0.0056	U	0.0071	U					0.0053	U	0.0054	U
VOCs	n-Butylbenzene	104-51-8	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	N-Propylbenzene	103-65-1	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Naphthalene	91-20-3	mg/kg			0.031	U	0.036	U	0.033	U	0.028	U	0.035	U					0.027	U	0.027	U
VOCs	o-Xylene	95-47-6	mg/kg			0.0031	U	0.0033	J	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Styrene	100-42-5	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Tetrachloroethene	127-18-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg			0.025	U	0.029	U	0.026	U	0.022	U	0.028	U					0.021	U	0.021	U
VOCs	Toluene	108-88-3	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Trichloroethene	79-01-6	mg/kg			0.0022	J	0.0036	U	0.0033	U	0.0028	U	0.0016	J					0.0027		0.0027	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg			0.0031	U	0.0036	U	0.0033	U	0.0028	U	0.0035	U					0.0027	U	0.0027	U
VOCs	Vinyl chloride	75-01-4	mg/kg			0.0062	U	0.0072	U	0.0066	U	0.0056	U	0.0071	U					0.0053	U	0.0054	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-97		B-B1		B-B2		B-B3		B-S1		B-S2		BGS-1		BGS-1		C-B1		C-B2	
				Field Sample ID	C052405-B97S2		C022607-BB1		C022607-BB2		C022707-BB3		C022607-BS1		C022607-BS2		C062404-BGS1-0.5-1		C062404-BGS1-1-1.5		C022707-CB1		C022707-CB2	
				Sample Start Depth	4		4		4		2		3		3		0.5		1		4		4	
				Sample End Depth	6		5		5		5		5		5		1		1.5		4		4	
				Sample Date	5/24/2005		2/26/2007		2/26/2007		2/27/2007		2/26/2007		2/26/2007		6/24/2004		6/24/2004		2/27/2007		2/27/2007	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																					
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																					
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																					
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																					
SVOCs	3-NITROANILINE	99-09-2	mg/kg																					
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																					
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																					
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																					
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																					
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																					
SVOCs	4-NITROANILINE	100-01-6	mg/kg																					
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																					
SVOCs	Acenaphthene	83-32-9	mg/kg																					
SVOCs	Acenaphthylene	208-96-8	mg/kg																					
SVOCs	Acetophenone	98-86-2	mg/kg																					
SVOCs	Aniline	62-53-3	mg/kg																					
SVOCs	Anthracene	120-12-7	mg/kg																					
SVOCs	Azobenzene	103-33-3	mg/kg																					
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																					
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																					
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																					
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																					
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																					
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																					
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																					
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																					
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																					
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																					
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																					
SVOCs	CARBAZOLE	86-74-8	mg/kg																					
SVOCs	Chrysene	218-01-9	mg/kg																					
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																					
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																					
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																					
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																					
SVOCs	Diethyl phthalate	84-66-2	mg/kg																					
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																					
SVOCs	Fluoranthene	206-44-0	mg/kg																					
SVOCs	Fluorene	86-73-7	mg/kg																					
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																					
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																					
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																					
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																					
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																					
SVOCs	ISOPHORONE	78-59-1	mg/kg																					
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																					
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																					
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																					
SVOCs	Naphthalene	91-20-3	mg/kg																					
SVOCs	NITROBENZENE	98-95-3	mg/kg																					
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																					
SVOCs	Phenanthrene	85-01-8	mg/kg																					
SVOCs	PHENOL	108-95-2	mg/kg																					
SVOCs	Pyrene	129-00-0	mg/kg																					
PCBs	Aroclor 1016	12674-11-2	mg/kg																					
PCBs	Aroclor 1221	11104-28-2	mg/kg																					
PCBs	Aroclor 1232	11141-16-5	mg/kg																					
PCBs	Aroclor 1242	53469-21-9	mg/kg																					
PCBs	Aroclor 1248	12672-29-6	mg/kg																					
PCBs	Aroclor 1254	11097-69-1	mg/kg																					
PCBs	Aroclor 1260	11096-82-5	mg/kg																					
PCBs	PCB-1262	37324-23-5	mg/kg																					
PCBs	PCB-1268	11100-14-4	mg/kg																					
EPH	2-Methylnaphthalene	91-57-6	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U		
EPH	Acenaphthene	83-32-9	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U		
EPH	Acenaphthylene	208-96-8	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U		
EPH	Anthracene	120-12-7	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U		
EPH	Benzo[a]anthracene	56-55-3	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U		
EPH	Benzo[a]pyrene	50-32-8	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U		
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U		
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U		
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U		
EPH	C11-C22 Aromatics	NA	mg/kg			4.8		5.6		3.7	U	6		4.4						3.7	U	3.7	U		
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg			4.8		5.6		3.7	U	6		4.4						3.7	U	3.7	U		
EPH	C19-C36 Aliphatics	NA	mg/kg			5.7		7.4		8.5		9.3		7						3.7	U	3.7	U		
EPH	C9-C18 Aliphatics	NA	mg/kg			3.7	U	3.9	U	3.7	U	3.7	U	3.6	U					3.7	U	3.7	U		
EPH	Chrysene	218-01-9	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U		
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U		
EPH	Fluoranthene	206-44-0	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U		
EPH	Fluorene	86-73-7	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U		
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U		
EPH	Naphthalene	91-20-3	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U		
EPH	Phenanthrene	85-01-8	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U		
EPH	Pyrene	129-00-0	mg/kg			0.37	U	0.39	U	0.37	U	0.37	U	0.36	U					0.37	U	0.37	U		
EPH	Total EPH	NA	mg/kg			11		13		8.5		15		11						3.7	U	3.7	U		
VPH	Benzene	71-43-2	mg/kg																					
VPH	C5-C8 Aliphatics	NA	mg/kg																					
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																					
VPH	C9-C10 Aromatics	NA	mg/kg																					

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	B-97		B-B1		B-B2		B-B3		B-S1		B-S2		BGS-1		BGS-1		C-B1		C-B2	
				Field Sample ID	C052405-B97S2		C022607-BB1		C022607-BB2		C022707-BB3		C022607-BS1		C022607-BS2		C062404-BGS1-0.5-1		C062404-BGS1-1-1.5		C022707-CB1		C022707-CB2	
				Sample Start Depth	4		4		4		2		3		3		0.5		1		4		4	
				Sample End Depth	6		5		5		5		5		5		1		1.5		4		4	
				Sample Date	5/24/2005		2/26/2007		2/26/2007		2/27/2007		2/26/2007		2/26/2007		6/24/2004		6/24/2004		2/27/2007		2/27/2007	
				Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg			12,000		28,000		33,000		19,000		26,000		13,000		11,000		23,000		13,000	
Metals	Antimony	7440-36-0	mg/kg	6.7	U	19	J	6.2	J	7.7	J	39	J	4.1	J	1.7	U	1.5	U	3.4	J	1.6	J
Metals	Arsenic	7440-38-2	mg/kg	150		26		24		58		38		45		29		19		56		34	
Metals	Barium	7440-39-3	mg/kg			68		190		130		82		120		28		26		67		35	
Metals	Beryllium	7440-41-7	mg/kg	2	U	1.4	U	1.3	U	1.3	U	1.3	U	1.4	U	0.5		0.41		1.2	U	0.27	U
Metals	Cadmium	7440-43-9	mg/kg			0.27	J	0.82	J	0.85	J	0.37	J	0.58	J	0.17	U	0.15	U	0.53	J	0.25	J
Metals	Calcium	7440-70-2	mg/kg			1,600	B	3,700	B	7,600	B	1,600	B	8,700	B	830		700		3,800	B	1,500	B
Metals	Chromium	7440-47-3	mg/kg	240		1500	B	470	B	520	B	3300	B	250	B	27		23		140	B	90	B
Metals	Cobalt	7440-48-4	mg/kg			8.4		18		22		12		17		4.9		4.8		17		8.1	
Metals	Copper	7440-50-8	mg/kg	370		900	B	370	B	570	B	220	B	270	B	17		10		210	B	150	B
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	4.9		65		65		0.6		410		94		8	U	4.2	U	5.1		0.37	
Metals	Iron	7439-89-6	mg/kg			19,000	B	42,000	B	49,000	B	29,000	B	37,000	B	13,000		11,000		35,000	B	18,000	B
Metals	Lead	7439-92-1	mg/kg	6.7		87	J	110	J	110	J	46	J	730	J	18		25		44	J	10	J
Metals	Magnesium	7439-95-4	mg/kg			5,700		16,000		18,000		9,100		13,000		3,600		2,900		12,000		5,800	
Metals	Manganese	7439-96-5	mg/kg			370		410		650		320		490		130		150		330		210	
Metals	Mercury	7439-97-6	mg/kg			0.13		0.096	U	0.037	J	0.063	J	0.048	J	0.11	U	0.13	U	0.09	U	0.1	U
Metals	Nickel	7440-02-0	mg/kg			28	B	74	B	93	B	42	B	58	B	18		14		59	B	32	B
Metals	Potassium	7440-09-7	mg/kg			2,400	J	11,000	J	9,300	J	4,500	J	7,300	J	720		450		5,300	J	2,100	J
Metals	Selenium	7782-49-2	mg/kg			3.4	U	3.3	U	3.2	U	3.3	U	3.4	U	0.84	U	0.76	U	2.9	U	0.67	U
Metals	Silver	7440-22-4	mg/kg			33		8.8		9.6		72		5.3		0.84	U	0.76	U	2.4	J	1.3	
Metals	Sodium	7440-23-5	mg/kg			680	U	180	J	300	J	87	U	210	J	170	U	150	U	120	U	50	J
Metals	Thallium	7440-28-0	mg/kg			6.8	U	6.5	U	6.5	U	6.5	U	6.8	U	0.84	U	0.76	U	5.9	U	0.15	J
Metals	Vanadium	7440-62-2	mg/kg			24		69		68		38		58		23		20		45		21	
Metals	Zinc	7440-66-6	mg/kg			54		75		100		47		87		38		38		63		27	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg					0.015	NJ														
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	C-S1		C-S2		C-S3		CLSoil10		CLSoil6		CLSoil7		CLSoil8		CLSoil9		CXRF-01		CXRF-01		CXRF-01	
			Field Sample ID	C022707-CS1		C022707-CS2		C022707-CS3		C052893-CLSoil10		C052893-CLSoil6		C052893-CLSoil7		C052893-CLSoil8		C052893-CLSoil9		CXRF-01(0-5)		CXRF-01(10-13)		CXRF-01(5-8)	
			Sample Start Depth	2		2		2		0		0		0		0		0		0		10		5	
			Sample End Depth	4		4		4		0.5		0.5		0.5		0.5		0.5		5		13		8	
			Sample Date	2/27/2007		2/27/2007		2/27/2007		5/28/1993		5/28/1993		5/28/1993		5/28/1993		5/28/1993		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.2	U	0.22	U	0.32	U																
VOCs	1-Chlorohexane	544-10-5	mg/kg							0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	2-Hexanone	591-78-6	mg/kg	0.016	U	0.018	U	0.025	U																
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.016	U	0.018	U	0.025	U																
VOCs	Acetone	67-64-1	mg/kg	0.16	J	0.22	UJ	0.32	UJ																
VOCs	Benzene	71-43-2	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Bromobenzene	108-86-1	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Bromoform	75-25-2	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Bromomethane	74-83-9	mg/kg	0.004	U	0.0044	U	0.0063	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Carbon disulfide	75-15-0	mg/kg	0.002	U	0.0022	U	0.0032	U																
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Chlorobenzene	108-90-7	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Chloroethane	75-00-3	mg/kg	0.004	U	0.0044	U	0.0063	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Chloroform	67-66-3	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Chloromethane	74-87-3	mg/kg	0.004	U	0.0044	U	0.0063	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.002	U	0.0022	U	0.0032	U																
VOCs	Dibromomethane	74-95-3	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.004	U	0.0044	U	0.0063	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.002	U	0.0022	U	0.0032	U																
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.002	U	0.0022	U	0.0032	U																
VOCs	Ethylbenzene	100-41-4	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.002	U	0.0022	U	0.0032	U																
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Hexanal	0066-25-1	mg/kg	0.065	NJ			0.033	NJ																
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	m&p-Xylenes	NA	mg/kg	0.0029	J	0.0022	U	0.0032	U																
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.016	U	0.018	U	0.025	U																
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.002	U	0.0022	U	0.0032	U																
VOCs	Methylene Chloride	75-09-2	mg/kg	0.004	U	0.0044	U	0.0063	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Naphthalene	91-20-3	mg/kg	0.02	U	0.022	U	0.032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	o-Xylene	95-47-6	mg/kg	0.0015	J	0.0022	U	0.0032	U																
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Styrene	100-42-5	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.002	U	0.0022	U	0.0032	U																
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.016	U	0.018	U	0.025	U																
VOCs	Toluene	108-88-3	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.002	U	0.0022	U	0.0032	U																
VOCs	Trichloroethene	79-01-6	mg/kg	0.0014	J	0.0022	U	0.0013	J	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.002	U	0.0022	U	0.0032	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Vinyl chloride	75-01-4	mg/kg	0.004	U	0.0044	U	0.0063	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U						
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg							0.03	U	0.03	U	0.03	U	0.03	U	0.03	U						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	C-S1		C-S2		C-S3		CLSoil10		CLSoil6		CLSoil7		CLSoil8		CLSoil9		CXRF-01		CXRF-01		CXRF-01	
			Field Sample ID	C022707-CS1		C022707-CS2		C022707-CS3		C052893-CLSoil10		C052893-CLSoil6		C052893-CLSoil7		C052893-CLSoil8		C052893-CLSoil9		CXRF-01(0-5)		CXRF-01(10-13)		CXRF-01(5-8)	
			Sample Start Depth	2		2		2		0		0		0		0		0		0		10		5	
			Sample End Depth	4		4		4		0.5		0.5		0.5		0.5		0.5		5		13		8	
			Sample Date	2/27/2007		2/27/2007		2/27/2007		5/28/1993		5/28/1993		5/28/1993		5/28/1993		5/28/1993		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Acenaphthene	83-32-9	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Acenaphthylene	208-96-8	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Anthracene	120-12-7	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	C11-C22 Aromatics	NA	mg/kg	6.3		3.8	U	5.9																	
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	6.3		3.8	U	5.9																	
EPH	C19-C36 Aliphatics	NA	mg/kg	9.9		3.8	U	4.1																	
EPH	C9-C18 Aliphatics	NA	mg/kg	3.7	U	3.8	U	3.8	U																
EPH	Chrysene	218-01-9	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Fluoranthene	206-44-0	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Fluorene	86-73-7	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Naphthalene	91-20-3	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Phenanthrene	85-01-8	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Pyrene	129-00-0	mg/kg	0.37	U	0.38	U	0.38	U																
EPH	Total EPH	NA	mg/kg	16		3.8	U	10																	
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	C-S1		C-S2		C-S3		CLSoil10		CLSoil6		CLSoil7		CLSoil8		CLSoil9		CXRF-01		CXRF-01		CXRF-01	
			Field Sample ID	C022707-CS1		C022707-CS2		C022707-CS3		C052893-CLSoil10		C052893-CLSoil6		C052893-CLSoil7		C052893-CLSoil8		C052893-CLSoil9		CXRF-01(0-5)		CXRF-01(10-13)		CXRF-01(5-8)	
			Sample Start Depth	2		2		2		0		0		0		0		0		0		10		5	
			Sample End Depth	4		4		4		0.5		0.5		0.5		0.5		0.5		5		13		8	
			Sample Date	2/27/2007		2/27/2007		2/27/2007		5/28/1993		5/28/1993		5/28/1993		5/28/1993		5/28/1993		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																						
VPH	Ethylbenzene	100-41-4	mg/kg																						
VPH	m&p-Xylenes	NA	mg/kg																						
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VPH	Naphthalene	91-20-3	mg/kg																						
VPH	o-Xylene	95-47-6	mg/kg																						
VPH	Toluene	108-88-3	mg/kg																						
VPH	Total VPH	NA	mg/kg																						
Metals	Aluminum	7429-90-5	mg/kg	25,000		18,000		14,000																	
Metals	Antimony	7440-36-0	mg/kg	2.8	J	1.8	J	2.2	J																
Metals	Arsenic	7440-38-2	mg/kg	110		53		33		5.1		3.8		4		4.1		2.8							
Metals	Barium	7440-39-3	mg/kg	100		67		48		22		12		15		14		14							
Metals	Beryllium	7440-41-7	mg/kg	1.3	U	1.2	U	0.27	U																
Metals	Cadmium	7440-43-9	mg/kg	0.85	J	0.36	J	0.37		0.67		0.68		0.83		1.1		0.72							
Metals	Calcium	7440-70-2	mg/kg	5,500	B	2,700	B	1,800	B																
Metals	Chromium	7440-47-3	mg/kg	130	B	67	B	120	B	26		25		27		37		26		210		147		1300	B
Metals	Cobalt	7440-48-4	mg/kg	20		12		8.4																	
Metals	Copper	7440-50-8	mg/kg	350	B	29	B	120	B	7.4		10		10		14		11							
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	3.6		0.36		4.6																8.8	
Metals	Iron	7439-89-6	mg/kg	41,000	B	24,000	B	19,000	B																
Metals	Lead	7439-92-1	mg/kg	28	J	9.1	J	58	J	31		44		54		72		16							
Metals	Magnesium	7439-95-4	mg/kg	15,000		8,500		6,400																	
Metals	Manganese	7439-96-5	mg/kg	500		490		240																	
Metals	Mercury	7439-97-6	mg/kg	0.038	J	0.036	J	0.086																	
Metals	Nickel	7440-02-0	mg/kg	64	B	45	B	35	B	18		19		23		30		21							
Metals	Potassium	7440-09-7	mg/kg	6,800	J	4,100	J	2,300	J																
Metals	Selenium	7782-49-2	mg/kg	3.2	U	2.9	U	0.67	U																
Metals	Silver	7440-22-4	mg/kg	2.1	J	1.4	J	2		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U						
Metals	Sodium	7440-23-5	mg/kg	130	U	76	U	58	J																
Metals	Thallium	7440-28-0	mg/kg	6.4	U	5.9	U	1.3	U																
Metals	Vanadium	7440-62-2	mg/kg	64		34		26																	
Metals	Zinc	7440-66-6	mg/kg	91		38		35																	
Cyanide	Cyanide, Reactive	NA	mg/kg																						
Other	Sulfide, Reactive	NA	mg/kg																						
Other	TOTAL ORGANIC CARBON	NA	mg/kg																						
TIC	.alpha.-Pinene	NA	mg/kg																						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																						
TIC	1-4-Methanonaphthalene	NA	mg/kg																						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																						
TIC	1-Methyl-Pyrene	NA	mg/kg																						
TIC	15-.alpha.-Pinene	NA	mg/kg																						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																						
TIC	2-Methylanthracene	613-12-7	mg/kg																						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																						
TIC	Cyclic octaatomic sulfur	NA	mg/kg																						
TIC	Cyclopentane, methyl-	NA	mg/kg																						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																						
TIC	Hexanal	0066-25-1	mg/kg																						
TIC	Pentane, 2-methyl-	NA	mg/kg																						
TIC	Pentane, 3-methyl-	NA	mg/kg																						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-01		CXRF-02		CXRF-02		CXRF-02		CXRF-03		CXRF-03		CXRF-03		CXRF-03		CXRF-04		CXRF-04		CXRF-04	
			Field Sample ID	CXRF-01(8-10)		CXRF-02(0-5)		CXRF-02(10-15)		CXRF-02(5-10)		CXRF-03(0-5)		CXRF-03(10-14)		CXRF-03(5-8)		CXRF-03(8-10)		CXRF-04(0-5)		CXRF-04(10-13)		CXRF-04(5-10)	
			Sample Start Depth	8		0		10		5		0		10		5		8		0		10		5	
			Sample End Depth	10		5		15		10		5		14		8		10		5		13		10	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																						
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																						
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																						
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																						
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																						
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																						
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																						
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																						
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																						
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																						
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																						
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																						
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																						
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																						
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																						
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																						
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
VOCs	1,4-Dioxane	123-91-1	mg/kg																						
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																						
VOCs	2-Chlorotoluene	95-49-8	mg/kg																						
VOCs	2-Hexanone	591-78-6	mg/kg																						
VOCs	4-Chlorotoluene	106-43-4	mg/kg																						
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																						
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																						
VOCs	Acetone	67-64-1	mg/kg																						
VOCs	Benzene	71-43-2	mg/kg																						
VOCs	Bromobenzene	108-86-1	mg/kg																						
VOCs	Bromoform	75-25-2	mg/kg																						
VOCs	Bromomethane	74-83-9	mg/kg																						
VOCs	Carbon disulfide	75-15-0	mg/kg																						
VOCs	Carbon tetrachloride	56-23-5	mg/kg																						
VOCs	Chlorobenzene	108-90-7	mg/kg																						
VOCs	Chlorobromomethane	74-97-5	mg/kg																						
VOCs	Chlorodibromomethane	124-48-1	mg/kg																						
VOCs	Chloroethane	75-00-3	mg/kg																						
VOCs	Chloroform	67-66-3	mg/kg																						
VOCs	Chloromethane	74-87-3	mg/kg																						
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																						
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																						
VOCs	Dibromomethane	74-95-3	mg/kg																						
VOCs	Dichlorobromomethane	75-27-4	mg/kg																						
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																						
VOCs	DIETHYL ETHER	60-29-7	mg/kg																						
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																						
VOCs	Ethylbenzene	100-41-4	mg/kg																						
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																						
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg																						
VOCs	m&p-Xylenes	NA	mg/kg																						
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																						
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VOCs	Methylene Chloride	75-09-2	mg/kg																						
VOCs	n-Butylbenzene	104-51-8	mg/kg																						
VOCs	N-Propylbenzene	103-65-1	mg/kg																						
VOCs	Naphthalene	91-20-3	mg/kg																						
VOCs	o-Xylene	95-47-6	mg/kg																						
VOCs	sec-Butylbenzene	135-98-8	mg/kg																						
VOCs	Styrene	100-42-5	mg/kg																						
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																						
VOCs	tert-Butylbenzene	98-06-6	mg/kg																						
VOCs	Tetrachloroethene	127-18-4	mg/kg																						
VOCs	Tetrahydrofuran	109-99-9	mg/kg																						
VOCs	Toluene	108-88-3	mg/kg																						
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																						
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																						
VOCs	Trichloroethene	79-01-6	mg/kg																						
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																						
VOCs	Vinyl chloride	75-01-4	mg/kg																						
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-01		CXRF-02		CXRF-02		CXRF-02		CXRF-03		CXRF-03		CXRF-03		CXRF-03		CXRF-04		CXRF-04		CXRF-04	
			Field Sample ID	CXRF-01(8-10)		CXRF-02(0-5)		CXRF-02(10-15)		CXRF-02(5-10)		CXRF-03(0-5)		CXRF-03(10-14)		CXRF-03(5-8)		CXRF-03(8-10)		CXRF-04(0-5)		CXRF-04(10-13)		CXRF-04(5-10)	
			Sample Start Depth	8		0		10		5		0		10		5		8		0		10		5	
			Sample End Depth	10		5		15		10		5		14		8		10		5		13		10	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-01		CXRF-02		CXRF-02		CXRF-02		CXRF-03		CXRF-03		CXRF-03		CXRF-03		CXRF-04		CXRF-04		CXRF-04	
			Field Sample ID	CXRF-01(8-10)		CXRF-02(0-5)		CXRF-02(10-15)		CXRF-02(5-10)		CXRF-03(0-5)		CXRF-03(10-14)		CXRF-03(5-8)		CXRF-03(8-10)		CXRF-04(0-5)		CXRF-04(10-13)		CXRF-04(5-10)	
			Sample Start Depth	8		0		10		5		0		10		5		8		0		10		5	
			Sample End Depth	10		5		15		10		5		14		8		10		5		13		10	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																						
VPH	Ethylbenzene	100-41-4	mg/kg																						
VPH	m&p-Xylenes	NA	mg/kg																						
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VPH	Naphthalene	91-20-3	mg/kg																						
VPH	o-Xylene	95-47-6	mg/kg																						
VPH	Toluene	108-88-3	mg/kg																						
VPH	Total VPH	NA	mg/kg																						
Metals	Aluminum	7429-90-5	mg/kg																						
Metals	Antimony	7440-36-0	mg/kg																						
Metals	Arsenic	7440-38-2	mg/kg																						
Metals	Barium	7440-39-3	mg/kg																						
Metals	Beryllium	7440-41-7	mg/kg																						
Metals	Cadmium	7440-43-9	mg/kg																						
Metals	Calcium	7440-70-2	mg/kg																						
Metals	Chromium	7440-47-3	mg/kg	501		195		352		612		94		542		189		624		180		856		680	
Metals	Cobalt	7440-48-4	mg/kg																						
Metals	Copper	7440-50-8	mg/kg																						
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg																						
Metals	Iron	7439-89-6	mg/kg																						
Metals	Lead	7439-92-1	mg/kg																						
Metals	Magnesium	7439-95-4	mg/kg																						
Metals	Manganese	7439-96-5	mg/kg																						
Metals	Mercury	7439-97-6	mg/kg																						
Metals	Nickel	7440-02-0	mg/kg																						
Metals	Potassium	7440-09-7	mg/kg																						
Metals	Selenium	7782-49-2	mg/kg																						
Metals	Silver	7440-22-4	mg/kg																						
Metals	Sodium	7440-23-5	mg/kg																						
Metals	Thallium	7440-28-0	mg/kg																						
Metals	Vanadium	7440-62-2	mg/kg																						
Metals	Zinc	7440-66-6	mg/kg																						
Cyanide	Cyanide, Reactive	NA	mg/kg																						
Other	Sulfide, Reactive	NA	mg/kg																						
Other	TOTAL ORGANIC CARBON	NA	mg/kg																						
TIC	.alpha.-Pinene	NA	mg/kg																						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																						
TIC	1-4-Methanonaphthalene	NA	mg/kg																						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																						
TIC	1-Methyl-Pyrene	NA	mg/kg																						
TIC	1S-.alpha.-Pinene	NA	mg/kg																						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																						
TIC	2-Methylanthracene	613-12-7	mg/kg																						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																						
TIC	Cyclic octaatomic sulfur	NA	mg/kg																						
TIC	Cyclopentane, methyl-	NA	mg/kg																						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																						
TIC	Hexanal	0066-25-1	mg/kg																						
TIC	Pentane, 2-methyl-	NA	mg/kg																						
TIC	Pentane, 3-methyl-	NA	mg/kg																						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-05		CXRF-05		CXRF-05		CXRF-05		CXRF-06		CXRF-06		CXRF-06		CXRF-07		CXRF-07		CXRF-07		CXRF-07	
			Field Sample ID	CXRF-05(0-5)		CXRF-05(10-12)		CXRF-05(5-8)		CXRF-05(8-10)		CXRF-06(0-5)		CXRF-06(5-8)		CXRF-06(8-10)		CXRF-07(0-5)		CXRF-07(10-14)		CXRF-07(5-8)		CXRF-07(8-10)	
			Sample Start Depth	0		10		5		8		0		5		8		0		10		5		8	
			Sample End Depth	5		12		8		10		5		8		10		5		14		8		10	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																						
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																						
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																						
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																						
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																						
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																						
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																						
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																						
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																						
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																						
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																						
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																						
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																						
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																						
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																						
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																						
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
VOCs	1,4-Dioxane	123-91-1	mg/kg																						
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																						
VOCs	2-Chlorotoluene	95-49-8	mg/kg																						
VOCs	2-Hexanone	591-78-6	mg/kg																						
VOCs	4-Chlorotoluene	106-43-4	mg/kg																						
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																						
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																						
VOCs	Acetone	67-64-1	mg/kg																						
VOCs	Benzene	71-43-2	mg/kg																						
VOCs	Bromobenzene	108-86-1	mg/kg																						
VOCs	Bromoform	75-25-2	mg/kg																						
VOCs	Bromomethane	74-83-9	mg/kg																						
VOCs	Carbon disulfide	75-15-0	mg/kg																						
VOCs	Carbon tetrachloride	56-23-5	mg/kg																						
VOCs	Chlorobenzene	108-90-7	mg/kg																						
VOCs	Chlorobromomethane	74-97-5	mg/kg																						
VOCs	Chlorodibromomethane	124-48-1	mg/kg																						
VOCs	Chloroethane	75-00-3	mg/kg																						
VOCs	Chloroform	67-66-3	mg/kg																						
VOCs	Chloromethane	74-87-3	mg/kg																						
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																						
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																						
VOCs	Dibromomethane	74-95-3	mg/kg																						
VOCs	Dichlorobromomethane	75-27-4	mg/kg																						
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																						
VOCs	DIETHYL ETHER	60-29-7	mg/kg																						
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																						
VOCs	Ethylbenzene	100-41-4	mg/kg																						
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																						
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg																						
VOCs	m&p-Xylenes	NA	mg/kg																						
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																						
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VOCs	Methylene Chloride	75-09-2	mg/kg																						
VOCs	n-Butylbenzene	104-51-8	mg/kg																						
VOCs	N-Propylbenzene	103-65-1	mg/kg																						
VOCs	Naphthalene	91-20-3	mg/kg																						
VOCs	o-Xylene	95-47-6	mg/kg																						
VOCs	sec-Butylbenzene	135-98-8	mg/kg																						
VOCs	Styrene	100-42-5	mg/kg																						
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																						
VOCs	tert-Butylbenzene	98-06-6	mg/kg																						
VOCs	Tetrachloroethene	127-18-4	mg/kg																						
VOCs	Tetrahydrofuran	109-99-9	mg/kg																						
VOCs	Toluene	108-88-3	mg/kg																						
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																						
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																						
VOCs	Trichloroethene	79-01-6	mg/kg																						
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																						
VOCs	Vinyl chloride	75-01-4	mg/kg																						
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-05		CXRF-05		CXRF-05		CXRF-05		CXRF-06		CXRF-06		CXRF-06		CXRF-07		CXRF-07		CXRF-07		CXRF-07	
			Field Sample ID	CXRF-05(0-5)		CXRF-05(10-12)		CXRF-05(5-8)		CXRF-05(8-10)		CXRF-06(0-5)		CXRF-06(5-8)		CXRF-06(8-10)		CXRF-07(0-5)		CXRF-07(10-14)		CXRF-07(5-8)		CXRF-07(8-10)	
			Sample Start Depth	0		10		5		8		0		5		8		0		10		5		8	
			Sample End Depth	5		12		8		10		5		8		10		5		14		8		10	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

		Location ID	CXRF-05		CXRF-05		CXRF-05		CXRF-05		CXRF-06		CXRF-06		CXRF-06		CXRF-07		CXRF-07		CXRF-07		CXRF-07	
		Field Sample ID	CXRF-05(0-5)		CXRF-05(10-12)		CXRF-05(5-8)		CXRF-05(8-10)		CXRF-06(0-5)		CXRF-06(5-8)		CXRF-06(8-10)		CXRF-07(0-5)		CXRF-07(10-14)		CXRF-07(5-8)		CXRF-07(8-10)	
		Sample Start Depth	0		10		5		8		0		5		8		0		10		5		8	
		Sample End Depth	5		12		8		10		5		8		10		5		14		8		10	
		Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
		Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																					
VPH	Ethylbenzene	100-41-4	mg/kg																					
VPH	m&p-Xylenes	NA	mg/kg																					
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																					
VPH	Naphthalene	91-20-3	mg/kg																					
VPH	o-Xylene	95-47-6	mg/kg																					
VPH	Toluene	108-88-3	mg/kg																					
VPH	Total VPH	NA	mg/kg																					
Metals	Aluminum	7429-90-5	mg/kg																					
Metals	Antimony	7440-36-0	mg/kg																					
Metals	Arsenic	7440-38-2	mg/kg																					
Metals	Barium	7440-39-3	mg/kg																					
Metals	Beryllium	7440-41-7	mg/kg																					
Metals	Cadmium	7440-43-9	mg/kg																					
Metals	Calcium	7440-70-2	mg/kg																					
Metals	Chromium	7440-47-3	mg/kg	123	U	1190		314		1100	B	281		2900	B	586		82		238		923		305	
Metals	Cobalt	7440-48-4	mg/kg																					
Metals	Copper	7440-50-8	mg/kg																					
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg							46				0.2	U									
Metals	Iron	7439-89-6	mg/kg																					
Metals	Lead	7439-92-1	mg/kg																					
Metals	Magnesium	7439-95-4	mg/kg																					
Metals	Manganese	7439-96-5	mg/kg																					
Metals	Mercury	7439-97-6	mg/kg																					
Metals	Nickel	7440-02-0	mg/kg																					
Metals	Potassium	7440-09-7	mg/kg																					
Metals	Selenium	7782-49-2	mg/kg																					
Metals	Silver	7440-22-4	mg/kg																					
Metals	Sodium	7440-23-5	mg/kg																					
Metals	Thallium	7440-28-0	mg/kg																					
Metals	Vanadium	7440-62-2	mg/kg																					
Metals	Zinc	7440-66-6	mg/kg																					
Cyanide	Cyanide, Reactive	NA	mg/kg																					
Other	Sulfide, Reactive	NA	mg/kg																					
Other	TOTAL ORGANIC CARBON	NA	mg/kg																					
TIC	.alpha.-Pinene	NA	mg/kg																					
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																					
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																					
TIC	1-4-Methanonaphthalene	NA	mg/kg																					
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																					
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																					
TIC	1-Methyl-Pyrene	NA	mg/kg																					
TIC	1S-.alpha.-Pinene	NA	mg/kg																					
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																					
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																					
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																					
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																					
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																					
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																					
TIC	2-Methylanthracene	613-12-7	mg/kg																					
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																					
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																					
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																					
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																					
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																					
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																					
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																					
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																					
TIC	Cyclic octaatomic sulfur	NA	mg/kg																					
TIC	Cyclopentane, methyl-	NA	mg/kg																					
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																					
TIC	Hexanal	0066-25-1	mg/kg																					
TIC	Pentane, 2-methyl-	NA	mg/kg																					
TIC	Pentane, 3-methyl-	NA	mg/kg																					
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																					

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-08		CXRF-08		CXRF-08		CXRF-08		CXRF-09		CXRF-09		CXRF-09		CXRF-09		CXRF-10		CXRF-10		CXRF-10	
			Field Sample ID	CXRF-08(0-5)		CXRF-08(10-14)		CXRF-08(5-8)		CXRF-08(8-10)		CXRF-09(0-5)		CXRF-09(10-15)		CXRF-09(5-8)		CXRF-09(8-10)		CXRF-10(0-5)		CXRF-10(10-15)		CXRF-10(5-8)	
			Sample Start Depth	0		10		5		8		0		10		5		8		0		10		5	
			Sample End Depth	5		14		8		10		5		15		8		10		5		15		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																						
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																						
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																						
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																						
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																						
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																						
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																						
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																						
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																						
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																						
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																						
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																						
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																						
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																						
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																						
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																						
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
VOCs	1,4-Dioxane	123-91-1	mg/kg																						
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																						
VOCs	2-Chlorotoluene	95-49-8	mg/kg																						
VOCs	2-Hexanone	591-78-6	mg/kg																						
VOCs	4-Chlorotoluene	106-43-4	mg/kg																						
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																						
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																						
VOCs	Acetone	67-64-1	mg/kg																						
VOCs	Benzene	71-43-2	mg/kg																						
VOCs	Bromobenzene	108-86-1	mg/kg																						
VOCs	Bromoform	75-25-2	mg/kg																						
VOCs	Bromomethane	74-83-9	mg/kg																						
VOCs	Carbon disulfide	75-15-0	mg/kg																						
VOCs	Carbon tetrachloride	56-23-5	mg/kg																						
VOCs	Chlorobenzene	108-90-7	mg/kg																						
VOCs	Chlorobromomethane	74-97-5	mg/kg																						
VOCs	Chlorodibromomethane	124-48-1	mg/kg																						
VOCs	Chloroethane	75-00-3	mg/kg																						
VOCs	Chloroform	67-66-3	mg/kg																						
VOCs	Chloromethane	74-87-3	mg/kg																						
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																						
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																						
VOCs	Dibromomethane	74-95-3	mg/kg																						
VOCs	Dichlorobromomethane	75-27-4	mg/kg																						
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																						
VOCs	DIETHYL ETHER	60-29-7	mg/kg																						
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																						
VOCs	Ethylbenzene	100-41-4	mg/kg																						
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																						
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg																						
VOCs	m&p-Xylenes	NA	mg/kg																						
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																						
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VOCs	Methylene Chloride	75-09-2	mg/kg																						
VOCs	n-Butylbenzene	104-51-8	mg/kg																						
VOCs	N-Propylbenzene	103-65-1	mg/kg																						
VOCs	Naphthalene	91-20-3	mg/kg																						
VOCs	o-Xylene	95-47-6	mg/kg																						
VOCs	sec-Butylbenzene	135-98-8	mg/kg																						
VOCs	Styrene	100-42-5	mg/kg																						
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																						
VOCs	tert-Butylbenzene	98-06-6	mg/kg																						
VOCs	Tetrachloroethene	127-18-4	mg/kg																						
VOCs	Tetrahydrofuran	109-99-9	mg/kg																						
VOCs	Toluene	108-88-3	mg/kg																						
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																						
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																						
VOCs	Trichloroethene	79-01-6	mg/kg																						
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																						
VOCs	Vinyl chloride	75-01-4	mg/kg																						
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-08		CXRF-08		CXRF-08		CXRF-08		CXRF-09		CXRF-09		CXRF-09		CXRF-09		CXRF-10		CXRF-10		CXRF-10	
			Field Sample ID	CXRF-08(0-5)		CXRF-08(10-14)		CXRF-08(5-8)		CXRF-08(8-10)		CXRF-09(0-5)		CXRF-09(10-15)		CXRF-09(5-8)		CXRF-09(8-10)		CXRF-10(0-5)		CXRF-10(10-15)		CXRF-10(5-8)	
			Sample Start Depth	0		10		5		8		0		10		5		8		0		10		5	
			Sample End Depth	5		14		8		10		5		15		8		10		5		15		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

		Location ID	CXRF-08		CXRF-08		CXRF-08		CXRF-08		CXRF-09		CXRF-09		CXRF-09		CXRF-09		CXRF-10		CXRF-10		CXRF-10	
		Field Sample ID	CXRF-08(0-5)		CXRF-08(10-14)		CXRF-08(5-8)		CXRF-08(8-10)		CXRF-09(0-5)		CXRF-09(10-15)		CXRF-09(5-8)		CXRF-09(8-10)		CXRF-10(0-5)		CXRF-10(10-15)		CXRF-10(5-8)	
		Sample Start Depth	0		10		5		8		0		10		5		8		0		10		5	
		Sample End Depth	5		14		8		10		5		15		8		10		5		15		8	
		Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
		Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																					
VPH	Ethylbenzene	100-41-4	mg/kg																					
VPH	m&p-Xylenes	NA	mg/kg																					
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																					
VPH	Naphthalene	91-20-3	mg/kg																					
VPH	o-Xylene	95-47-6	mg/kg																					
VPH	Toluene	108-88-3	mg/kg																					
VPH	Total VPH	NA	mg/kg																					
Metals	Aluminum	7429-90-5	mg/kg																					
Metals	Antimony	7440-36-0	mg/kg																					
Metals	Arsenic	7440-38-2	mg/kg																					
Metals	Barium	7440-39-3	mg/kg																					
Metals	Beryllium	7440-41-7	mg/kg																					
Metals	Cadmium	7440-43-9	mg/kg																					
Metals	Calcium	7440-70-2	mg/kg																					
Metals	Chromium	7440-47-3	mg/kg	120		166		849		232		114		123	U	57	B	130	U	93		133		110	U
Metals	Cobalt	7440-48-4	mg/kg																					
Metals	Copper	7440-50-8	mg/kg																					
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg													0.2	J							
Metals	Iron	7439-89-6	mg/kg																					
Metals	Lead	7439-92-1	mg/kg																					
Metals	Magnesium	7439-95-4	mg/kg																					
Metals	Manganese	7439-96-5	mg/kg																					
Metals	Mercury	7439-97-6	mg/kg																					
Metals	Nickel	7440-02-0	mg/kg																					
Metals	Potassium	7440-09-7	mg/kg																					
Metals	Selenium	7782-49-2	mg/kg																					
Metals	Silver	7440-22-4	mg/kg																					
Metals	Sodium	7440-23-5	mg/kg																					
Metals	Thallium	7440-28-0	mg/kg																					
Metals	Vanadium	7440-62-2	mg/kg																					
Metals	Zinc	7440-66-6	mg/kg																					
Cyanide	Cyanide, Reactive	NA	mg/kg																					
Other	Sulfide, Reactive	NA	mg/kg																					
Other	TOTAL ORGANIC CARBON	NA	mg/kg																					
TIC	.alpha.-Pinene	NA	mg/kg																					
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																					
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																					
TIC	1-4-Methanonaphthalene	NA	mg/kg																					
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																					
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																					
TIC	1-Methyl-Pyrene	NA	mg/kg																					
TIC	1S-.alpha.-Pinene	NA	mg/kg																					
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																					
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																					
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																					
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																					
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																					
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																					
TIC	2-Methylanthracene	613-12-7	mg/kg																					
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																					
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																					
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																					
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																					
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																					
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																					
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																					
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																					
TIC	Cyclic octaatomic sulfur	NA	mg/kg																					
TIC	Cyclopentane, methyl-	NA	mg/kg																					
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																					
TIC	Hexanal	0066-25-1	mg/kg																					
TIC	Pentane, 2-methyl-	NA	mg/kg																					
TIC	Pentane, 3-methyl-	NA	mg/kg																					
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																					

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-10		CXRF-11		CXRF-11		CXRF-11		CXRF-12		CXRF-12		CXRF-12		CXRF-13		CXRF-13		CXRF-13		CXRF-14	
			Field Sample ID	CXRF-10(8-10)		CXRF-11(0-5)		CXRF-11(5-8)		CXRF-11(8-10)		CXRF-12(0-5)		CXRF-12(5-8)		CXRF-12(8-10)		CXRF-13(0-5)		CXRF-13(5-8)		CXRF-13(8-10)		CXRF-14(0-5)	
			Sample Start Depth	8		0		5		8		0		5		8		0		5		8		0	
			Sample End Depth	10		5		8		10		5		8		10		5		8		10		5	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																						
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																						
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																						
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																						
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																						
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																						
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																						
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																						
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																						
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																						
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																						
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																						
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																						
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																						
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																						
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																						
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
VOCs	1,4-Dioxane	123-91-1	mg/kg																						
VOCs	1-Chlorohexane	544-10-5	mg/kg																						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																						
VOCs	2-Chlorotoluene	95-49-8	mg/kg																						
VOCs	2-Hexanone	591-78-6	mg/kg																						
VOCs	4-Chlorotoluene	106-43-4	mg/kg																						
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																						
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																						
VOCs	Acetone	67-64-1	mg/kg																						
VOCs	Benzene	71-43-2	mg/kg																						
VOCs	Bromobenzene	108-86-1	mg/kg																						
VOCs	Bromoform	75-25-2	mg/kg																						
VOCs	Bromomethane	74-83-9	mg/kg																						
VOCs	Carbon disulfide	75-15-0	mg/kg																						
VOCs	Carbon tetrachloride	56-23-5	mg/kg																						
VOCs	Chlorobenzene	108-90-7	mg/kg																						
VOCs	Chlorobromomethane	74-97-5	mg/kg																						
VOCs	Chlorodibromomethane	124-48-1	mg/kg																						
VOCs	Chloroethane	75-00-3	mg/kg																						
VOCs	Chloroform	67-66-3	mg/kg																						
VOCs	Chloromethane	74-87-3	mg/kg																						
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																						
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																						
VOCs	Dibromomethane	74-95-3	mg/kg																						
VOCs	Dichlorobromomethane	75-27-4	mg/kg																						
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																						
VOCs	DIETHYL ETHER	60-29-7	mg/kg																						
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																						
VOCs	Ethylbenzene	100-41-4	mg/kg																						
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																						
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
VOCs	Hexanal	0066-25-1	mg/kg																						
VOCs	Isopropylbenzene	98-82-8	mg/kg																						
VOCs	m&p-Xylenes	NA	mg/kg																						
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																						
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VOCs	Methylene Chloride	75-09-2	mg/kg																						
VOCs	n-Butylbenzene	104-51-8	mg/kg																						
VOCs	N-Propylbenzene	103-65-1	mg/kg																						
VOCs	Naphthalene	91-20-3	mg/kg																						
VOCs	o-Xylene	95-47-6	mg/kg																						
VOCs	sec-Butylbenzene	135-98-8	mg/kg																						
VOCs	Styrene	100-42-5	mg/kg																						
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																						
VOCs	tert-Butylbenzene	98-06-6	mg/kg																						
VOCs	Tetrachloroethene	127-18-4	mg/kg																						
VOCs	Tetrahydrofuran	109-99-9	mg/kg																						
VOCs	Toluene	108-88-3	mg/kg																						
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																						
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																						
VOCs	Trichloroethene	79-01-6	mg/kg																						
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																						
VOCs	Vinyl chloride	75-01-4	mg/kg																						
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-10		CXRF-11		CXRF-11		CXRF-11		CXRF-12		CXRF-12		CXRF-12		CXRF-13		CXRF-13		CXRF-13		CXRF-14	
			Field Sample ID	CXRF-10(8-10)		CXRF-11(0-5)		CXRF-11(5-8)		CXRF-11(8-10)		CXRF-12(0-5)		CXRF-12(5-8)		CXRF-12(8-10)		CXRF-13(0-5)		CXRF-13(5-8)		CXRF-13(8-10)		CXRF-14(0-5)	
			Sample Start Depth	8		0		5		8		0		5		8		0		5		8		0	
			Sample End Depth	10		5		8		10		5		8		10		5		8		10		5	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg																						
EPH	Acenaphthene	83-32-9	mg/kg																						
EPH	Acenaphthylene	208-96-8	mg/kg																						
EPH	Anthracene	120-12-7	mg/kg																						
EPH	Benzo[a]anthracene	56-55-3	mg/kg																						
EPH	Benzo[a]pyrene	50-32-8	mg/kg																						
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																						
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																						
EPH	C11-C22 Aromatics	NA	mg/kg																						
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																						
EPH	C19-C36 Aliphatics	NA	mg/kg																						
EPH	C9-C18 Aliphatics	NA	mg/kg																						
EPH	Chrysene	218-01-9	mg/kg																						
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
EPH	Fluoranthene	206-44-0	mg/kg																						
EPH	Fluorene	86-73-7	mg/kg																						
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
EPH	Naphthalene	91-20-3	mg/kg																						
EPH	Phenanthrene	85-01-8	mg/kg																						
EPH	Pyrene	129-00-0	mg/kg																						
EPH	Total EPH	NA	mg/kg																						
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-10		CXRF-11		CXRF-11		CXRF-11		CXRF-12		CXRF-12		CXRF-12		CXRF-13		CXRF-13		CXRF-13		CXRF-14	
			Field Sample ID	CXRF-10(8-10)		CXRF-11(0-5)		CXRF-11(5-8)		CXRF-11(8-10)		CXRF-12(0-5)		CXRF-12(5-8)		CXRF-12(8-10)		CXRF-13(0-5)		CXRF-13(5-8)		CXRF-13(8-10)		CXRF-14(0-5)	
			Sample Start Depth	8		0		5		8		0		5		8		0		5		8		0	
			Sample End Depth	10		5		8		10		5		8		10		5		8		10		5	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																						
VPH	Ethylbenzene	100-41-4	mg/kg																						
VPH	m&p-Xylenes	NA	mg/kg																						
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VPH	Naphthalene	91-20-3	mg/kg																						
VPH	o-Xylene	95-47-6	mg/kg																						
VPH	Toluene	108-88-3	mg/kg																						
VPH	Total VPH	NA	mg/kg																						
Metals	Aluminum	7429-90-5	mg/kg																						
Metals	Antimony	7440-36-0	mg/kg																						
Metals	Arsenic	7440-38-2	mg/kg																						
Metals	Barium	7440-39-3	mg/kg																						
Metals	Beryllium	7440-41-7	mg/kg																						
Metals	Cadmium	7440-43-9	mg/kg																						
Metals	Calcium	7440-70-2	mg/kg																						
Metals	Chromium	7440-47-3	mg/kg	110	U	93		240	B	68	U	75	U	723		423		719		980	B	810		125	
Metals	Cobalt	7440-48-4	mg/kg																						
Metals	Copper	7440-50-8	mg/kg																						
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg					25												25					
Metals	Iron	7439-89-6	mg/kg																						
Metals	Lead	7439-92-1	mg/kg																						
Metals	Magnesium	7439-95-4	mg/kg																						
Metals	Manganese	7439-96-5	mg/kg																						
Metals	Mercury	7439-97-6	mg/kg																						
Metals	Nickel	7440-02-0	mg/kg																						
Metals	Potassium	7440-09-7	mg/kg																						
Metals	Selenium	7782-49-2	mg/kg																						
Metals	Silver	7440-22-4	mg/kg																						
Metals	Sodium	7440-23-5	mg/kg																						
Metals	Thallium	7440-28-0	mg/kg																						
Metals	Vanadium	7440-62-2	mg/kg																						
Metals	Zinc	7440-66-6	mg/kg																						
Cyanide	Cyanide, Reactive	NA	mg/kg																						
Other	Sulfide, Reactive	NA	mg/kg																						
Other	TOTAL ORGANIC CARBON	NA	mg/kg																						
TIC	.alpha.-Pinene	NA	mg/kg																						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																						
TIC	1-4-Methanonaphthalene	NA	mg/kg																						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																						
TIC	1-Methyl-Pyrene	NA	mg/kg																						
TIC	1S-.alpha.-Pinene	NA	mg/kg																						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																						
TIC	2-Methylanthracene	613-12-7	mg/kg																						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																						
TIC	Cyclic octaatomic sulfur	NA	mg/kg																						
TIC	Cyclopentane, methyl-	NA	mg/kg																						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																						
TIC	Hexanal	0066-25-1	mg/kg																						
TIC	Pentane, 2-methyl-	NA	mg/kg																						
TIC	Pentane, 3-methyl-	NA	mg/kg																						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-14		CXRF-14		CXRF-15		CXRF-15		CXRF-15		CXRF-16		CXRF-16		CXRF-16		CXRF-17		CXRF-17	
			Field Sample ID	CXRF-14(5-8)		CXRF-14(8-10)		CXRF-15(0-5)		CXRF-15(5-8)		CXRF-15(8-10)		CXRF-16(0-5)		CXRF-16(5-8)		CXRF-16(8-10)		CXRF-17(0-5)		CXRF-17(5-8)	
			Sample Start Depth	5		8		0		5		8		0		5		8		0		5	
			Sample End Depth	8		10		5		8		10		5		8		10		5		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-14		CXRF-14		CXRF-15		CXRF-15		CXRF-15		CXRF-16		CXRF-16		CXRF-16		CXRF-17		CXRF-17	
			Field Sample ID	CXRF-14(5-8)		CXRF-14(8-10)		CXRF-15(0-5)		CXRF-15(5-8)		CXRF-15(8-10)		CXRF-16(0-5)		CXRF-16(5-8)		CXRF-16(8-10)		CXRF-17(0-5)		CXRF-17(5-8)	
			Sample Start Depth	5		8		0		5		8		0		5		8		0		5	
			Sample End Depth	8		10		5		8		10		5		8		10		5		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-14		CXRF-14		CXRF-15		CXRF-15		CXRF-15		CXRF-16		CXRF-16		CXRF-16		CXRF-17		CXRF-17	
			Field Sample ID	CXRF-14(5-8)		CXRF-14(8-10)		CXRF-15(0-5)		CXRF-15(5-8)		CXRF-15(8-10)		CXRF-16(0-5)		CXRF-16(5-8)		CXRF-16(8-10)		CXRF-17(0-5)		CXRF-17(5-8)	
			Sample Start Depth	5		8		0		5		8		0		5		8		0		5	
			Sample End Depth	8		10		5		8		10		5		8		10		5		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg																				
Metals	Arsenic	7440-38-2	mg/kg																				
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg																				
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	110	U	90	U	139		164		186		235		110	B	134		92		83	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg																				
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg													1							
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg																				
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-17		CXRF-18		CXRF-18		CXRF-18		CXRF-19		CXRF-19		CXRF-19		CXRF-19		CXRF-20		CXRF-20	
			Field Sample ID	CXRF-17(8-10)		CXRF-18(0-5)		CXRF-18(5-8)		CXRF-18(8-10)		CXRF-19(0-5)		CXRF-19(10-14)		CXRF-19(5-8)		CXRF-19(8-10)		CXRF-20(0-5)		CXRF-20(10-12)	
			Sample Start Depth	8		0		5		8		0		10		5		8		0		10	
			Sample End Depth	10		5		8		10		5		14		8		10		5		12	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-17		CXRF-18		CXRF-18		CXRF-18		CXRF-19		CXRF-19		CXRF-19		CXRF-19		CXRF-20		CXRF-20	
			Field Sample ID	CXRF-17(8-10)		CXRF-18(0-5)		CXRF-18(5-8)		CXRF-18(8-10)		CXRF-19(0-5)		CXRF-19(10-14)		CXRF-19(5-8)		CXRF-19(8-10)		CXRF-20(0-5)		CXRF-20(10-12)	
			Sample Start Depth	8		0		5		8		0		10		5		8		0		10	
			Sample End Depth	10		5		8		10		5		14		8		10		5		12	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-17		CXRF-18		CXRF-18		CXRF-18		CXRF-19		CXRF-19		CXRF-19		CXRF-19		CXRF-20		CXRF-20	
			Field Sample ID	CXRF-17(8-10)		CXRF-18(0-5)		CXRF-18(5-8)		CXRF-18(8-10)		CXRF-19(0-5)		CXRF-19(10-14)		CXRF-19(5-8)		CXRF-19(8-10)		CXRF-20(0-5)		CXRF-20(10-12)	
			Sample Start Depth	8		0		5		8		0		10		5		8		0		10	
			Sample End Depth	10		5		8		10		5		14		8		10		5		12	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg																				
Metals	Arsenic	7440-38-2	mg/kg																				
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg																				
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	50	U	85	U	34	B	45	U	136		140	U	120		97		120	U	143	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg																				
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg					0.8															
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg																				
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-20		CXRF-20		CXRF-21		CXRF-21		CXRF-21		CXRF-22		CXRF-22		CXRF-22		CXRF-22		CXRF-23	
			Field Sample ID	CXRF-20(5-8)		CXRF-20(8-10)		CXRF-21(0-5)		CXRF-21(5-8)		CXRF-21(8-11)		CXRF-22(0-5)		CXRF-22(10-12)		CXRF-22(5-8)		CXRF-22(8-10)		CXRF-23(0-5)	
			Sample Start Depth	5		8		0		5		8		0		10		5		8		0	
			Sample End Depth	8		10		5		8		11		5		12		8		10		5	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-20		CXRF-20		CXRF-21		CXRF-21		CXRF-21		CXRF-22		CXRF-22		CXRF-22		CXRF-22		CXRF-23	
			Field Sample ID	CXRF-20(5-8)		CXRF-20(8-10)		CXRF-21(0-5)		CXRF-21(5-8)		CXRF-21(8-11)		CXRF-22(0-5)		CXRF-22(10-12)		CXRF-22(5-8)		CXRF-22(8-10)		CXRF-23(0-5)	
			Sample Start Depth	5		8		0		5		8		0		10		5		8		0	
			Sample End Depth	8		10		5		8		11		5		12		8		10		5	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-20		CXRF-20		CXRF-21		CXRF-21		CXRF-21		CXRF-22		CXRF-22		CXRF-22		CXRF-22		CXRF-23	
			Field Sample ID	CXRF-20(5-8)		CXRF-20(8-10)		CXRF-21(0-5)		CXRF-21(5-8)		CXRF-21(8-11)		CXRF-22(0-5)		CXRF-22(10-12)		CXRF-22(5-8)		CXRF-22(8-10)		CXRF-23(0-5)	
			Sample Start Depth	5		8		0		5		8		0		10		5		8		0	
			Sample End Depth	8		10		5		8		11		5		12		8		10		5	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg																				
Metals	Arsenic	7440-38-2	mg/kg																				
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg																				
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	161		140	U	597		727		232		358		793		399		560	B	1554	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg																				
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg																	41			
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg																				
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-23		CXRF-23		CXRF-23		CXRF-23		CXRF-24		CXRF-25		CXRF-25		CXRF-25		CXRF-25		CXRF-26	
			Field Sample ID	CXRF-23(10-12)		CXRF-23(10-12)		CXRF-23(5-8)		CXRF-23(8-10)		CXRF-24(0-5)		CXRF-25(0-5)		CXRF-25(10-12)		CXRF-25(5-8)		CXRF-25(8-10)		CXRF-26(0-5)	
			Sample Start Depth	10		10		5		8		0		0		10		5		8		0	
			Sample End Depth	11		12		8		10		5		5		12		8		10		5	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-23		CXRF-23		CXRF-23		CXRF-23		CXRF-24		CXRF-25		CXRF-25		CXRF-25		CXRF-25		CXRF-26	
			Field Sample ID	CXRF-23(10-12)		CXRF-23(10-12)		CXRF-23(5-8)		CXRF-23(8-10)		CXRF-24(0-5)		CXRF-25(0-5)		CXRF-25(10-12)		CXRF-25(5-8)		CXRF-25(8-10)		CXRF-26(0-5)	
			Sample Start Depth	10		10		5		8		0		0		10		5		8		0	
			Sample End Depth	11		12		8		10		5		5		12		8		10		5	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-23		CXRF-23		CXRF-23		CXRF-23		CXRF-24		CXRF-25		CXRF-25		CXRF-25		CXRF-25		CXRF-26	
			Field Sample ID	CXRF-23(10-12)		CXRF-23(10-12)		CXRF-23(5-8)		CXRF-23(8-10)		CXRF-24(0-5)		CXRF-25(0-5)		CXRF-25(10-12)		CXRF-25(5-8)		CXRF-25(8-10)		CXRF-26(0-5)	
			Sample Start Depth	10		10		5		8		0		0		10		5		8		0	
			Sample End Depth	11		12		8		10		5		5		12		8		10		5	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg																				
Metals	Arsenic	7440-38-2	mg/kg																				
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg																				
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	1600	B	1870		1135		1262		99		212		116	U	132	U	128	U	129	U
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg																				
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	67																			
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg																				
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-26		CXRF-26		CXRF-26		CXRF-27		CXRF-27		CXRF-27		CXRF-27		CXRF-28		CXRF-28		CXRF-28	
			Field Sample ID	CXRF-26(10-14)		CXRF-26(5-8)		CXRF-26(8-10)		CXRF-27(0-5)		CXRF-27(10-14)		CXRF-27(5-8)		CXRF-27(8-10)		CXRF-28(0-5)		CXRF-28(10-14)		CXRF-28(5-8)	
			Sample Start Depth	10		5		8		0		10		5		8		0		10		5	
			Sample End Depth	14		8		10		5		14		8		10		5		14		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-26		CXRF-26		CXRF-26		CXRF-27		CXRF-27		CXRF-27		CXRF-27		CXRF-28		CXRF-28		CXRF-28	
			Field Sample ID	CXRF-26(10-14)		CXRF-26(5-8)		CXRF-26(8-10)		CXRF-27(0-5)		CXRF-27(10-14)		CXRF-27(5-8)		CXRF-27(8-10)		CXRF-28(0-5)		CXRF-28(10-14)		CXRF-28(5-8)	
			Sample Start Depth	10		5		8		0		10		5		8		0		10		5	
			Sample End Depth	14		8		10		5		14		8		10		5		14		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-26		CXRF-26		CXRF-26		CXRF-27		CXRF-27		CXRF-27		CXRF-27		CXRF-28		CXRF-28		CXRF-28	
			Field Sample ID	CXRF-26(10-14)		CXRF-26(5-8)		CXRF-26(8-10)		CXRF-27(0-5)		CXRF-27(10-14)		CXRF-27(5-8)		CXRF-27(8-10)		CXRF-28(0-5)		CXRF-28(10-14)		CXRF-28(5-8)	
			Sample Start Depth	10		5		8		0		10		5		8		0		10		5	
			Sample End Depth	14		8		10		5		14		8		10		5		14		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg																				
Metals	Arsenic	7440-38-2	mg/kg																				
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg																				
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	66	B	154	U	99	U	190		152	U	400	B	145		145	U	285		130	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg																				
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.5										12									
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg																				
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-28		CXRF-29		CXRF-29		CXRF-29		CXRF-29		CXRF-30		CXRF-30		CXRF-30		CXRF-31		CXRF-31	
			Field Sample ID	CXRF-28(8-10)		CXRF-29(0-5)		CXRF-29(10-15)		CXRF-29(5-8)		CXRF-29(8-10)		CXRF-30(0-5)/TW1		CXRF-30(10-11)/TW1		CXRF-30(5-8)/TW1		CXRF-31(0-5)/TW2		CXRF-31(5-8)/TW2	
			Sample Start Depth	8		0		10		5		8		0		10		5		0		5	
			Sample End Depth	10		5		15		8		10		5		11		8		5		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-28		CXRF-29		CXRF-29		CXRF-29		CXRF-29		CXRF-30		CXRF-30		CXRF-30		CXRF-31		CXRF-31	
			Field Sample ID	CXRF-28(8-10)		CXRF-29(0-5)		CXRF-29(10-15)		CXRF-29(5-8)		CXRF-29(8-10)		CXRF-30(0-5)/TW1		CXRF-30(10-11)/TW1		CXRF-30(5-8)/TW1		CXRF-31(0-5)/TW2		CXRF-31(5-8)/TW2	
			Sample Start Depth	8		0		10		5		8		0		10		5		0		5	
			Sample End Depth	10		5		15		8		10		5		11		8		5		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-28		CXRF-29		CXRF-29		CXRF-29		CXRF-29		CXRF-30		CXRF-30		CXRF-30		CXRF-31		CXRF-31	
			Field Sample ID	CXRF-28(8-10)		CXRF-29(0-5)		CXRF-29(10-15)		CXRF-29(5-8)		CXRF-29(8-10)		CXRF-30(0-5)/TW1		CXRF-30(10-11)/TW1		CXRF-30(5-8)/TW1		CXRF-31(0-5)/TW2		CXRF-31(5-8)/TW2	
			Sample Start Depth	8		0		10		5		8		0		10		5		0		5	
			Sample End Depth	10		5		15		8		10		5		11		8		5		8	
			Sample Date	8/31/2017		8/31/2017		8/31/2017		8/31/2017		8/31/2017		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg																				
Metals	Arsenic	7440-38-2	mg/kg																				
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg																				
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	128		135	U	155	U	100		132	U	43		291		670		42		300	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg																				
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg											0.2	J			0.3	J	0.5	U	1.9	
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg																				
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-32		CXRF-32		CXRF-32		CXRF-33		CXRF-33		CXRF-33		CXRF-34		CXRF-34		CXRF-34		CXRF-35	
			Field Sample ID	CXRF-32(0-5)/TW3		CXRF-32(10-13)/TW3		CXRF-32(5-8)/TW3		CXRF-33(0-5)/TW4		CXRF-33(10-12)/TW4		CXRF-33(5-8)/TW4		CXRF-34(0-5)		CXRF-34(5-8)		CXRF-34(8-10)		CXRF-35(0-5)	
			Sample Start Depth	0		10		5		0		10		5		0		5		8		0	
			Sample End Depth	5		13		8		5		12		8		5		8		10		5	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-32		CXRF-32		CXRF-32		CXRF-33		CXRF-33		CXRF-33		CXRF-34		CXRF-34		CXRF-34		CXRF-35	
			Field Sample ID	CXRF-32(0-5)/TW3		CXRF-32(10-13)/TW3		CXRF-32(5-8)/TW3		CXRF-33(0-5)/TW4		CXRF-33(10-12)/TW4		CXRF-33(5-8)/TW4		CXRF-34(0-5)		CXRF-34(5-8)		CXRF-34(8-10)		CXRF-35(0-5)	
			Sample Start Depth	0		10		5		0		10		5		0		5		8		0	
			Sample End Depth	5		13		8		5		12		8		5		8		10		5	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-32		CXRF-32		CXRF-32		CXRF-33		CXRF-33		CXRF-33		CXRF-34		CXRF-34		CXRF-34		CXRF-35	
			Field Sample ID	CXRF-32(0-5)/TW3		CXRF-32(10-13)/TW3		CXRF-32(5-8)/TW3		CXRF-33(0-5)/TW4		CXRF-33(10-12)/TW4		CXRF-33(5-8)/TW4		CXRF-34(0-5)		CXRF-34(5-8)		CXRF-34(8-10)		CXRF-35(0-5)	
			Sample Start Depth	0		10		5		0		10		5		0		5		8		0	
			Sample End Depth	5		13		8		5		12		8		5		8		10		5	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg																				
Metals	Arsenic	7440-38-2	mg/kg																				
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg																				
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	41		730		1442		54		759		840		62		340		389		85	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg																				
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.5	U	6.8				0.2	J			2.1		0.2	J	0.6	U			0.2	J
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg																				
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-35		CXRF-35		CXRF-35		CXRF-36		CXRF-36		CXRF-36		CXRF-36		CXRF-37		CXRF-37		CXRF-37	
			Field Sample ID	CXRF-35(10-14)		CXRF-35(5-8)		CXRF-35(8-10)		CXRF-36(0-5)		CXRF-36(10-13)		CXRF-36(5-7)		CXRF-36(7-10)		CXRF-37(0-5)		CXRF-37(10-14)		CXRF-37(5-7)	
			Sample Start Depth	10		5		8		0		10		5		7		0		10		5	
			Sample End Depth	14			8			5		13		7		10		5		14		7	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																				
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																				
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																				
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																				
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																				
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																				
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																				
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																				
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																				
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																				
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																				
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																				
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																				
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																				
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																				
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																				
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
VOCs	1,4-Dioxane	123-91-1	mg/kg																				
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																				
VOCs	2-Chlorotoluene	95-49-8	mg/kg																				
VOCs	2-Hexanone	591-78-6	mg/kg																				
VOCs	4-Chlorotoluene	106-43-4	mg/kg																				
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																				
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																				
VOCs	Acetone	67-64-1	mg/kg																				
VOCs	Benzene	71-43-2	mg/kg																				
VOCs	Bromobenzene	108-86-1	mg/kg																				
VOCs	Bromoform	75-25-2	mg/kg																				
VOCs	Bromomethane	74-83-9	mg/kg																				
VOCs	Carbon disulfide	75-15-0	mg/kg																				
VOCs	Carbon tetrachloride	56-23-5	mg/kg																				
VOCs	Chlorobenzene	108-90-7	mg/kg																				
VOCs	Chlorobromomethane	74-97-5	mg/kg																				
VOCs	Chlorodibromomethane	124-48-1	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	Chloroethane	75-00-3	mg/kg																				
VOCs	Chloroform	67-66-3	mg/kg																				
VOCs	Chloromethane	74-87-3	mg/kg																				
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																				
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																				
VOCs	Dibromomethane	74-95-3	mg/kg																				
VOCs	Dichlorobromomethane	75-27-4	mg/kg																				
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																				
VOCs	DIETHYL ETHER	60-29-7	mg/kg																				
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																				
VOCs	Ethylbenzene	100-41-4	mg/kg																				
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																				
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																				
VOCs	m&p-Xylenes	NA	mg/kg																				
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																				
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VOCs	Methylene Chloride	75-09-2	mg/kg																				
VOCs	n-Butylbenzene	104-51-8	mg/kg																				
VOCs	N-Propylbenzene	103-65-1	mg/kg																				
VOCs	Naphthalene	91-20-3	mg/kg																				
VOCs	o-Xylene	95-47-6	mg/kg																				
VOCs	sec-Butylbenzene	135-98-8	mg/kg																				
VOCs	Styrene	100-42-5	mg/kg																				
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																				
VOCs	tert-Butylbenzene	98-06-6	mg/kg																				
VOCs	Tetrachloroethene	127-18-4	mg/kg																				
VOCs	Tetrahydrofuran	109-99-9	mg/kg																				
VOCs	Toluene	108-88-3	mg/kg																				
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																				
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																				
VOCs	Trichloroethene	79-01-6	mg/kg																				
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																				
VOCs	Vinyl chloride	75-01-4	mg/kg																				
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-35		CXRF-35		CXRF-35		CXRF-36		CXRF-36		CXRF-36		CXRF-36		CXRF-37		CXRF-37		CXRF-37	
			Field Sample ID	CXRF-35(10-14)		CXRF-35(5-8)		CXRF-35(8-10)		CXRF-36(0-5)		CXRF-36(10-13)		CXRF-36(5-7)		CXRF-36(7-10)		CXRF-37(0-5)		CXRF-37(10-14)		CXRF-37(5-7)	
			Sample Start Depth	10		5		8		0		10		5		7		0		10		5	
			Sample End Depth	14			8			5		13		7		10		5		14		7	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																				
EPH	Acenaphthene	83-32-9	mg/kg																				
EPH	Acenaphthylene	208-96-8	mg/kg																				
EPH	Anthracene	120-12-7	mg/kg																				
EPH	Benzo[a]anthracene	56-55-3	mg/kg																				
EPH	Benzo[a]pyrene	50-32-8	mg/kg																				
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																				
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																				
EPH	C11-C22 Aromatics	NA	mg/kg																				
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																				
EPH	C19-C36 Aliphatics	NA	mg/kg																				
EPH	C9-C18 Aliphatics	NA	mg/kg																				
EPH	Chrysene	218-01-9	mg/kg																				
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
EPH	Fluoranthene	206-44-0	mg/kg																				
EPH	Fluorene	86-73-7	mg/kg																				
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
EPH	Naphthalene	91-20-3	mg/kg																				
EPH	Phenanthrene	85-01-8	mg/kg																				
EPH	Pyrene	129-00-0	mg/kg																				
EPH	Total EPH	NA	mg/kg																				
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-35		CXRF-35		CXRF-35		CXRF-36		CXRF-36		CXRF-36		CXRF-36		CXRF-37		CXRF-37		CXRF-37	
			Field Sample ID	CXRF-35(10-14)		CXRF-35(5-8)		CXRF-35(8-10)		CXRF-36(0-5)		CXRF-36(10-13)		CXRF-36(5-7)		CXRF-36(7-10)		CXRF-37(0-5)		CXRF-37(10-14)		CXRF-37(5-7)	
			Sample Start Depth	10		5		8		0		10		5		7		0		10		5	
			Sample End Depth	14			8			5		13		7		10		5		14		7	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																				
Metals	Antimony	7440-36-0	mg/kg																				
Metals	Arsenic	7440-38-2	mg/kg																				
Metals	Barium	7440-39-3	mg/kg																				
Metals	Beryllium	7440-41-7	mg/kg																				
Metals	Cadmium	7440-43-9	mg/kg																				
Metals	Calcium	7440-70-2	mg/kg																				
Metals	Chromium	7440-47-3	mg/kg	396		157		1100		130		230		102		120	J	54	F1	150		99	
Metals	Cobalt	7440-48-4	mg/kg																				
Metals	Copper	7440-50-8	mg/kg																				
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg					0.2	J	0.7		2.4						0.2	J				
Metals	Iron	7439-89-6	mg/kg																				
Metals	Lead	7439-92-1	mg/kg																				
Metals	Magnesium	7439-95-4	mg/kg																				
Metals	Manganese	7439-96-5	mg/kg																				
Metals	Mercury	7439-97-6	mg/kg																				
Metals	Nickel	7440-02-0	mg/kg																				
Metals	Potassium	7440-09-7	mg/kg																				
Metals	Selenium	7782-49-2	mg/kg																				
Metals	Silver	7440-22-4	mg/kg																				
Metals	Sodium	7440-23-5	mg/kg																				
Metals	Thallium	7440-28-0	mg/kg																				
Metals	Vanadium	7440-62-2	mg/kg																				
Metals	Zinc	7440-66-6	mg/kg																				
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-37		CXRF-38		CXRF-38		CXRF-38		CXRF-38		CXRF-39		CXRF-39		CXRF-39		CXRF-39		D-B1	
			Field Sample ID	CXRF-37(7-10)		CXRF-38(0-5)		CXRF-38(10-12)		CXRF-38(5-7)		CXRF-38(7-10)		CXRF-39(0-5)		CXRF-39(10-12)		CXRF-39(5-7)		CXRF-39(7-10)		C022007-DB1	
			Sample Start Depth	7		0		10		5		7		0		10		5		7		8	
			Sample End Depth	10		5		12		7		10		5		12		7		10		9	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		2/20/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg																			0.0024	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg																			0.0024	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg																			0.0024	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg																			0.0024	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg																			0.0024	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg																			0.0024	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg																			0.0024	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg																			0.0024	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg																			0.0024	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																			0.0024	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg																			0.0024	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg																			0.0024	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg																			0.0024	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																			0.0024	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg																			0.0024	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg																			0.0024	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg																			0.0024	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																			0.0024	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg																			0.0024	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																			0.0024	U
VOCs	1,4-Dioxane	123-91-1	mg/kg																			0.24	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg																			0.0024	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg																			0.0024	U
VOCs	2-Hexanone	591-78-6	mg/kg																			0.019	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg																			0.0024	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg																			0.0024	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg																			0.019	U
VOCs	Acetone	67-64-1	mg/kg																			0.24	UJ
VOCs	Benzene	71-43-2	mg/kg																			0.0024	U
VOCs	Bromobenzene	108-86-1	mg/kg																			0.0024	U
VOCs	Bromoform	75-25-2	mg/kg																			0.0024	U
VOCs	Bromomethane	74-83-9	mg/kg																			0.0049	U
VOCs	Carbon disulfide	75-15-0	mg/kg																			0.0024	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg																			0.0024	U
VOCs	Chlorobenzene	108-90-7	mg/kg																			0.0024	U
VOCs	Chlorobromomethane	74-97-5	mg/kg																			0.0024	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg																			0.0024	U
VOCs	Chloroethane	75-00-3	mg/kg																			0.0049	U
VOCs	Chloroform	67-66-3	mg/kg																			0.0024	U
VOCs	Chloromethane	74-87-3	mg/kg																			0.0049	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg																			0.0024	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg																			0.0024	U
VOCs	Dibromomethane	74-95-3	mg/kg																			0.0024	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg																			0.0024	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg																			0.0049	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg																			0.0024	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg																			0.0024	U
VOCs	Ethylbenzene	100-41-4	mg/kg																			0.0024	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg																			0.0024	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg																			0.0024	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg																			0.0024	U
VOCs	m&p-Xylenes	NA	mg/kg																			0.0024	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg																			0.019	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg																			0.0024	U
VOCs	Methylene Chloride	75-09-2	mg/kg																			0.0049	U
VOCs	n-Butylbenzene	104-51-8	mg/kg																			0.0024	U
VOCs	N-Propylbenzene	103-65-1	mg/kg																			0.0024	U
VOCs	Naphthalene	91-20-3	mg/kg																			0.024	U
VOCs	o-Xylene	95-47-6	mg/kg																			0.0024	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg																			0.0024	U
VOCs	Styrene	100-42-5	mg/kg																			0.0024	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg																			0.0024	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg																			0.0024	U
VOCs	Tetrachloroethene	127-18-4	mg/kg																			0.0024	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg																			0.019	U
VOCs	Toluene	108-88-3	mg/kg																			0.0024	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg																			0.0024	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg																			0.0024	U
VOCs	Trichloroethene	79-01-6	mg/kg																			0.0024	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg																			0.0024	U
VOCs	Vinyl chloride	75-01-4	mg/kg																			0.0049	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-37		CXRF-38		CXRF-38		CXRF-38		CXRF-38		CXRF-39		CXRF-39		CXRF-39		CXRF-39		D-B1	
			Field Sample ID	CXRF-37(7-10)		CXRF-38(0-5)		CXRF-38(10-12)		CXRF-38(5-7)		CXRF-38(7-10)		CXRF-39(0-5)		CXRF-39(10-12)		CXRF-39(5-7)		CXRF-39(7-10)		C022007-DB1	
			Sample Start Depth	7		0		10		5		7		0		10		5		7		8	
			Sample End Depth	10		5		12		7		10		5		12		7		10		9	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		2/20/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg																			0.37	U
EPH	Acenaphthene	83-32-9	mg/kg																			0.37	U
EPH	Acenaphthylene	208-96-8	mg/kg																			0.37	U
EPH	Anthracene	120-12-7	mg/kg																			0.37	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg																			0.37	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg																			0.37	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg																			0.37	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg																			0.37	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg																			0.37	U
EPH	C11-C22 Aromatics	NA	mg/kg																			3.7	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg																			3.7	U
EPH	C19-C36 Aliphatics	NA	mg/kg																			3.7	U
EPH	C9-C18 Aliphatics	NA	mg/kg																			3.7	U
EPH	Chrysene	218-01-9	mg/kg																			0.37	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg																			0.37	U
EPH	Fluoranthene	206-44-0	mg/kg																			0.37	U
EPH	Fluorene	86-73-7	mg/kg																			0.37	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																			0.37	U
EPH	Naphthalene	91-20-3	mg/kg																			0.37	U
EPH	Phenanthrene	85-01-8	mg/kg																			0.37	U
EPH	Pyrene	129-00-0	mg/kg																			0.37	U
EPH	Total EPH	NA	mg/kg																			3.7	U
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	CXRF-37		CXRF-38		CXRF-38		CXRF-38		CXRF-38		CXRF-39		CXRF-39		CXRF-39		CXRF-39		D-B1	
			Field Sample ID	CXRF-37(7-10)		CXRF-38(0-5)		CXRF-38(10-12)		CXRF-38(5-7)		CXRF-38(7-10)		CXRF-39(0-5)		CXRF-39(10-12)		CXRF-39(5-7)		CXRF-39(7-10)		C022007-DB1	
			Sample Start Depth	7		0		10		5		7		0		10		5		7		8	
			Sample End Depth	10		5		12		7		10		5		12		7		10		9	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		2/20/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg																			23,000	
Metals	Antimony	7440-36-0	mg/kg																			8.2	J
Metals	Arsenic	7440-38-2	mg/kg																			52	
Metals	Barium	7440-39-3	mg/kg																			100	B
Metals	Beryllium	7440-41-7	mg/kg																			1.2	U
Metals	Cadmium	7440-43-9	mg/kg																			0.54	J
Metals	Calcium	7440-70-2	mg/kg																			2,900	B
Metals	Chromium	7440-47-3	mg/kg	300		110		444		424		620		38		249		394		930		610	
Metals	Cobalt	7440-48-4	mg/kg																			19	
Metals	Copper	7440-50-8	mg/kg																			440	B
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.3	J	0.6						2.3		0.5	U					0.2	J	21	J
Metals	Iron	7439-89-6	mg/kg																			34,000	
Metals	Lead	7439-92-1	mg/kg																			7.7	
Metals	Magnesium	7439-95-4	mg/kg																			15,000	
Metals	Manganese	7439-96-5	mg/kg																			410	
Metals	Mercury	7439-97-6	mg/kg																			0.081	U
Metals	Nickel	7440-02-0	mg/kg																			74	
Metals	Potassium	7440-09-7	mg/kg																			7,200	J
Metals	Selenium	7782-49-2	mg/kg																			3	U
Metals	Silver	7440-22-4	mg/kg																			11	
Metals	Sodium	7440-23-5	mg/kg																			600	U
Metals	Thallium	7440-28-0	mg/kg																			6	U
Metals	Vanadium	7440-62-2	mg/kg																			59	
Metals	Zinc	7440-66-6	mg/kg																			69	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg																				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																				
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	D-S1		D-S2		D-S3		D-S4		E-B1		E-S1		E-S2		E-S3		E-S4		F-B1	
			Field Sample ID	C022007-DS1		C022007-DS2		C022007-DS3		C022007-DS4		C022207-EB1		C022207-ES1		C022207-ES2		C022207-ES3		C022207-ES4		C022207-FB1	
			Sample Start Depth	2		2		2		2		10		3		4		1		3		11	
			Sample End Depth	9		9		9		9		11		10		9		9		3		12	
			Sample Date	2/20/2007		2/20/2007		2/20/2007		2/20/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	J	0.0027	U	0.0027	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.24	U	0.23	U	0.27	U	0.3	U	0.27	U	0.29	U	0.26	U	12	U	0.27	U	0.27	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.019	U	0.019	U	0.021	U	0.024	U	0.021	U	0.023	U	0.021	U	1	U	0.021	U	0.021	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.019	U	0.019	U	0.021	U	0.024	U	0.021	U	0.023	U	0.021	U	1	U	0.021	U	0.021	U
VOCs	Acetone	67-64-1	mg/kg	0.24	UJ	0.23	U	0.27	U	0.3	UJ	0.27	UJ	0.29	UJ	0.26	UJ	12	U	0.27	UJ	0.27	UJ
VOCs	Benzene	71-43-2	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Bromoform	75-25-2	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Bromomethane	74-83-9	mg/kg	0.0048	U	0.0047	U	0.0053	U	0.0061	U	0.0053	U	0.0058	U	0.0051	U	0.25	U	0.0053	U	0.0053	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Chloroethane	75-00-3	mg/kg	0.0048	U	0.0047	U	0.0053	U	0.0061	U	0.0053	U	0.0058	U	0.0051	U	0.25	U	0.0053	U	0.0053	U
VOCs	Chloroform	67-66-3	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Chloromethane	74-87-3	mg/kg	0.0048	U	0.0047	U	0.0053	U	0.0061	U	0.0053	U	0.0058	U	0.0051	U	0.25	U	0.0053	U	0.0053	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026		0.12	U	0.0027	U	0.0027	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0048	U	0.0047	U	0.0053	U	0.0061	U	0.0053	U	0.0058	U	0.0051	U	0.25	U	0.0053	UJ	0.0053	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	UJ	0.0029	UJ	0.0026	UJ	0.12	U	0.0027	UJ	0.0027	UJ
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	m&p-Xylenes	NA	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0022	J	0.0027	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.019	U	0.019	U	0.021	U	0.024	U	0.021	U	0.023	U	0.021	U	1	U	0.021	U	0.021	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0048	U	0.0047	U	0.0053	U	0.0061	U	0.0053	U	0.0058	U	0.0051	U	0.25	U	0.0053	U	0.0053	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Naphthalene	91-20-3	mg/kg	0.024	U	0.023	U	0.027	U	0.03	U	0.027	U	0.029	U	0.026	U	1.2	U	0.027	U	0.027	U
VOCs	o-Xylene	95-47-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Styrene	100-42-5	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0024	J	0.12	U	0.0027	U	0.0027	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.019	U	0.019	U	0.021	U	0.024	U	0.021	U	0.023	U	0.021	U	1	U	0.021	U	0.021	U
VOCs	Toluene	108-88-3	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0075		0.031		0.088	J	0.0017	J	0.0027	U
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0024	U	0.0023	U	0.0027	U	0.003	U	0.0027	U	0.0029	U	0.0026	U	0.12	U	0.0027	U	0.0027	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0048	U	0.0047	U	0.0053	U	0.0061	U	0.0053	U	0.0058	U	0.0051	U	0.25	U	0.0053	U	0.0053	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	D-S1		D-S2		D-S3		D-S4		E-B1		E-S1		E-S2		E-S3		E-S4		F-B1	
			Field Sample ID	C022007-DS1		C022007-DS2		C022007-DS3		C022007-DS4		C022207-EB1		C022207-ES1		C022207-ES2		C022207-ES3		C022207-ES4		C022207-FB1	
			Sample Start Depth	2		2		2		2		10		3		4		1		3		11	
			Sample End Depth	9		9		9		9		11		10		9		9		3		12	
			Sample Date	2/20/2007		2/20/2007		2/20/2007		2/20/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.37	U	0.35	U	0.38	U
EPH	Acenaphthene	83-32-9	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.37	U	0.35	U	0.38	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.37	U	0.35	U	0.38	U
EPH	Anthracene	120-12-7	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.53		0.35	U	0.38	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	1.3		0.45		0.38	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.84		0.35	U	0.38	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.83		0.35	U	0.38	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.37	U	0.35	U	0.38	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.83		0.35	U	0.38	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.6	U	3.6	U	3.7	U	3.7	U	6		5.1		3.7	U	21		19		5.1	J
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	3.6	U	3.6	U	3.7	U	3.7	U	6		5.1		3.7	U	33		22		5.1	J
EPH	C19-C36 Aliphatics	NA	mg/kg	3.6	U	3.6	U	3.7	U	3.7	U	4.3		3.6	U	3.7	U	3.7	U	8		3.8	U
EPH	C9-C18 Aliphatics	NA	mg/kg	3.6	U	3.6	U	3.7	U	3.7	U	3.7	U	3.6	U	3.7	U	3.7	U	25		3.8	U
EPH	Chrysene	218-01-9	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.96		0.46		0.38	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.37	U	0.35	U	0.38	U
EPH	Fluoranthene	206-44-0	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	2.4		0.83		0.38	U
EPH	Fluorene	86-73-7	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.37	U	0.35	U	0.38	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.39		0.35	U	0.38	U
EPH	Naphthalene	91-20-3	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	0.37	U	0.35	U	0.38	U
EPH	Phenanthrene	85-01-8	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	1.4		0.59		0.38	U
EPH	Pyrene	129-00-0	mg/kg	0.36	U	0.36	U	0.37	U	0.37	U	0.37	U	0.36	U	0.37	U	2.2		0.73		0.38	U
EPH	Total EPH	NA	mg/kg	3.6	U	3.6	U	3.7	U	3.7	U	10		5.1		3.7	U	21		51		5.1	J
VPH	Benzene	71-43-2	mg/kg																				
VPH	C5-C8 Aliphatics	NA	mg/kg																				
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																				
VPH	C9-C10 Aromatics	NA	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	D-S1		D-S2		D-S3		D-S4		E-B1		E-S1		E-S2		E-S3		E-S4		F-B1	
			Field Sample ID	C022007-DS1		C022007-DS2		C022007-DS3		C022007-DS4		C022207-EB1		C022207-ES1		C022207-ES2		C022207-ES3		C022207-ES4		C022207-FB1	
			Sample Start Depth	2		2		2		2		10		3		4		1		3		11	
			Sample End Depth	9		9		9		9		11		10		9		9		3		12	
			Sample Date	2/20/2007		2/20/2007		2/20/2007		2/20/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/22/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																				
VPH	Ethylbenzene	100-41-4	mg/kg																				
VPH	m&p-Xylenes	NA	mg/kg																				
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																				
VPH	Naphthalene	91-20-3	mg/kg																				
VPH	o-Xylene	95-47-6	mg/kg																				
VPH	Toluene	108-88-3	mg/kg																				
VPH	Total VPH	NA	mg/kg																				
Metals	Aluminum	7429-90-5	mg/kg	13,000		18,000		18,000		17,000		14,000		8,200		14,000		13,000		9,800		9,900	
Metals	Antimony	7440-36-0	mg/kg	5.3	J	9.3	J	5.9	J	3.5	J	20	J	14	J	3.4	UJ	2.9	J	5.5	J	2.1	J
Metals	Arsenic	7440-38-2	mg/kg	46		47		45		31		54		32		28		40		56		21	
Metals	Barium	7440-39-3	mg/kg	56	B	79	B	70	B	77	B	70		36		47		44		30		33	
Metals	Beryllium	7440-41-7	mg/kg	1.3	U	1.2	U	1.4	U	1.1	U	1.3	U	1.3	U	1.4	U	1.2	U	1.4	U	1.3	U
Metals	Cadmium	7440-43-9	mg/kg	0.36	J	0.43	J	0.43	J	0.38	J	0.61	J	0.25	J	0.6	J	0.3	J	0.2	J	0.28	J
Metals	Calcium	7440-70-2	mg/kg	1,800	B	2,000	B	1,900	B	1,800	B	2,700	B	1,300	B	1,700	B	1,500	B	1,300	B	1,700	B
Metals	Chromium	7440-47-3	mg/kg	430		740		430		250		1600	J	990	J	33	J	200	J	390	J	85	J
Metals	Cobalt	7440-48-4	mg/kg	11		13		13		11		14		5.6		8.3		9.4		7.5		7.3	
Metals	Copper	7440-50-8	mg/kg	180	B	260	B	190	B	370	B	790	J	84	J	26	J	28	J	110	J	180	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	32	J	58	J	0.57	J	32	J	180		43	J	2.1	UJ	60	J	2.4	J	0.24	J
Metals	Iron	7439-89-6	mg/kg	22,000		26,000		28,000		25,000		28,000		17,000		17,000		17,000		15,000		15,000	
Metals	Lead	7439-92-1	mg/kg	7.1		7.5		8.7		6.3		38		86		40		100		12		4.2	
Metals	Magnesium	7439-95-4	mg/kg	6,900		9,300		9,300		8,700		7,400		4,000		5,200		5,300		4,900		4,700	
Metals	Manganese	7439-96-5	mg/kg	280		380		380		420		1,000		150		280		270		190		440	
Metals	Mercury	7439-97-6	mg/kg	0.1	U	0.096	U	0.094	U	0.1	U	0.069	U	0.089	U	0.064	J	0.1	U	0.092	U	0.098	U
Metals	Nickel	7440-02-0	mg/kg	41		47		48		43		53		22		29		32		28		29	
Metals	Potassium	7440-09-7	mg/kg	3,000	J	4,000	J	3,800	J	4,200	J	4,700	J	1,700	J	1,600	J	1,900	J	1,600	J	1,900	J
Metals	Selenium	7782-49-2	mg/kg	3.4	U	3.1	U	3.5	U	2.8	U	3.3	U	3.3	U	3.4	U	2.9	U	3.4	U	3.2	U
Metals	Silver	7440-22-4	mg/kg	8		14		7.5		3.8		33		20		3.4	U	3.4		7.4		1	J
Metals	Sodium	7440-23-5	mg/kg	610	U	610	U	690	U	570	U	64	U	38	U	44	U	35	U	34	U	650	U
Metals	Thallium	7440-28-0	mg/kg	6.7	U	6.1	U	6.9	U	5.7	U	6.6	U	6.7	U	6.9	U	5.9	U	6.8	U	6.5	U
Metals	Vanadium	7440-62-2	mg/kg	30		39		35		33		30		20		25		24		21		18	
Metals	Zinc	7440-66-6	mg/kg	38		44		45		40		50		22		59		33		22		26	
Cyanide	Cyanide, Reactive	NA	mg/kg																				
Other	Sulfide, Reactive	NA	mg/kg																				
Other	TOTAL ORGANIC CARBON	NA	mg/kg																				
TIC	.alpha.-Pinene	NA	mg/kg															0.76	NJ				
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																				
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																				
TIC	1-4-Methanonaphthalene	NA	mg/kg																				
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																				
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																				
TIC	1-Methyl-Pyrene	NA	mg/kg																				
TIC	1S-.alpha.-Pinene	NA	mg/kg																				
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																				
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg					0.00096	NJ														
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																				
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																				
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																				
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																				
TIC	2-Methylanthracene	613-12-7	mg/kg																				
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																				
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																				
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																				
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																				
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg															1.1	NJ				
TIC	Cyclic octaatomic sulfur	NA	mg/kg																				
TIC	Cyclopentane, methyl-	NA	mg/kg																				
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																				
TIC	Hexanal	0066-25-1	mg/kg																				
TIC	Pentane, 2-methyl-	NA	mg/kg																				
TIC	Pentane, 3-methyl-	NA	mg/kg																				
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	F-S1		F-S2		F-S3		F-S4		G-B1		G-S1		G-S2		G-S3		G-S4		PAH-B1	
			Field Sample ID	C022207-FS1		C022207-FS2		C022207-FS3		C022207-FS4		C022107-GB1		C022107-GS1		C022107-GS2		C022107-GS3		C022107-GS4		C022007-PAHB1	
			Sample Start Depth	4		5		4		3		11		4		4		4		4		11	
			Sample End Depth	11		11		11		12		12		5		5		5		5		12	
			Sample Date	2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/21/2007		2/21/2007		2/21/2007		2/21/2007		2/21/2007		2/20/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.25	U	0.23	U	0.26	U	0.25	U	0.24	U	0.24	U	0.18	U	0.26	U	0.18	U	0.24	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.02	U	0.019	U	0.021	U	0.02	U	0.019	U	0.019	U	0.014	U	0.021	U	0.015	U	0.019	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.02	U	0.019	U	0.021	U	0.02	U	0.019	U	0.019	U	0.014	U	0.021	U	0.015	U	0.019	U
VOCs	Acetone	67-64-1	mg/kg	0.25	UJ	0.23	UJ	0.26	UJ	0.25	UJ	0.24	UJ	0.24	UJ	0.18	UJ	0.26	UJ	0.18	UJ	0.24	UJ
VOCs	Benzene	71-43-2	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Bromoform	75-25-2	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Bromomethane	74-83-9	mg/kg	0.0049	U	0.0047	U	0.0052	U	0.0049	U	0.0049	U	0.0048	U	0.0036	U	0.0052	U	0.0036	U	0.0048	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Chloroethane	75-00-3	mg/kg	0.0049	U	0.0047	U	0.0052	U	0.0049	U	0.0049	U	0.0048	U	0.0036	U	0.0052	U	0.0036	U	0.0048	U
VOCs	Chloroform	67-66-3	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Chloromethane	74-87-3	mg/kg	0.0049	U	0.0047	U	0.0052	U	0.0049	U	0.0049	U	0.0048	U	0.0036	U	0.0052	U	0.0036	U	0.0048	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0032		0.0023	U	0.0026		0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.02	
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0049	U	0.0047	U	0.0052	UJ	0.0049	U	0.0049	U	0.0048	U	0.0036	U	0.0052	U	0.0036	U	0.0048	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0025	UJ	0.0023	UJ	0.0026	UJ	0.0025	UJ	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	m&p-Xylenes	NA	mg/kg	0.0025	U	0.0023	U	0.004		0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.02	U	0.019	U	0.021	U	0.02	U	0.019	U	0.019	U	0.014	U	0.021	U	0.015	U	0.019	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0049	U	0.0047	U	0.0052	U	0.0049	U	0.0049	U	0.0048	U	0.0036	U	0.0052	U	0.0036	U	0.0048	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Naphthalene	91-20-3	mg/kg	0.025	U	0.023	U	0.026	U	0.025	U	0.024	U	0.024	U	0.018	U	0.026	U	0.018	U	0.024	U
VOCs	o-Xylene	95-47-6	mg/kg	0.0025	U	0.0023	U	0.0011	J	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Styrene	100-42-5	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0015	J	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.02	U	0.019	U	0.021	U	0.02	U	0.019	U	0.019	U	0.014	U	0.021	U	0.015	U	0.019	U
VOCs	Toluene	108-88-3	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.012		0.0023	U	0.024		0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.001	J	0.0018	U	0.041	
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0025	U	0.0023	U	0.0026	U	0.0025	U	0.0024	U	0.0024	U	0.0018	U	0.0026	U	0.0018	U	0.0024	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0049	U	0.0047	U	0.0052	U	0.0049	U	0.0049	U	0.0048	U	0.0036	U	0.0052	U	0.0036	U	0.0048	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID		F-S1		F-S2		F-S3		F-S4		G-B1		G-S1		G-S2		G-S3		G-S4		PAH-B1	
				Field Sample ID		C022207-FS1		C022207-FS2		C022207-FS3		C022207-FS4		C022107-GB1		C022107-GS1		C022107-GS2		C022107-GS3		C022107-GS4		C022007-PAHB1	
				Sample Start Depth		4		5		4		3		11		4		4		4		4		11	
				Sample End Depth		11		11		11		12		12		5		5		5		5		12	
				Sample Date		2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/21/2007		2/21/2007		2/21/2007		2/21/2007		2/21/2007		2/20/2007	
				Sample Purpose		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																						
SVOCs	3-NITROANILINE	99-09-2	mg/kg																						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																						
SVOCs	4-NITROANILINE	100-01-6	mg/kg																						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																						
SVOCs	Acenaphthene	83-32-9	mg/kg																						
SVOCs	Acenaphthylene	208-96-8	mg/kg																						
SVOCs	Acetophenone	98-86-2	mg/kg																						
SVOCs	Aniline	62-53-3	mg/kg																						
SVOCs	Anthracene	120-12-7	mg/kg																						
SVOCs	Azobenzene	103-33-3	mg/kg																						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																						
SVOCs	CARBAZOLE	86-74-8	mg/kg																						
SVOCs	Chrysene	218-01-9	mg/kg																						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																						
SVOCs	Diethyl phthalate	84-66-2	mg/kg																						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																						
SVOCs	Fluoranthene	206-44-0	mg/kg																						
SVOCs	Fluorene	86-73-7	mg/kg																						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																						
SVOCs	HEXACHLOROBUTADIENE	87-68-3	mg/kg																						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																						
SVOCs	ISOPHORONE	78-59-1	mg/kg																						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																						
SVOCs	Naphthalene	91-20-3	mg/kg																						
SVOCs	NITROBENZENE	98-95-3	mg/kg																						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																						
SVOCs	Phenanthrene	85-01-8	mg/kg																						
SVOCs	PHENOL	108-95-2	mg/kg																						
SVOCs	Pyrene	129-00-0	mg/kg																						
PCBs	Aroclor 1016	12674-11-2	mg/kg																						
PCBs	Aroclor 1221	11104-28-2	mg/kg																						
PCBs	Aroclor 1232	11141-16-5	mg/kg																						
PCBs	Aroclor 1242	53469-21-9	mg/kg																						
PCBs	Aroclor 1248	12672-29-6	mg/kg																						
PCBs	Aroclor 1254	11097-69-1	mg/kg																						
PCBs	Aroclor 1260	11096-82-5	mg/kg																						
PCBs	PCB-1262	37324-23-5	mg/kg																						
PCBs	PCB-1268	11100-14-4	mg/kg																						
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Acenaphthene	83-32-9	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Anthracene	120-12-7	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.8	U	3.7	U	3.6	U	5.1		3.8	U	3.7	U	3.8	U	3.8	U	3.8	U	3.8	U	3.8	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	3.8	U	3.7	U	3.6	U	5.1		3.8	U	3.7	U	3.8	U	3.8	U	3.8	U	3.8	U	3.8	U
EPH	C19-C36 Aliphatics	NA	mg/kg	3.8	U	3.7	U	3.6	U	5		3.8	U	3.7	U	3.8	U	3.8	U	3.8	U	3.8	U	3.8	U
EPH	C9-C18 Aliphatics	NA	mg/kg	3.8	U	3.7	U	3.6	U	3.7	U	3.8	U	3.7	U	3.8	U	3.8	U	3.8	U	3.8	U	3.8	U
EPH	Chrysene	218-01-9	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Fluoranthene	206-44-0	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Fluorene	86-73-7	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Naphthalene	91-20-3	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Phenanthrene	85-01-8	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Pyrene	129-00-0	mg/kg	0.38	U	0.37	U	0.36	U	0.37	U	0.38	U	0.37	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
EPH	Total EPH	NA	mg/kg	3.8	U	3.7	U	3.6	U	10		3.8	U	3.7	U	3.8	U	3.8	U	3.8	U	3.8	U	3.8	U
VPH	Benzene	71-43-2	mg/kg																						
VPH	C5-C8 Aliphatics	NA	mg/kg																						
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg																						
VPH	C9-C10 Aromatics	NA	mg/kg																						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID		F-S1		F-S2		F-S3		F-S4		G-B1		G-S1		G-S2		G-S3		G-S4		PAH-B1	
				Field Sample ID		C022207-FS1		C022207-FS2		C022207-FS3		C022207-FS4		C022107-GB1		C022107-GS1		C022107-GS2		C022107-GS3		C022107-GS4		C022007-PAHB1	
				Sample Start Depth		4		5		4		3		11		4		4		4		4		11	
				Sample End Depth		11		11		11		12		12		5		5		5		5		12	
				Sample Date		2/22/2007		2/22/2007		2/22/2007		2/22/2007		2/21/2007		2/21/2007		2/21/2007		2/21/2007		2/21/2007		2/20/2007	
				Sample Purpose		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg																						
VPH	Ethylbenzene	100-41-4	mg/kg																						
VPH	m&p-Xylenes	NA	mg/kg																						
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg																						
VPH	Naphthalene	91-20-3	mg/kg																						
VPH	o-Xylene	95-47-6	mg/kg																						
VPH	Toluene	108-88-3	mg/kg																						
VPH	Total VPH	NA	mg/kg																						
Metals	Aluminum	7429-90-5	mg/kg	11,000		9,800		10,000		12,000		10,000		12,000		14,000		8,800		13,000		6,500			
Metals	Antimony	7440-36-0	mg/kg	5.4	J	5.1	J	14	J	7.7	J	4.1	J	3.1	UJ	4.6	J	1.3	J	1.3	J	3.2	UJ		
Metals	Arsenic	7440-38-2	mg/kg	26		25		29		37		31		35		32		34		36		70			
Metals	Barium	7440-39-3	mg/kg	41		39		44		50		42	B	45	B	66	B	39	B	50	B	40	B		
Metals	Beryllium	7440-41-7	mg/kg	1.5	U	1.4	U	1.3	U	1.3	U	1.2	U	1.2	U	1.4	U	1.3	U	1.4	U	1.3	U		
Metals	Cadmium	7440-43-9	mg/kg	0.34	J	0.24	J	0.27	J	0.28	J	0.38	J	0.34	J	0.41	J	0.3	J	0.41	J	0.22	J		
Metals	Calcium	7440-70-2	mg/kg	1,400	B	1,300	B	1,300	B	1,400	B	2,100	B	2,100	B	2,500	B	2,000	B	2,200	B	1,700	B		
Metals	Chromium	7440-47-3	mg/kg	350	J	360	J	1200	J	590	J	270		74		380		62		100		37			
Metals	Cobalt	7440-48-4	mg/kg	7.6		7.8		7.6		9.9		8.8		9.4		10		7.3		9.6		5			
Metals	Copper	7440-50-8	mg/kg	51	J	70	J	140	J	87	J	200	B	37	B	140	B	50	B	48	B	110	B		
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	220	J	0.32	J	70	J	0.55	J	0.47	J	0.29	J	0.28	J	0.26	J	9.6	J	0.29	J		
Metals	Iron	7439-89-6	mg/kg	16,000		14,000		17,000		17,000		17,000		18,000		21,000		15,000		19,000		12,000			
Metals	Lead	7439-92-1	mg/kg	63		5.6		150		5.4		5		6.7		7.4		4.8		7.9		3.4			
Metals	Magnesium	7439-95-4	mg/kg	4,500		4,000		4,600		5,400		5,300		6,100		7,400		4,400		6,400		3,300			
Metals	Manganese	7439-96-5	mg/kg	250		210		240		270		250		270		260		240		230		170			
Metals	Mercury	7439-97-6	mg/kg	0.071	U	0.098	U	0.072	U	0.094	U	0.095	U	0.094	U	0.082	U	0.11	U	0.088	U	0.09	U		
Metals	Nickel	7440-02-0	mg/kg	29		29		30		38		34		33		41		32		39		22			
Metals	Potassium	7440-09-7	mg/kg	1,700	J	1,800	J	1,700	J	1,900	J	2,200	J	2,000	J	2,900	J	1,900	J	2,200	J	1,500	J		
Metals	Selenium	7782-49-2	mg/kg	3.7	U	3.4	U	3.2	U	3.4	U	3.1	U	3.1	U	3.6	U	3.3	U	3.4	U	3.2	U		
Metals	Silver	7440-22-4	mg/kg	6.9		7.2		26		12		4.4		0.76	J	6.7		3.3	U	0.99	J	3.2	U		
Metals	Sodium	7440-23-5	mg/kg	740	U	690	U	26	U	670	U	620	U	620	U	710	U	670	U	680	U	640	U		
Metals	Thallium	7440-28-0	mg/kg	7.4	U	6.9	U	6.3	U	6.7	U	6.2	U	6.2	U	7.1	U	6.7	U	6.8	U	6.4	U		
Metals	Vanadium	7440-62-2	mg/kg	19		16		18		20		20		24		30		18		25		13			
Metals	Zinc	7440-66-6	mg/kg	28		24		26		28		32		31		36		26		35		23			
Cyanide	Cyanide, Reactive	NA	mg/kg																						
Other	Sulfide, Reactive	NA	mg/kg																						
Other	TOTAL ORGANIC CARBON	NA	mg/kg																						
TIC	.alpha.-Pinene	NA	mg/kg																						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																						
TIC	1-4-Methanonaphthalene	NA	mg/kg																						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																						
TIC	1-Methyl-Pyrene	NA	mg/kg																						
TIC	1S-.alpha.-Pinene	NA	mg/kg																						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																						
TIC	2-Methylanthracene	613-12-7	mg/kg																						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																						
TIC	Cyclic octaatomic sulfur	NA	mg/kg																						
TIC	Cyclopentane, methyl-	NA	mg/kg																						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																						
TIC	Hexanal	0066-25-1	mg/kg																						
TIC	Pentane, 2-methyl-	NA	mg/kg																						
TIC	Pentane, 3-methyl-	NA	mg/kg																						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	PAH-S1		PAH-S2		PAH-S3		PAH-S4		PRA1-B1		PRA1-B2		PRA1-B3		PRA1-S1		PRA1-S2		PRA1-S3	
			Field Sample ID	C022007-PAHS1		C022007-PAHS2		C022007-PAHS3		C022007-PAHS4		C022307-PRA1B1		C022307-PRA1B2		C022307-PRA1B3		C022307-PRA1S1		C022307-PRA1S2		C022307-PRA1S3	
			Sample Start Depth	3		3		3		3		5		5		5		3		3		2	
			Sample End Depth	12		12		12		12		6		6		6		5		5		5	
			Sample Date	2/20/2007		2/20/2007		2/20/2007		2/20/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	J	0.65		0.13	U	0.0021	U	0.0029	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	J	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.12	J	0.42		0.13	U	0.0021	U	0.0029	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.23	U	0.24	U	0.23	U	0.24	U	13	U	13	U	26	U	13	U	0.21	U	0.29	U
VOCs	1-Chlorohexane	544-10-5	mg/kg																				
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.018	U	0.019	U	0.018	U	0.019	U	1	U	1	U	2.1	U	1.1	U	0.016	U	0.023	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.018	U	0.019	U	0.018	U	0.019	U	1	U	1	U	2.1	U	1.1	U	0.016	U	0.023	U
VOCs	Acetone	67-64-1	mg/kg	0.23	UJ	0.24	UJ	0.23	UJ	0.24	UJ	13	U	13	U	26	U	13	UJ	0.21	UJ	0.29	UJ
VOCs	Benzene	71-43-2	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Bromoform	75-25-2	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Bromomethane	74-83-9	mg/kg	0.0045	U	0.0049	U	0.0046	U	0.0048	U	0.25	U	0.26	U	0.51	U	0.27	U	0.0041	U	0.0057	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Chloroethane	75-00-3	mg/kg	0.0045	U	0.0049	U	0.0046	U	0.0048	U	0.25	U	0.26	U	0.51	U	0.27	U	0.0041	U	0.0057	U
VOCs	Chloroform	67-66-3	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Chloromethane	74-87-3	mg/kg	0.0045	U	0.0049	U	0.0046	U	0.0048	U	0.25	U	0.26	U	0.51	U	0.27	U	0.0041	U	0.0057	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.3		0.13	U	0.0021	U	0.0029	U
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0045	U	0.0049	U	0.0046	U	0.0048	U	0.25	U	0.26	UJ	0.51	UJ	0.27	U	0.0041	U	0.0057	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.15		70		470		0.078	J	0.0021	U	0.0029	U
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	UJ	0.0029	UJ
VOCs	Hexanal	0066-25-1	mg/kg																				
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.94	J	4.7		0.13	U	0.0021	U	0.0029	U
VOCs	m&p-Xylenes	NA	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.68		310		1,800		0.29		0.0018	J	0.0012	J
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.018	U	0.019	U	0.018	U	0.019	U	1	U	1	U	2.1	U	1.1	U	0.016	U	0.023	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0045	U	0.0049	U	0.0046	U	0.0048	U	0.25	U	0.26	U	0.51	U	0.27	U	0.0041	U	0.0057	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.12	J	0.13	U	0.0021	U	0.0029	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.39	J	1.5		0.13	U	0.0021	U	0.0029	U
VOCs	Naphthalene	91-20-3	mg/kg	0.023	U	0.024	U	0.023	U	0.024	U	1.3	U	1.3	U	1.9	J	1.3	U	0.021	U	0.029	U
VOCs	o-Xylene	95-47-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.14		92		550		0.12	J	0.0021	U	0.0029	U
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Styrene	100-42-5	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.22	J	0.058	J	0.0021	U	0.0042	
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.018	U	0.019	U	0.018	U	0.019	U	1	U	1	U	2.1	U	1.1	U	0.016	U	0.023	U
VOCs	Toluene	108-88-3	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	5	J	81		0.13	U	0.0021	U	0.0029	U
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.069	J	4.9		0.23		0.0032		0.041	
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0023	U	0.0024	U	0.0023	U	0.0024	U	0.13	U	0.13	U	0.26	U	0.13	U	0.0021	U	0.0029	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0045	U	0.0049	U	0.0046	U	0.0048	U	0.25	U	0.26	U	0.51	U	0.27	U	0.0041	U	0.0057	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg																				
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg																				
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg																				
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg																				
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg																				
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg																				
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg																				
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg																				
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg																				
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg																				
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg																				
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg																				
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg																				
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg																				
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg																				
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg																				

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location ID	PAH-S1		PAH-S2		PAH-S3		PAH-S4		PRA1-B1		PRA1-B2		PRA1-B3		PRA1-S1		PRA1-S2		PRA1-S3	
			Field Sample ID	C022007-PAHS1		C022007-PAHS2		C022007-PAHS3		C022007-PAHS4		C022307-PRA1B1		C022307-PRA1B2		C022307-PRA1B3		C022307-PRA1S1		C022307-PRA1S2		C022307-PRA1S3	
			Sample Start Depth	3		3		3		3		5		5		5		3		3		2	
			Sample End Depth	12		12		12		12		6		6		6		5		5		5	
			Sample Date	2/20/2007		2/20/2007		2/20/2007		2/20/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007	
			Sample Purpose	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg																				
SVOCs	2-NITROPHENOL	88-75-5	mg/kg																				
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg																				
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg																				
SVOCs	3-NITROANILINE	99-09-2	mg/kg																				
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg																				
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg																				
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg																				
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg																				
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg																				
SVOCs	4-NITROANILINE	100-01-6	mg/kg																				
SVOCs	4-NITROPHENOL	100-02-7	mg/kg																				
SVOCs	Acenaphthene	83-32-9	mg/kg																				
SVOCs	Acenaphthylene	208-96-8	mg/kg																				
SVOCs	Acetophenone	98-86-2	mg/kg																				
SVOCs	Aniline	62-53-3	mg/kg																				
SVOCs	Anthracene	120-12-7	mg/kg																				
SVOCs	Azobenzene	103-33-3	mg/kg																				
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg																				
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg																				
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg																				
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg																				
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg																				
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg																				
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg																				
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg																				
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg																				
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg																				
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg																				
SVOCs	CARBAZOLE	86-74-8	mg/kg																				
SVOCs	Chrysene	218-01-9	mg/kg																				
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg																				
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg																				
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg																				
SVOCs	DIBENZOFURAN	132-64-9	mg/kg																				
SVOCs	Diethyl phthalate	84-66-2	mg/kg																				
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg																				
SVOCs	Fluoranthene	206-44-0	mg/kg																				
SVOCs	Fluorene	86-73-7	mg/kg																				
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg																				
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg																				
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg																				
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg																				
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg																				
SVOCs	ISOPHORONE	78-59-1	mg/kg																				
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg																				
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg																				
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg																				
SVOCs	Naphthalene	91-20-3	mg/kg																				
SVOCs	NITROBENZENE	98-95-3	mg/kg																				
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg																				
SVOCs	Phenanthrene	85-01-8	mg/kg																				
SVOCs	PHENOL	108-95-2	mg/kg																				
SVOCs	Pyrene	129-00-0	mg/kg																				
PCBs	Aroclor 1016	12674-11-2	mg/kg																				
PCBs	Aroclor 1221	11104-28-2	mg/kg																				
PCBs	Aroclor 1232	11141-16-5	mg/kg																				
PCBs	Aroclor 1242	53469-21-9	mg/kg																				
PCBs	Aroclor 1248	12672-29-6	mg/kg																				
PCBs	Aroclor 1254	11097-69-1	mg/kg																				
PCBs	Aroclor 1260	11096-82-5	mg/kg																				
PCBs	PCB-1262	37324-23-5	mg/kg																				
PCBs	PCB-1268	11100-14-4	mg/kg																				
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	0.37	U	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Acenaphthene	83-32-9	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	0.68	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	0.37	U	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Anthracene	120-12-7	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	1.3	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.39		3.5	J	0.38	U	0.37	U	0.61		0.4	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	2.3	J	0.38	U	0.37	U	0.41		0.4	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	1.5	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	1.2	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	2.2	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	C11-C22 Aromatics	NA	mg/kg	3.7	U	3.6	U	3.7	U	3.6	U	14		110	J	4.9		5		15		5.6	
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	3.7	U	3.6	U	3.7	U	3.6	U	16		140	J	4.9		5		19		5.6	
EPH	C19-C36 Aliphatics	NA	mg/kg	3.7	U	3.6	U	3.7	U	3.6	U	5.6		11		3.8	U	3.7	U	5.1		4	U
EPH	C9-C18 Aliphatics	NA	mg/kg	3.7	U	3.6	U	3.7	U	3.6	U	4		150	J	3.8	U	3.7	U	3.9	U	4	U
EPH	Chrysene	218-01-9	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.41		3.7	J	0.38	U	0.37	U	0.48		0.4	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	0.79	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Fluoranthene	206-44-0	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.65		5.6	J	0.38	U	0.37	U	1.3		0.4	U
EPH	Fluorene	86-73-7	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	0.59	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	0.98	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Naphthalene	91-20-3	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.37	U	0.47	J	0.38	U	0.37	U	0.39	U	0.4	U
EPH	Phenanthrene	85-01-8	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.39		4.2	J	0.38	U	0.37	U	0.98		0.4	U
EPH	Pyrene	129-00-0	mg/kg	0.37	U	0.36	U	0.37	U	0.36	U	0.56		5.1	J	0.38	U	0.37	U	1.1		0.4	U
EPH	Total EPH	NA	mg/kg	3.7	U	3.6	U	3.7	U	3.6	U	23		270	J	4.9		5		20		5.6	
VPH	Benzene	71-43-2	mg/kg									0.27	U	0.19	U	2.8	U	0.28	U	0.32	U	0.31	U
VPH	C5-C8 Aliphatics	NA	mg/kg									2.7	U	1.9	U	28	U	2.8	U	3.2	U	3.1	U
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg									2.7	U	2.3	J	160		2.8	U	3.2	U	3.1	U
VPH	C9-C10 Aromatics	NA	mg/kg									2.7	U	32	J	740		2.8	U	3.2	U	3.1	U

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID		PAH-S1		PAH-S2		PAH-S3		PAH-S4		PRA1-B1		PRA1-B2		PRA1-B3		PRA1-S1		PRA1-S2		PRA1-S3	
				Field Sample ID		C022007-PAHS1		C022007-PAHS2		C022007-PAHS3		C022007-PAHS4		C022307-PRA1B1		C022307-PRA1B2		C022307-PRA1B3		C022307-PRA1S1		C022307-PRA1S2		C022307-PRA1S3	
				Sample Start Depth		3		3		3		3		5		5		5		3		3		2	
				Sample End Depth		12		12		12		12		6		6		6		5		5		5	
				Sample Date		2/20/2007		2/20/2007		2/20/2007		2/20/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007		2/23/2007	
				Sample Purpose		REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg											2.7	U	47	J	1,600		2.8	U	3.2	U	3.1	U
VPH	Ethylbenzene	100-41-4	mg/kg											0.27	U	29	J	680		0.28	U	0.32	U	0.31	U
VPH	m&p-Xylenes	NA	mg/kg											0.77		140	J	3,100		0.56	U	0.64	U	0.61	U
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg											0.053	U	0.037	U	1	U	0.056	U	0.064	U	0.061	U
VPH	Naphthalene	91-20-3	mg/kg											0.53	U	0.37	U	5.5	U	0.56	U	0.64	U	0.61	U
VPH	o-Xylene	95-47-6	mg/kg											0.27	U	39	J	750		0.28	U	0.32	U	0.31	U
VPH	Toluene	108-88-3	mg/kg											0.27	U	1.4	J	110		0.28	U	0.32	U	0.31	U
VPH	Total VPH	NA	mg/kg											2.7	U	79	J	2,300		2.8	U	3.2	U	3.1	U
Metals	Aluminum	7429-90-5	mg/kg	10,000		9,900		14,000		13,000				10,000		12,000		13,000		14,000		18,000		27,000	
Metals	Antimony	7440-36-0	mg/kg	8.1	J	3.3	UJ	3.3	UJ	3.4	UJ			2.5	J	2.5	J	3.1	J	3.6	J	1.9	J	20	J
Metals	Arsenic	7440-38-2	mg/kg	36		79		62		50				28		23		34		37		43		66	
Metals	Barium	7440-39-3	mg/kg	47	B	45	B	51	B	49	B			39		44		44		48		45		62	
Metals	Beryllium	7440-41-7	mg/kg	1.3	U	1.3	U	1.3	U	1.4	U			1.4	U	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U
Metals	Cadmium	7440-43-9	mg/kg	0.31	J	0.28	J	0.37	J	0.33	J			0.61	J	0.33	J	0.33	J	0.37	J	0.36	J	0.48	J
Metals	Calcium	7440-70-2	mg/kg	1,800	B	1,800	B	2,100	B	2,100	B			1,800	B	1,700	B	1,800	B	1,700	B	1,700	B	3,000	B
Metals	Chromium	7440-47-3	mg/kg	40		63		100		56				100	J	100	J	180	J	260	J	140	J	1500	J
Metals	Cobalt	7440-48-4	mg/kg	7.7		7.1		11		10				9.6		9.3		9.9		10		9.9		16	
Metals	Copper	7440-50-8	mg/kg	15	B	38	B	24	B	23	B			170	J	53	J	45	J	59	J	16	J	230	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	0.24	J	7	J	7	J	2.5	J			0.38	UJ	0.35	UJ	4.4	J	6.3	J	21	J	22	J
Metals	Iron	7439-89-6	mg/kg	16,000		16,000		21,000		19,000				16,000		18,000		19,000		18,000		21,000		30,000	
Metals	Lead	7439-92-1	mg/kg	4.8		17		22		19				15		11		9.4		15		8.9		15	
Metals	Magnesium	7439-95-4	mg/kg	5,600		5,100		7,000		6,700				5,500		6,000		5,700		6,200		6,400		10,000	
Metals	Manganese	7439-96-5	mg/kg	110		140		250		250				120		170		200		200		220		210	
Metals	Mercury	7439-97-6	mg/kg	0.082	U	0.094	U	0.047	J	0.1	U			0.076	U	0.083	U	0.035	J	0.063	J	0.044	J	0.052	J
Metals	Nickel	7440-02-0	mg/kg	27		29		37		39				44		34		36		36		37		48	
Metals	Potassium	7440-09-7	mg/kg	3,300	J	2,600	J	2,900	J	3,000	J			2,300	J	2,500	J	2,100	J	2,300	J	1,500	J	3,200	J
Metals	Selenium	7782-49-2	mg/kg	3.3	U	3.3	U	3.3	U	3.4	U			3.5	U	3.3	U	3.3	U	3.3	U	3.3	U	3.3	U
Metals	Silver	7440-22-4	mg/kg	3.3	U	3.3	U	0.88	J	3.4	U			2.3	J	1.4	J	3	J	4.6		2.2	J	31	
Metals	Sodium	7440-23-5	mg/kg	650	U	670	U	670	U	680	U			33	U	75	U	230	J	92	U	54	U	110	U
Metals	Thallium	7440-28-0	mg/kg	6.5	U	6.7	U	6.7	U	6.8	U			6.9	U	6.5	U	6.6	U	6.6	U	6.7	U	6.7	U
Metals	Vanadium	7440-62-2	mg/kg	22		21		30		28				23		26		26		28		32		52	
Metals	Zinc	7440-66-6	mg/kg	34		37		40		38				82		37		36		39		35		53	
Cyanide	Cyanide, Reactive	NA	mg/kg																						
Other	Sulfide, Reactive	NA	mg/kg																						
Other	TOTAL ORGANIC CARBON	NA	mg/kg																						
TIC	.alpha.-Pinene	NA	mg/kg																						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg																						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg																						
TIC	1-4-Methanonaphthalene	NA	mg/kg																						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg																						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg																						
TIC	1-Methyl-Pyrene	NA	mg/kg																						
TIC	1S-.alpha.-Pinene	NA	mg/kg																						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg																						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg																						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg																						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg																						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg																						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg																						
TIC	2-Methylanthracene	613-12-7	mg/kg																						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg																						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg																						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg																						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg																						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg																						
TIC	Cyclic octaatomic sulfur	NA	mg/kg																						
TIC	Cyclopentane, methyl-	NA	mg/kg																						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg																						
TIC	Hexanal	0066-25-1	mg/kg																						
TIC	Pentane, 2-methyl-	NA	mg/kg																						
TIC	Pentane, 3-methyl-	NA	mg/kg																						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg																						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID	PRA1-S4		PRA1-S5		PRA1-S6	
				Field Sample ID	C022307-PRA1S4		C022307-PRA1S5		C022307-PRA1S6	
				Sample Start Depth	2		2		2	
				Sample End Depth	5		5		5	
				Sample Date	2/23/2007		2/23/2007		2/23/2007	
				Sample Purpose	REG		REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2-Dibromo-3-Chloropropane	96-12-8	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2-Dibromoethane (EDB)	106-93-4	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	1,4-Dioxane	123-91-1	mg/kg	0.27	U	20	U	0.23	U
VOCs	1-Chlorohexane	544-10-5	mg/kg						
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	2-Chlorotoluene	95-49-8	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	2-Hexanone	591-78-6	mg/kg	0.021	U	1.6	U	0.019	U
VOCs	4-Chlorotoluene	106-43-4	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	4-Isopropyltoluene	99-87-6	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	0.021	U	1.6	U	0.019	U
VOCs	Acetone	67-64-1	mg/kg	0.27	UJ	20	U	0.23	UJ
VOCs	Benzene	71-43-2	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Bromobenzene	108-86-1	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Bromoform	75-25-2	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Bromomethane	74-83-9	mg/kg	0.0053	U	0.4	U	0.0046	U
VOCs	Carbon disulfide	75-15-0	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Carbon tetrachloride	56-23-5	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Chlorobenzene	108-90-7	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Chlorobromomethane	74-97-5	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Chlorodibromomethane	124-48-1	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Chloroethane	75-00-3	mg/kg	0.0053	U	0.4	U	0.0046	U
VOCs	Chloroform	67-66-3	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Chloromethane	74-87-3	mg/kg	0.0053	U	0.4	U	0.0046	U
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	0.0011	J	0.2	U	0.0032	
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Dibromomethane	74-95-3	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Dichlorobromomethane	75-27-4	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	0.0053	U	0.4	UJ	0.0046	U
VOCs	DIETHYL ETHER	60-29-7	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Diisopropyl ether (DIPE)	108-20-3	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Ethylbenzene	100-41-4	mg/kg	0.0061		2.4		0.076	
VOCs	Ethylene tert-butyl ether (ETBE)	637-92-3	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Hexachlorobutadiene	87-68-3	mg/kg	0.0027	UJ	0.2	U	0.0023	UJ
VOCs	Hexanal	0066-25-1	mg/kg						
VOCs	Isopropylbenzene	98-82-8	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	m&p-Xylenes	NA	mg/kg	0.026		9.3		0.3	
VOCs	Methyl Ethyl Ketone	78-93-3	mg/kg	0.021	U	1.6	U	0.019	U
VOCs	Methyl tert-butyl ether	1634-04-4	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Methylene Chloride	75-09-2	mg/kg	0.0053	U	0.4	U	0.0046	U
VOCs	n-Butylbenzene	104-51-8	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	N-Propylbenzene	103-65-1	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Naphthalene	91-20-3	mg/kg	0.027	U	2	U	0.023	U
VOCs	o-Xylene	95-47-6	mg/kg	0.0075		0.2	U	0.054	
VOCs	sec-Butylbenzene	135-98-8	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Styrene	100-42-5	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Tert-amyl methyl ether	994-05-8	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	tert-Butylbenzene	98-06-6	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Tetrahydrofuran	109-99-9	mg/kg	0.021	U	1.6	U	0.019	U
VOCs	Toluene	108-88-3	mg/kg	0.0033		0.2	U	0.0082	
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Trichloroethene	79-01-6	mg/kg	0.0027	U	0.2	U	0.0011	J
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	0.0027	U	0.2	U	0.0023	U
VOCs	Vinyl chloride	75-01-4	mg/kg	0.0053	U	0.4	U	0.0046	U
VOCs	Xylenes (o, m & p)	1330-20-7	mg/kg						
SVOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg						
SVOCs	1,2-Dichlorobenzene	95-50-1	mg/kg						
SVOCs	1,3-Dichlorobenzene	541-73-1	mg/kg						
SVOCs	1,4-Dichlorobenzene	106-46-7	mg/kg						
SVOCs	2,4,5-TRICHLOROPHENOL	95-95-4	mg/kg						
SVOCs	2,4,6-TRICHLOROPHENOL	88-06-2	mg/kg						
SVOCs	2,4-DICHLOROPHENOL	120-83-2	mg/kg						
SVOCs	2,4-DIMETHYLPHENOL	105-67-9	mg/kg						
SVOCs	2,4-DINITROPHENOL	51-28-5	mg/kg						
SVOCs	2,4-DINITROTOLUENE	121-14-2	mg/kg						
SVOCs	2,6-DINITROTOLUENE	606-20-2	mg/kg						
SVOCs	2-CHLORONAPHTHALENE	91-58-7	mg/kg						
SVOCs	2-CHLOROPHENOL	95-57-8	mg/kg						
SVOCs	2-Methylnaphthalene	91-57-6	mg/kg						
SVOCs	2-Methylphenol (o-cresol)	95-48-7	mg/kg						

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID		PRA1-S5		PRA1-S6	
				Field Sample ID	C022307-PRA1S4	C022307-PRA1S5		C022307-PRA1S6	
				Sample Start Depth	2	2		2	
				Sample End Depth	5	5		5	
				Sample Date	2/23/2007	2/23/2007		2/23/2007	
				Sample Purpose	REG	REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q
SVOCs	2-NITROANILINE	88-74-4	mg/kg						
SVOCs	2-NITROPHENOL	88-75-5	mg/kg						
SVOCs	3&4 Methylphenol (m+p cresol)	106-44-5	mg/kg						
SVOCs	3,3-Dichlorobenzidine	91-94-1	mg/kg						
SVOCs	3-NITROANILINE	99-09-2	mg/kg						
SVOCs	4,6-DINITRO-2-METHYLPHENOL	534-52-1	mg/kg						
SVOCs	4-Bromophenyl phenyl ether	101-55-3	mg/kg						
SVOCs	4-CHLORO-3-METHYLPHENOL	59-50-7	mg/kg						
SVOCs	4-CHLOROANILINE	106-47-8	mg/kg						
SVOCs	4-CHLOROPHENYL-PHENYLETHER	7005-72-3	mg/kg						
SVOCs	4-NITROANILINE	100-01-6	mg/kg						
SVOCs	4-NITROPHENOL	100-02-7	mg/kg						
SVOCs	Acenaphthene	83-32-9	mg/kg						
SVOCs	Acenaphthylene	208-96-8	mg/kg						
SVOCs	Acetophenone	98-86-2	mg/kg						
SVOCs	Aniline	62-53-3	mg/kg						
SVOCs	Anthracene	120-12-7	mg/kg						
SVOCs	Azobenzene	103-33-3	mg/kg						
SVOCs	Benzo[a]anthracene	56-55-3	mg/kg						
SVOCs	Benzo[a]pyrene	50-32-8	mg/kg						
SVOCs	Benzo[b]fluoranthene	205-99-2	mg/kg						
SVOCs	Benzo[g,h,i]perylene	191-24-2	mg/kg						
SVOCs	Benzo[k]fluoranthene	207-08-9	mg/kg						
SVOCs	BENZYL ALCOHOL	100-51-6	mg/kg						
SVOCs	Bis(2-chloroethoxy)methane	111-91-1	mg/kg						
SVOCs	BIS(2-CHLOROETHYL)ETHER	111-44-4	mg/kg						
SVOCs	Bis(2-chloroisopropyl)ether	108-60-1	mg/kg						
SVOCs	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	mg/kg						
SVOCs	BUTYL BENZYL PHTHALATE	85-68-7	mg/kg						
SVOCs	CARBAZOLE	86-74-8	mg/kg						
SVOCs	Chrysene	218-01-9	mg/kg						
SVOCs	Di-n-butyl phthalate	84-74-2	mg/kg						
SVOCs	DI-N-OCTYL PHTHALATE	117-84-0	mg/kg						
SVOCs	Dibenz(a,h)anthracene	53-70-3	mg/kg						
SVOCs	DIBENZOFURAN	132-64-9	mg/kg						
SVOCs	Diethyl phthalate	84-66-2	mg/kg						
SVOCs	DIMETHYL PHTHALATE	131-11-3	mg/kg						
SVOCs	Fluoranthene	206-44-0	mg/kg						
SVOCs	Fluorene	86-73-7	mg/kg						
SVOCs	HEXACHLOROBENZENE	118-74-1	mg/kg						
SVOCs	Hexachlorobutadiene	87-68-3	mg/kg						
SVOCs	HEXACHLOROCYCLOPENTADIENE	77-47-4	mg/kg						
SVOCs	HEXACHLOROETHANE	67-72-1	mg/kg						
SVOCs	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg						
SVOCs	ISOPHORONE	78-59-1	mg/kg						
SVOCs	N-NITROSO-DI-N-PROPYLAMINE	621-64-7	mg/kg						
SVOCs	N-NITROSODIMETHYLAMINE	62-75-9	mg/kg						
SVOCs	N-NITROSODIPHENYLAMINE	86-30-6	mg/kg						
SVOCs	Naphthalene	91-20-3	mg/kg						
SVOCs	NITROBENZENE	98-95-3	mg/kg						
SVOCs	PENTACHLOROPHENOL	87-86-5	mg/kg						
SVOCs	Phenanthrene	85-01-8	mg/kg						
SVOCs	PHENOL	108-95-2	mg/kg						
SVOCs	Pyrene	129-00-0	mg/kg						
PCBs	Aroclor 1016	12674-11-2	mg/kg						
PCBs	Aroclor 1221	11104-28-2	mg/kg						
PCBs	Aroclor 1232	11141-16-5	mg/kg						
PCBs	Aroclor 1242	53469-21-9	mg/kg						
PCBs	Aroclor 1248	12672-29-6	mg/kg						
PCBs	Aroclor 1254	11097-69-1	mg/kg						
PCBs	Aroclor 1260	11096-82-5	mg/kg						
PCBs	PCB-1262	37324-23-5	mg/kg						
PCBs	PCB-1268	11100-14-4	mg/kg						
EPH	2-Methylnaphthalene	91-57-6	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Acenaphthene	83-32-9	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Acenaphthylene	208-96-8	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Anthracene	120-12-7	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Benzo[a]anthracene	56-55-3	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Benzo[a]pyrene	50-32-8	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Benzo[b]fluoranthene	205-99-2	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Benzo[g,h,i]perylene	191-24-2	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Benzo[k]fluoranthene	207-08-9	mg/kg	0.37	U	0.38	U	0.36	U
EPH	C11-C22 Aromatics	NA	mg/kg	8.1		3.8	U	3.6	U
EPH	C11-C22 Aromatics (unadjusted)	NA	mg/kg	8.1		3.8	U	3.6	U
EPH	C19-C36 Aliphatics	NA	mg/kg	31		3.8	U	3.6	U
EPH	C9-C18 Aliphatics	NA	mg/kg	3.7	U	3.8	U	3.6	U
EPH	Chrysene	218-01-9	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Dibenz(a,h)anthracene	53-70-3	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Fluoranthene	206-44-0	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Fluorene	86-73-7	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Naphthalene	91-20-3	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Phenanthrene	85-01-8	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Pyrene	129-00-0	mg/kg	0.37	U	0.38	U	0.36	U
EPH	Total EPH	NA	mg/kg	39		3.8	U	3.6	U
VPH	Benzene	71-43-2	mg/kg	0.26	U	0.3	U	0.26	U
VPH	C5-C8 Aliphatics	NA	mg/kg	2.6	U	3	U	2.6	U
VPH	C5-C8 Aliphatics (unadjusted)	NA	mg/kg	2.6	U	3	U	2.6	U
VPH	C9-C10 Aromatics	NA	mg/kg	2.6	U	3	U	2.6	U

Table A-1
Soil Analytical Data
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location ID		PRA1-S5		PRA1-S6	
				Field Sample ID	C022307-PRA1S4	C022307-PRA1S5		C022307-PRA1S6	
				Sample Start Depth	2	2		2	
				Sample End Depth	5	5		5	
				Sample Date	2/23/2007	2/23/2007		2/23/2007	
				Sample Purpose	REG	REG		REG	
Chemical	Chemical	CASRN	Units	Result	Q	Result	Q	Result	Q
VPH	C9-C12 Aliphatics	NA	mg/kg	2.6	U	3	U	2.6	U
VPH	Ethylbenzene	100-41-4	mg/kg	0.26	U	2.6		0.26	U
VPH	m&p-Xylenes	NA	mg/kg	0.52	U	9.5		0.51	U
VPH	Methyl tert-butyl ether	1634-04-4	mg/kg	0.052	U	0.059	U	0.051	U
VPH	Naphthalene	91-20-3	mg/kg	0.52	U	0.59	U	0.51	U
VPH	o-Xylene	95-47-6	mg/kg	0.26	U	0.3	U	0.26	U
VPH	Toluene	108-88-3	mg/kg	0.26	U	0.3	U	0.26	U
VPH	Total VPH	NA	mg/kg	2.6	U	3	U	2.6	U
Metals	Aluminum	7429-90-5	mg/kg	9,300		20,000		15,000	
Metals	Antimony	7440-36-0	mg/kg	1.2	J	2.2	J	11	J
Metals	Arsenic	7440-38-2	mg/kg	22		47		43	
Metals	Barium	7440-39-3	mg/kg	37		35		45	
Metals	Beryllium	7440-41-7	mg/kg	1.2	U	1.3	U	1.3	U
Metals	Cadmium	7440-43-9	mg/kg	0.26	J	0.41	J	0.37	J
Metals	Calcium	7440-70-2	mg/kg	1,600	B	2,000	B	1,700	B
Metals	Chromium	7440-47-3	mg/kg	85	J	64	J	130	J
Metals	Cobalt	7440-48-4	mg/kg	8.2		14		11	
Metals	Copper	7440-50-8	mg/kg	65	J	18	J	65	J
Metals	HEXAVALENT CHROMIUM	18540-29-9	mg/kg	2.6	J	0.94	UJ	7.4	J
Metals	Iron	7439-89-6	mg/kg	14,000		25,000		20,000	
Metals	Lead	7439-92-1	mg/kg	18		9.4		14	
Metals	Magnesium	7439-95-4	mg/kg	4,600		8,500		6,900	
Metals	Manganese	7439-96-5	mg/kg	150		330		290	
Metals	Mercury	7439-97-6	mg/kg	0.097	U	0.033	J	0.031	J
Metals	Nickel	7440-02-0	mg/kg	29		46		35	
Metals	Potassium	7440-09-7	mg/kg	1,900	J	2,300	J	2,500	J
Metals	Selenium	7782-49-2	mg/kg	3.1	U	3.2	U	3.2	U
Metals	Silver	7440-22-4	mg/kg	1.8	J	3.2	U	1.8	J
Metals	Sodium	7440-23-5	mg/kg	36	U	140	U	110	U
Metals	Thallium	7440-28-0	mg/kg	6.1	U	6.4	U	6.4	U
Metals	Vanadium	7440-62-2	mg/kg	19		38		32	
Metals	Zinc	7440-66-6	mg/kg	32		40		34	
Cyanide	Cyanide, Reactive	NA	mg/kg						
Other	Sulfide, Reactive	NA	mg/kg						
Other	TOTAL ORGANIC CARBON	NA	mg/kg						
TIC	.alpha.-Pinene	NA	mg/kg						
TIC	1,3-Butadiene, pentachloro-	NA	mg/kg						
TIC	1-3-dimethyl-Naphthalene	575-41-7	mg/kg						
TIC	1-4-Methanonaphthalene	NA	mg/kg						
TIC	1-Ethyl-Naphthalene	1127-76-0	mg/kg						
TIC	1-Methyl-Phenanthrene	832-69-9	mg/kg						
TIC	1-Methyl-Pyrene	NA	mg/kg						
TIC	1S-.alpha.-Pinene	NA	mg/kg						
TIC	2,3-Dimethyl-Naphthalene	581-40-8	mg/kg						
TIC	2,4,4-Trimethyl-1-pentene	NA	mg/kg						
TIC	2,6-Dimethyl-Naphthalene	581-42-0	mg/kg						
TIC	2,7-dimethyl-Naphthalene	582-16-1	mg/kg						
TIC	2-Ethyl-Naphthalene	939-27-5	mg/kg						
TIC	2-Methyl-Fluoranthene	33543-31-6	mg/kg						
TIC	2-Methylanthracene	613-12-7	mg/kg						
TIC	Benzene, (chloromethyl)(1-methylethyl)-	NA	mg/kg						
TIC	Benzene, 1,2-dimethyl-	NA	mg/kg						
TIC	Benzene, 1,3-dimethyl-	NA	mg/kg						
TIC	Benzene, 1-ethyl-2-methyl-	NA	mg/kg						
TIC	Benzene, 2-chloro-1,3,5-trimethyl-	NA	mg/kg						
TIC	Benzene, 2-chloro-1,3-dimethyl-	NA	mg/kg						
TIC	Benzene, 4-(chloromethyl)-1,2-dimethyl-	NA	mg/kg						
TIC	Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	NA	mg/kg						
TIC	Cyclic octaatomic sulfur	NA	mg/kg						
TIC	Cyclopentane, methyl-	NA	mg/kg						
TIC	Disulfide, dimethyl	0624-92-0	mg/kg						
TIC	Hexanal	0066-25-1	mg/kg						
TIC	Pentane, 2-methyl-	NA	mg/kg						
TIC	Pentane, 3-methyl-	NA	mg/kg						
TIC	Phthalic acid,butyl ester	88-99-3	mg/kg						

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram
VOCs: volatile organic compounds
SVOCs: semi-volatile organic compounds
PCBs: polychlorinated biphenyls
EPH: extractable petroleum hydrocarbons
VPH: volatile petroleum hydrocarbons
TIC: tentatively identified compound

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CIW-1B		CIW-1B		CIW-1B		CIW-1B		CIW-1B		CIW-1B		CIW-1B		CIW-1B	
			Sample Date	9/15/2017		4/11/2018		10/10/2018		3/29/2019		9/26/2019		4/1/2020		10/1/2020		4/8/2021	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C0901517-CIW1B		C041118-CIW1B		C101018-CIW1B		C032919-CIW1B		C092619-CIW1B		C040120-CLW1B		C100120-CIW1B		CO40821-C1W1B	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	10	U	10	U	10	U	0.5	U	10	U	10	U	10	U	10	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	20	U	20	U	20	U	1.6		20	U	20	U	20	U	20	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	20	U	20	U	20	U	2.6		20	U	20	U	20	U	20	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	100	U	100	U	100	U	5	U	100	U	100	U	100	U	100	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
1,4-Dioxane	SW8260	123-91-1	ug/L	1000	U	1000	U	1000	U	50	U	1000	U	1000	U	1000	U	1000	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
2-Butanone	SW8260	78-93-3	ug/L	200	U	200	U	200	U	10	U	200	U	200	U	200	U	200	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
2-Hexanone	SW8260	591-78-6	ug/L	200	U	200	U	200	U	10	U	200	U	200	U	200	U	200	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	200	U	200	U	200	U	10	U	200	U	200	U	200	U	200	U
Acetone	SW8260	67-64-1	ug/L	1000	U	1000	U	1000	U	50	U	1000	U	1000	U	1000	U	1000	U
Benzene	SW8260	71-43-2	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Bromobenzene	SW8260	108-86-1	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Bromochloromethane	SW8260	74-97-5	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Bromodichloromethane	SW8260	75-27-4	ug/L	10	U	10	U	10	U	0.5	U	10	U	10	U	10	U	10	U
Bromoform	SW8260	75-25-2	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Bromomethane	SW8260	74-83-9	ug/L	40	U	40	U	40	U	2	U	40	U	40	U	40	U	40	UJ
Butylbenzene	SW8260	104-51-8	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Carbon Disulfide	SW8260	75-15-0	ug/L	200	U	200	U	200	U	10	U	200	U	200	U	200	U	200	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Chlorobenzene	SW8260	108-90-7	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Chloroethane	SW8260	75-00-3	ug/L	40	U	40	U	40	U	2.6		40	U	40	U	40	U	40	UJ
Chloroform	SW8260	67-66-3	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Chloromethane	SW8260	74-87-3	ug/L	40	U	40	U	40	U	2	U	40	U	40	U	40	U	40	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	140		260		170		180		210		320		270		180	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	8	U	8	U	8	U	0.4	U	8	U	8	U	8	U	8	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CIW-1B		CIW-1B		CIW-1B		CIW-1B		CIW-1B		CIW-1B		CIW-1B		CIW-1B	
			Sample Date	9/15/2017		4/11/2018		10/10/2018		3/29/2019		9/26/2019		4/1/2020		10/1/2020		4/8/2021	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C0901517-CIW1B		C041118-CIW1B		C101018-CIW1B		C032919-CIW1B		C092619-CIW1B		C040120-CLW1B		C100120-CIW1B		CO40821-C1W1B	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	200	U	200	U	200	U	10	U								
Dibromochloromethane	SW8260	124-48-1	ug/L	10	U	10	U	10	U	0.5	U	10	U	10	U	10	U	10	U
Dibromomethane	SW8260	74-95-3	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Diethyl Ether	SW8260	60-29-7	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	100	U	100	U	100	U	5	U	100	U	100	U	100	U	100	U
Ethylbenzene	SW8260	100-41-4	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	8	U	8	U	8	U	0.4	U	8	U	8	U	8	U	8	U
Isopropyl Ether	SW8260	180-20-3	ug/L									200	U	200	U	200	U	200	U
Isopropylbenzene	SW8260	98-82-8	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
m&p-Xylenes	SW8260	NA	ug/L	40	U	40	U	40	U	2	U	40	U	40	U	40	U	40	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Methylene Chloride	SW8260	75-09-2	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	9.2	J	20	U
n-Propylbenzene	SW8260	103-65-1	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Naphthalene	SW8260	91-20-3	ug/L	100	U	100	U	100	U	5	U	100	U	100	U	100	U	100	U
o-Xylene	SW8260	95-47-6	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Styrene	SW8260	100-42-5	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	100	U	100	U	100	U	5	U	100	U	100	U	100	U	100	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Tetrachloroethene	SW8260	127-18-4	ug/L	20	U	20	U	16	J	15		11	J	27		7.5	J	13	J
Tetrahydrofuran	SW8260	109-99-9	ug/L	200	U	200	U	200	U	1.7	J+	200	U	200	U	200	U	200	U
Toluene	SW8260	108-88-3	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	18	J	37		22		23		31		48		41		23	
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	8	U	8	U	8	U	0.4	U	8	U	8	U	8	U	8	U
Trichloroethene	SW8260	79-01-6	ug/L	410		1000		830		1200		930		1900		1100		1000	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	20	U	20	U	20	U	1	U	20	U	20	U	20	U	20	U
Vinyl Chloride	SW8260	75-01-4	ug/L	80		92		67		75		95		120		190		70	

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-16B		CLW-16B		CLW-16B		CLW-16B		CLW-16B		CLW-16B		CLW-16B		CLW-16B	
			Sample Date	9/14/2017		4/12/2018		4/12/2018		10/16/2018		3/29/2019		9/27/2019		4/2/2020		10/1/2020	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C091417-CLW16B		C041218-CLW16B		C041218-CLW16BDUP		C101618-CLW16B		C032919-CLW16B		C092719-CLW16B		C040220-CLW 16B		C100120-CLW16B	
			QC Code	REG		REG		FD		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	50	U	63	U	63	U	50	U	0.5	U	25	U	63	U	63	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	500	U	630	U	630	U	500	U	5	U	250	U	630	U	630	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
1,4-Dioxane	SW8260	123-91-1	ug/L	5000	U	6300	U	6300	U	10000	U	50	U	2500	U	6300	U	6300	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
2-Butanone	SW8260	78-93-3	ug/L	1000	U	1300	U	1300	U	2500	U	10	U	500	U	1300	U	1300	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
2-Hexanone	SW8260	591-78-6	ug/L	1000	U	1300	U	1300	U	500	U	10	U	500	U	1300	U	1300	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	1000	U	1300	U	1300	U	500	U	10	U	500	U	1300	U	1300	U
Acetone	SW8260	67-64-1	ug/L	5000	U	6300	U	6300	U	1300	U	50	U	2500	U	6300	U	6300	U
Benzene	SW8260	71-43-2	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Bromobenzene	SW8260	108-86-1	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Bromochloromethane	SW8260	74-97-5	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Bromodichloromethane	SW8260	75-27-4	ug/L	50	U	63	U	63	U	50	U	0.5	U	25	U	63	U	63	U
Bromoform	SW8260	75-25-2	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Bromomethane	SW8260	74-83-9	ug/L	200	U	250	U	250	U	50	U	2	U	100	U	250	U	250	U
Butylbenzene	SW8260	104-51-8	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Carbon Disulfide	SW8260	75-15-0	ug/L	1000	U	1300	U	1300	U	50	U	10	U	500	U	1300	U	1300	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Chlorobenzene	SW8260	108-90-7	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Chloroethane	SW8260	75-00-3	ug/L	200	U	250	U	250	U	50	U	2	U	100	U	250	U	250	UJ
Chloroform	SW8260	67-66-3	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Chloromethane	SW8260	74-87-3	ug/L	200	U	250	U	250	U	50	U	2	U	100	U	250	U	250	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	3000		1800		1800		2100		330		2100		520		2900	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	40	U	50	U	50	U	50	U	0.4	U	20	U	50	U	50	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-16B		CLW-16B		CLW-16B		CLW-16B		CLW-16B		CLW-16B		CLW-16B		CLW-16B	
			Sample Date	9/14/2017		4/12/2018		4/12/2018		10/16/2018		3/29/2019		9/27/2019		4/2/2020		10/1/2020	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C091417-CLW16B		C041218-CLW16B		C041218-CLW16BDUP		C101618-CLW16B		C032919-CLW16B		C092719-CLW16B		C040220-CLW 16B		C100120-CLW16B	
			QC Code	REG		REG		FD		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	1000	U	1300	U	1300	U	100	U	10	U						
Dibromochloromethane	SW8260	124-48-1	ug/L	50	U	63	U	63	U	50	U	0.5	U	25	U	63	U	63	U
Dibromomethane	SW8260	74-95-3	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Diethyl Ether	SW8260	60-29-7	ug/L	100	U	130	U	130	U	250	U	1	U	50	U	130	U	130	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	500	U	630	U	630	U	50	U	5	U	250	U	630	U	630	U
Ethylbenzene	SW8260	100-41-4	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	40	U	50	U	50	U	100	U	0.4	U	20	U	50	U	50	U
Isopropyl Ether	SW8260	180-20-3	ug/L											500	U	1300	U	1300	U
Isopropylbenzene	SW8260	98-82-8	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
m&p-Xylenes	SW8260	NA	ug/L	200	U	250	U	250	U	100	U	2	U	100	U	250	U	250	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Methylene Chloride	SW8260	75-09-2	ug/L	100	U	71	J	82	J	250	U	1	U	50	U	63	J	130	U
n-Propylbenzene	SW8260	103-65-1	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Naphthalene	SW8260	91-20-3	ug/L	500	U	630	U	630	U	250	U	5	U	250	U	630	U	630	U
o-Xylene	SW8260	95-47-6	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Styrene	SW8260	100-42-5	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	500	U	630	U	630	U	50	U	5	U	250	U	630	U	630	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Tetrachloroethene	SW8260	127-18-4	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	1000	U	1300	U	1300	U	500	U	10	U	500	U	1300	U	1300	U
Toluene	SW8260	108-88-3	ug/L	100	U	130	U	130	U	50	U	0.71	J	50	U	130	U	130	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	350		270		240		320		66		430		120	J	560	
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	40	U	50	U	50	U	50	U	0.4	U	20	U	50	U	50	U
Trichloroethene	SW8260	79-01-6	ug/L	12000		6700		6800		9200		1700		8700		2700		14000	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	100	U	130	U	130	U	50	U	1	U	50	U	130	U	130	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1200		590		540		760		39		780		130	U	790	J

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-16B		CLW-17		CLW-17		CLW-17		CLW-17		CLW-17		CLW-17		CLW-17	
			Sample Date	4/7/2021		9/13/2017		4/11/2018		10/17/2018		3/28/2019		9/25/2019		4/1/2020		9/29/2020	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C040721-CLW16B		C091317-CLW17		C041118-CLW17		C101718-CLW17		C032819-CLW17		C092519-CLW17		C040120-CLW17		C092920 - CLW17	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	100	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	1000	U	5	U	5	U	10	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	10000	U	50	U	50	U	200	U	50	U	50	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	2000	U	10	U	10	U	50	U	10	U	10	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	2000	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	2000	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	10000	U	50	U	50	U	25	U	3.9	J	3.1	J	50	U	50	U
Benzene	SW8260	71-43-2	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	100	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	400	U	2	U	2	U	1	U	2	U	2	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	2000	U	10	U	10	U	1	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	400	U	2	U	2	U	1	U	2	U	2	U	2	U	2	U
Chloroform	SW8260	67-66-3	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	400	U	2	U	2	U	1	U	2	U	2	U	2	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	480		2.7		3.6		0.87	J	18		1	U	1.3		4.1	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	80	U	0.4	U	0.4	U	1	U	0.4	U	0.4	U	0.4	U	0.4	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-16B		CLW-17		CLW-17		CLW-17		CLW-17		CLW-17		CLW-17		CLW-17	
			Sample Date	4/7/2021		9/13/2017		4/11/2018		10/17/2018		3/28/2019		9/25/2019		4/1/2020		9/29/2020	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C040721-CLW16B		C091317-CLW17		C041118-CLW17		C101718-CLW17		C032819-CLW17		C092519-CLW17		C040120-CLW17		C092920 - CLW17	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L			10	U	10	U	2	U	10	U						
Dibromochloromethane	SW8260	124-48-1	ug/L	100	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	200	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	200	U	1	U	1	U	5	U	1	U	1	U	1	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	1000	U	5	U	5	U	1	U	5	U	5	U	5	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	80	U	0.4	U	0.4	U	2	U	0.4	U	0.4	U	0.4	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L	2000	U									10	U	10	U	10	U
Isopropylbenzene	SW8260	98-82-8	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	400	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	200	U	1	U	1	U	5	U	1	U	1	U	1	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	1000	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	1000	U	5	U	5	U	1	U	5	U	5	U	5	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	2000	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	200	U	1	U	1	U	1	U	5.2		1	U	1	U	1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	80	U	0.4	U	0.4	U	1	U	0.4	U	0.4	U	0.4	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	4900		11		11		3.5		78		3.7		5.2		17	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	200	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CLW-17		CLW-17		CLW-17B		CLW-17B		CLW-17B		CLW-17B		CLW-17B		CLW-17B	
				Sample Date		4/7/2021		4/7/2021		9/13/2017		4/11/2018		10/17/2018		3/28/2019		9/25/2019		4/2/2020	
				Media		GW		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C040721-CLW17		C040721-CLW17DUP		C091317-CLW17B		C041118-CLW17B		C101718-CLW17B		C032819-CLW17B		C092519-CLW17 B		C040220-CLW 17B	
				QC Code		REG		FD		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	0.5	U	0.5	U	1	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	5	U	5	U	10	U	5	U	10	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	50	U	50	U	100	U	50	U	200	U	50	U	50	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	10	U	10	U	20	U	10	U	50	U	10	U	10	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	20	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	20	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	50	U	50	U	100	U	50	U	25	U	50	U	50	U	50	U	50	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	0.5	U	0.5	U	1	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	2	U	2	U	4	U	2	U	1	U	2	U	2	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	10	U	10	U	20	U	10	U	1	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	2	U	2	U	4	U	2	U	1	U	2	U	2	U	2	U	2	U
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	2	U	2	U	4	U	2	U	1	U	2	U	2	U	2	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	1	U	1	U	20		18		11		1	U	21		19			
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.4	U	0.4	U	0.8	U	0.4	U	1	U	0.4	U	0.4	U	0.4	U	0.4	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-17		CLW-17		CLW-17B		CLW-17B		CLW-17B		CLW-17B		CLW-17B		CLW-17B	
			Sample Date	4/7/2021		4/7/2021		9/13/2017		4/11/2018		10/17/2018		3/28/2019		9/25/2019		4/2/2020	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C040721-CLW17		C040721-CLW17DUP		C091317-CLW17B		C041118-CLW17B		C101718-CLW17B		C032819-CLW17B		C092519-CLW17 B		C040220-CLW 17B	
			QC Code	REG		FD		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L					20	U	10	U	2	U	10	U				
Dibromochloromethane	SW8260	124-48-1	ug/L	0.5	U	0.5	U	1	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	U	2	UJ	1	U	1	U	1	U	1	U	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	1	U	1	U	2	U	1	U	5	U	1	U	1	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	5	U	5	U	10	U	5	U	1	U	5	U	5	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.4	U	0.4	U	0.8	U	0.4	U	2	U	0.4	U	0.4	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L	10	U	10	U									10	U	10	U
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	4	U	2	U	2	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	1	U	1	U	2	U	1	U	5	U	1	U	1	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	10	U	5	U	5	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	5	U	5	U	10	U	5	U	1	U	5	U	5	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	20	U	10	U	10	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	1	U	1	U	2	U	1	U	0.6	J	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	U	5.7		4.2		2.7		1	U	5.2		4.9	
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.4	U	0.4	U	0.8	U	0.4	U	1	U	0.4	U	0.4	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	2.7		2.5		100		75		46		0.74	J	79		80	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-17B		CLW-17B		CLW-17B		CLW-19		CLW-19		CLW-19		CLW-19		CLW-19	
			Sample Date	4/2/2020		9/29/2020		4/7/2021		9/12/2017		4/10/2018		10/16/2018		3/28/2019		9/24/2019	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C040220-CLW 17B DUP		C092920 - CLW17B		C040721-CLW17B		C091217-CLW19		C041018-CLW19		C101618-CLW19		C032819-CLW19		C092419-CLW19 DUP	
			QC Code	FD		REG		REG		REG		REG		REG		REG		FD	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	5	U	5	U	5	U	5	U	5	U	10	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	50	U	50	U	50	U	50	U	50	U	200	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	10	U	10	U	10	U	10	U	10	U	50	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	50	U	50	U	50	U	50	U	50	U	25	U	50	U	50	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	2	U	2	U	2	U	2	U	2	U	1	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	10	U	10	U	10	U	10	U	10	U	1	U	10	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	2	U	2	U	2	U	2	U	2	U	1	U	2	U	2	U
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	2	U	2	U	2	U	2	U	2	U	1	U	2	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	20		25		17		1	U	1	U	1	U	1	U	1	U
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	1	U	0.4	U	0.4	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location	CLW-17B		CLW-17B		CLW-17B		CLW-19		CLW-19		CLW-19		CLW-19		CLW-19		CLW-19	
				Sample Date	4/2/2020		9/29/2020		4/7/2021		9/12/2017		4/10/2018		10/16/2018		3/28/2019		9/24/2019			
				Media	GW		GW		GW		GW		GW		GW		GW		GW			
				Field Sample ID	C040220-CLW 17B DUP		C092920 - CLW17B		C040721-CLW17B		C091217-CLW19		C041018-CLW19		C101618-CLW19		C032819-CLW19		C092419-CLW19 DUP			
				QC Code	FD		REG		REG		REG		REG		REG		REG		FD			
				Filtered Flag	T		T		T		T		T		T		T		T			
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L							10	U	10	U	2	U	10	U				
Dibromochloromethane	SW8260	124-48-1	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U		
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	UJ		
Diethyl Ether	SW8260	60-29-7	ug/L	1	U	1	U	1	U	1	U	1	U	5	U	1	U	1	U		
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	5	U	5	U	5	U	5	U	5	U	1	U	5	U	5	U		
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	2	U	0.4	U	0.4	U		
Isopropyl Ether	SW8260	180-20-3	ug/L	10	U	10	U	10	U									10	U		
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U		
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Methylene Chloride	SW8260	75-09-2	ug/L	1	U	1	U	1	U	1	U	1	U	5	U	1	U	1	U		
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U		
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	5	U	5	U	5	U	5	U	5	U	1	U	5	U	5	U		
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U		
Toluene	SW8260	108-88-3	ug/L	1	U	0.55	J	1	U	1	U	1	U	1	U	1	U	1	U		
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	5		6.5		4.4		1	U	1	U	1	U	1	U	1	U		
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	1	U	0.4	U	0.4	U		
Trichloroethene	SW8260	79-01-6	ug/L	81		99		70		2.5		0.75	J	0.66	J	0.52	J	2.5			
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-19		CLW-19		CLW-19		CLW-19		CLW-19B		CLW-19B		CLW-19B		CLW-19B	
			Sample Date	9/24/2019		3/31/2020		9/29/2020		4/8/2021		9/12/2017		4/10/2018		4/10/2018		10/16/2018	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C092419-CLW19		C033120 - CLW19		C092920 - CLW19		CO40821-CLW19		C091217-CLW19B		C041018-CLW19B		C041018-CLW19B DUP		C101618-CLW19B	
			QC Code	REG		REG		REG		REG		REG		REG		FD		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	10	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	UJ	50	UJ	200	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	50	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	25	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	2	U	2	U	2	U	2	UJ	2	U	2	U	2	U	1	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	1	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	2	U	2	U	2	U	2	UJ	2	U	2	U	2	U	1	U
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	1	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	0.85	J	1	U	1.1		1	U	1	U	1	U	1	U	1	U
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	1	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-19		CLW-19		CLW-19		CLW-19		CLW-19B		CLW-19B		CLW-19B		CLW-19B	
			Sample Date	9/24/2019		3/31/2020		9/29/2020		4/8/2021		9/12/2017		4/10/2018		4/10/2018		10/16/2018	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C092419-CLW19		C033120 - CLW19		C092920 - CLW19		CO40821-CLW19		C091217-CLW19B		C041018-CLW19B		C041018-CLW19B DUP		C101618-CLW19B	
			QC Code	REG		REG		REG		REG		REG		REG		FD		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L									10	U	10	U	10	U	2	U
Dibromochloromethane	SW8260	124-48-1	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	5	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	1	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	2	U
Isopropyl Ether	SW8260	180-20-3	ug/L	10	U	10	U	10	U	10	U								
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	5	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	1	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	1	U
Trichloroethene	SW8260	79-01-6	ug/L	3		0.52	J	4.5		1		1.8		1.1		0.96	J	0.87	J
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-19B		CLW-19B		CLW-19B		CLW-19B		CLW-19B		CLW-20		CLW-20		CLW-20	
			Sample Date	3/28/2019		9/24/2019		3/31/2020		9/29/2020		4/6/2021		9/12/2017		4/10/2018		10/16/2018	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C032819-CLW19B		C092419-CLW19B		C033120 - CLW19B		C092920 - CLW19B		C040621-CLW19B		C091217-CLW20		C041018-CLW20		C101618-CLW20	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	10	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	200	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	50	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	50	U	4.3	J	50	U	50	U	50	U	50	U	50	U	25	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	1	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	1	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	1	U
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	1	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	1	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-19B		CLW-19B		CLW-19B		CLW-19B		CLW-19B		CLW-20		CLW-20		CLW-20	
			Sample Date	3/28/2019		9/24/2019		3/31/2020		9/29/2020		4/6/2021		9/12/2017		4/10/2018		10/16/2018	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C032819-CLW19B		C092419-CLW19B		C033120 - CLW19B		C092920 - CLW19B		C040621-CLW19B		C091217-CLW20		C041018-CLW20		C101618-CLW20	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	10	U									10	U	10	U	2	U
Dibromochloromethane	SW8260	124-48-1	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	5	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	1	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	2	U
Isopropyl Ether	SW8260	180-20-3	ug/L			10	U	10	U	10	U	10	U						
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	5	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	1	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	1	U
Trichloroethene	SW8260	79-01-6	ug/L	0.99	J	2.5		1.2		3.4		1.5		0.89	J	1.9		1.1	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-20		CLW-20		CLW-20		CLW-20		CLW-20		CLW-20		CLW-20B		CLW-20B	
			Sample Date	10/16/2018		3/28/2019		9/25/2019		4/2/2020		9/29/2020		4/6/2021		9/12/2017		4/10/2018	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C101618-CLW20DUP		C032819-CLW20		C092519-CLW20		C040220-CLW 20		C092920 - CLW20		C040621-CLW20		C091217-CLW20B		C041018-CLW20B	
			QC Code	FD		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	0.42	J	0.68	J
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	10	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	200	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	50	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	25	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	1	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	1	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	1	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	1	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	1	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-20		CLW-20		CLW-20		CLW-20		CLW-20		CLW-20		CLW-20B		CLW-20B	
			Sample Date	10/16/2018		3/28/2019		9/25/2019		4/2/2020		9/29/2020		4/6/2021		9/12/2017		4/10/2018	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C101618-CLW20DUP		C032819-CLW20		C092519-CLW20		C040220-CLW 20		C092920 - CLW20		C040621-CLW20		C091217-CLW20B		C041018-CLW20B	
			QC Code	FD		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	2	U	10	U									10	U	10	U
Dibromochloromethane	SW8260	124-48-1	ug/L	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	5	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	1	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	2	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L					10	U	10	U	10	U	10	U				
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	0.18	J
Methylene Chloride	SW8260	75-09-2	ug/L	5	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	1	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	1	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	0.9	J	1.6		0.94	J	1.5		1.4		2.8		1	U	1	U
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location	CLW-20B		CLW-20B		CLW-20B		CLW-20B		CLW-20B		CLW-20B		CLW-22		CLW-22	
				Sample Date	10/16/2018		3/28/2019		9/25/2019		4/2/2020		9/29/2020		4/6/2021		9/12/2017		4/11/2018	
				Media	GW		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID	C101618-CLW20B		C032819-CLW20B		C092519-CLW20 B		C040220-CLW 20B		C092920 - CLW20B		C040621-CLW20B		C091217-CLW22		C041118-CLW22	
				QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	0.72	J	1	U	0.87	J	1	U	0.43	J	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	10	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	200	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	50	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	25	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	1	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	1	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	1	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	1	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1.5	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	1	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location	CLW-20B		CLW-20B		CLW-20B		CLW-20B		CLW-20B		CLW-20B		CLW-22		CLW-22	
				Sample Date	10/16/2018		3/28/2019		9/25/2019		4/2/2020		9/29/2020		4/6/2021		9/12/2017		4/11/2018	
				Media	GW		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID	C101618-CLW20B		C032819-CLW20B		C092519-CLW20 B		C040220-CLW 20B		C092920 - CLW20B		C040621-CLW20B		C091217-CLW22		C041118-CLW22	
				QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	2	U	10	U									10	U	10	U
Dibromochloromethane	SW8260	124-48-1	ug/L	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	5	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	1	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	2	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L					10	U	10	U	10	U	10	U				
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	0.16	J	1	U	1	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	5	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	1	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	1	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	1	U	1	U	1	U	0.49	J	1	U	1	U	16		7.9	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-22		CLW-22		CLW-22		CLW-22		CLW-22		CLW-22		CLW-22B		CLW-22B	
			Sample Date	10/17/2018		3/28/2019		9/24/2019		3/31/2020		9/29/2020		4/6/2021		9/13/2017		4/11/2018	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C101718-CLW22		C032819-CLW22		C092419-CLW22		C033120 - CLW22		C092920 - CLW22		C040621-CLW22		C091317-CLW22B		C041118-CLW22B	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	10	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	200	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	50	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	25	U	50	U	3.6	J	50	U	50	U	50	U	50	U	50	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	1	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	1	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	1	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	1	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	1.4		1.7		4.4		1.8		4		1.1		2.6		1.7	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	1	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-22		CLW-22		CLW-22		CLW-22		CLW-22		CLW-22		CLW-22B		CLW-22B	
			Sample Date	10/17/2018		3/28/2019		9/24/2019		3/31/2020		9/29/2020		4/6/2021		9/13/2017		4/11/2018	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C101718-CLW22		C032819-CLW22		C092419-CLW22		C033120 - CLW22		C092920 - CLW22		C040621-CLW22		C091317-CLW22B		C041118-CLW22B	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	2	U	10	U									10	U	10	U
Dibromochloromethane	SW8260	124-48-1	ug/L	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	UJ	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	5	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	1	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	2	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L					10	U	10	U	10	U	10	U				
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	5	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	1	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	1	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	8.8		8.1		20		9		20		6.3		17		11	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-22B		CLW-22B		CLW-22B		CLW-22B		CLW-22B		CLW-22B		CLW-5A		CLW-5A	
			Sample Date	10/17/2018		3/28/2019		9/24/2019		3/31/2020		9/29/2020		4/6/2021		9/14/2017		4/10/2018	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C101718-CLW22B		C032819-CLW22B		C092419-CLW22B		C033120 - CLW22B		C092920 - CLW22B		C040621-CLW22B		C091417-CLW5A		C041018-CLW5A	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	4.9		1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	10	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	200	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	50	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	25	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	1	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	1	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	1	U	2	U	2	U	2	U	2	U	2	U	1.4	J	2	U
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	1	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	1.5		1.9		4.1		1.5		3.6		1.1		550		1	U
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	1	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-22B		CLW-22B		CLW-22B		CLW-22B		CLW-22B		CLW-22B		CLW-5A		CLW-5A	
			Sample Date	10/17/2018		3/28/2019		9/24/2019		3/31/2020		9/29/2020		4/6/2021		9/14/2017		4/10/2018	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C101718-CLW22B		C032819-CLW22B		C092419-CLW22B		C033120 - CLW22B		C092920 - CLW22B		C040621-CLW22B		C091417-CLW5A		C041018-CLW5A	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	2	U	10	U									10	U	10	U
Dibromochloromethane	SW8260	124-48-1	ug/L	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	5	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	1	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	2	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L					10	U	10	U	10	U	10	U				
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	5	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	1	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	3.7		1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	1	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	6		11		19		7.8		19		6.7		1300		1.5	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	130		1	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CLW-5A		CLW-5A		OSW-5A		CLW-5A		CLW-5A		CLW-5A		CLW-5A		CLW-5B	
				Sample Date		10/10/2018		3/27/2019		3/27/2019		3/30/2020		3/30/2020		4/5/2021		4/5/2021		9/14/2017	
				Media		GW		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C101018-CLW5A		C032719-CCW5A		C032719-CCW5A-DUP		C033020-CLW5A		C033020-CLW5A DUP		C040521-CLW5A DUP		C04521-CLW5A		C091417-CLW5B	
				QC Code		REG		REG		FD		REG		FD		FD		REG		REG	
				Filtered Flag		T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	U	1	U	2	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	U	1	U	1.9	J
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	U	1	U	2	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	10	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	U	1	U	2	U
1,4-Dioxane	SW8260	123-91-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	100	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	UJ	1	UJ	2	U
2-Butanone	SW8260	78-93-3	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	20	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	20	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	20	U
Acetone	SW8260	67-64-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	100	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	U	1	U	2	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	U	1	U	2	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
Bromodichloromethane	SW8260	75-27-4	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
Bromomethane	SW8260	74-83-9	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	4	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
Carbon Disulfide	SW8260	75-15-0	ug/L	10	U	10	UJ	10	UJ	10	U	10	U	10	U	10	U	10	U	20	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	U	1	U	2	U
Chloroethane	SW8260	75-00-3	ug/L	2	U	2	UJ	2	UJ	2	U	2	U	2	U	2	U	2	U	6.9	
Chloroform	SW8260	67-66-3	ug/L	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	U	1	U	2	U
Chloromethane	SW8260	74-87-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	4	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	U	1	U	110	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.8	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CLW-5A		CLW-5A		OSW-5A		CLW-5A		CLW-5A		CLW-5A		CLW-5A		CLW-5B	
				Sample Date		10/10/2018		3/27/2019		3/27/2019		3/30/2020		3/30/2020		4/5/2021		4/5/2021		9/14/2017	
				Media		GW		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C101018-CLW5A		C032719-CCW5A		C032719-CCW5A-DUP		C033020-CLW5A		C033020-CLW5A DUP		C040521-CLW5A DUP		C04521-CLW5A		C091417-CLW5B	
				QC Code		REG		REG		FD		REG		FD		FD		REG		REG	
				Filtered Flag		T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	10	U	10	U	10	U											20	U
Dibromochloromethane	SW8260	124-48-1	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	U	1	U	2	U
Diethyl Ether	SW8260	60-29-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	10	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	U	1	U	2	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.8	U
Isopropyl Ether	SW8260	180-20-3	ug/L							10	U	10	U	10	U	10	U				
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	UJ	2	UJ	2	U	2	U	2	U	2	U	2	U	4	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
Methylene Chloride	SW8260	75-09-2	ug/L	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	U	1	U	2	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	10	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	U	1	U	2	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	10	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	20	U
Toluene	SW8260	108-88-3	ug/L	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	U	1	U	2	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	U	1	U	7.5	
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.8	U
Trichloroethene	SW8260	79-01-6	ug/L	4.8		1.8	J-	2.1	J-	0.78	J+	0.8	J	0.72	J	0.58	J	140			
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	28	

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-5B		CLW-5B		CLW-5B		CLW-5B		CLW-5B		CLW-5B		CLW-5B		CLW-8	
			Sample Date	4/10/2018		10/16/2018		3/27/2019		9/27/2019		3/30/2020		9/30/2020		4/5/2021		9/12/2017	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C041018-CLW5B		C101618-CLW5B		C032719-CCW5B		C092719-CLW5B		C033020-CLW5B		C093020-CLW5B		C040521-CLW5B		C091217-CLW8A	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	2.5	U	1	U	0.5	U	5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	3.9	J	7		1	U	10	U	1	U	3.3		1	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	25	U	10	U	5	U	50	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	250	U	200	U	50	U	500	U	50	U	50	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	50	U	50	U	10	U	100	U	10	U	10	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	50	U	10	U	10	U	100	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	50	U	10	U	10	U	100	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	250	U	25	U	50	U	500	U	50	U	50	U	50	U	50	U
Benzene	SW8260	71-43-2	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	2.5	U	1	U	0.5	U	5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	10	U	1	U	2	U	20	U	2	U	2	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	50	U	1	U	10	U	100	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	9.3	J	22		2	U	7.6	J	2	U	6.9		2	U	2	U
Chloroform	SW8260	67-66-3	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	10	U	1	U	2	U	20	U	2	U	2	U	2	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	170		440		6.3		160		1.9		200		13		5.6	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	2	U	1	U	0.4	U	4	U	0.4	U	0.4	U	0.4	U	0.4	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-5B		CLW-5B		CLW-5B		CLW-5B		CLW-5B		CLW-5B		CLW-5B		CLW-8	
			Sample Date	4/10/2018		10/16/2018		3/27/2019		9/27/2019		3/30/2020		9/30/2020		4/5/2021		9/12/2017	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C041018-CLW5B		C101618-CLW5B		C032719-CCW5B		C092719-CLW5B		C033020-CLW5B		C093020-CLW5B		C040521-CLW5B		C091217-CLW8A	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	50	U	2	U	10	U									10	U
Dibromochloromethane	SW8260	124-48-1	ug/L	2.5	U	1	U	0.5	U	5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	5	U	5	U	1	U	10	U	1	U	1	U	1	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	25	U	1	U	5	U	50	U	5	U	5	U	5	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	2	U	2	U	0.4	U	4	U	0.4	U	0.4	U	0.4	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L							100	U	10	U	10	U	10	U		
Isopropylbenzene	SW8260	98-82-8	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	10	U	2	U	2	U	20	U	2	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	5	U	5	U	1	U	10	U	1	U	0.7	J	1	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	25	U	5	U	5	U	50	U	5	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	5	U	0.76	J	1	U	10	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	25	U	1	U	5	U	50	U	5	U	5	U	5	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	50	U	10	U	10	U	100	U	10	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	10		19		1	U	10		1	U	12		1.4		1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	2	U	1	U	0.4	U	4	U	0.4	U	0.4	U	0.4	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	250		830		24		340		15		290		41		32	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	5	U	1	U	1	U	10	U	1	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	5	U	140		1	U	11		1	U	16		1	U	1	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-8		CLW-8		CLW-8		CLW-8		CLW-8		CLW-8		DMW-A		DMW-A	
			Sample Date	4/9/2018		10/15/2018		9/23/2019		3/30/2020		10/1/2020		4/5/2021		9/12/2017		4/9/2018	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C040918-CLW8		C101518-CLW8		C092319-CLW8		C033020-CLW8		C100120-CLW8		C04521-CLW8		C091217-DMWA		C040918-DMWA	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	0.43	J	1	U	1	U	1	U	1	U	1	U	1.1		1.2	
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	10	U	10	U	10	U	10	U	5.7	J	10	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	50	U	50	U	50	U	50	U	22	J	50	U	50	U	50	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	9.2		6.9		5.2		8.7		6.5		3.7		62		48	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-8		CLW-8		CLW-8		CLW-8		CLW-8		CLW-8		DMW-A		DMW-A	
			Sample Date	4/9/2018		10/15/2018		9/23/2019		3/30/2020		10/1/2020		4/5/2021		9/12/2017		4/9/2018	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C040918-CLW8		C101518-CLW8		C092319-CLW8		C033020-CLW8		C100120-CLW8		C04521-CLW8		C091217-DMWA		C040918-DMWA	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	10	U	10	U									10	U	10	U
Dibromochloromethane	SW8260	124-48-1	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L					10	U	10	U	10	U	10	U				
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	0.43	J	1	U	1	U	1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	31		31		37		28		11		11		20		23	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	2.7		4.4	

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		DMW-A		DMW-A		DMW-A		DMW-A		DMW-A		DMW-A		DMW-B		DMW-B	
				Sample Date		10/15/2018		3/28/2019		9/23/2019		3/31/2020		9/30/2020		4/5/2021		9/12/2017		4/9/2018	
				Media		GW		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C101518-DMWA		C032819-DMWA		C092319-DMWA		C033120 - DMWA		C093020-DMWA		C040521-DMWA		C091217-DMWB		C040918-DMWB	
				QC Code		REG		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	0.45	J	0.42	J	1	U	1	U	1	U	1	U	1	U	1	U	1.3	
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	0.21	J	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	27		18		10		11		16		16		30		170			
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location	DMW-A		DMW-A		DMW-A		DMW-A		DMW-A		DMW-A		DMW-B		DMW-B	
				Sample Date	10/15/2018		3/28/2019		9/23/2019		3/31/2020		9/30/2020		4/5/2021		9/12/2017		4/9/2018	
				Media	GW		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID	C101518-DMWA		C032819-DMWA		C092319-DMWA		C033120 - DMWA		C093020-DMWA		C040521-DMWA		C091217-DMWB		C040918-DMWB	
				QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	10	U		10	U									10	U	10	U
Dibromochloromethane	SW8260	124-48-1	ug/L	0.5	U		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U		1	U	1	U	1	U	1	U	1	U	1	UJ	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	1	U		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	5	U		5	U	5	U	5	U	5	U	5	U	5	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.4	U		0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L						10	U	10	U	10	U	10	U				
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U		1	U	1	U	1	U	1	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	2	U		2	U	2	U	2	U	2	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	1	U		1	U	1	U	1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	5	U		5	U	5	U	5	U	5	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	1	U		1	U	1	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	1	U		1	U	1	U	1	U	1	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	5	U		5	U	5	U	5	U	5	U	5	U	5	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U		10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	1	U		1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U		1	U	1	U	1	U	1	U	1	U	4.5		54	
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.4	U		0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	4			4.8		1.1		4		2.8		5		4.6		86	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	2.1			1.7		1	U	1	U	1.2		1		0.93	J	14	

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location	DMW-B		DMW-B		DMW-B		DMW-B		DMW-B		DMW-B		OSW-1A		OSW-1A	
				Sample Date	10/15/2018		3/28/2019		9/23/2019		3/31/2020		9/30/2020		4/5/2021		9/14/2017		4/10/2018	
				Media	GW		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID	C101518-DMWB		C032819-DMWB		C092319-DMWB		C033120 - DMWB		C093020-DMWB		C040521-DMWB		C091417-OSW1A		C041018-OSW1A	
				QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	2	U	2	U	0.5	U	2	U	2	U	2	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	4	U	4	U	0.35	J	4	U	4	U	4	U	1	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	20	U	20	U	5	U	20	U	20	U	20	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	200	U	200	U	50	U	200	U	200	U	200	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	40	U	40	U	10	U	40	U	40	U	40	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	40	U	40	U	10	U	40	U	40	U	40	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	40	U	40	U	10	U	40	U	40	U	40	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	200	U	200	U	50	U	200	U	200	U	200	U	50	U	50	U
Benzene	SW8260	71-43-2	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	2	U	2	U	0.5	U	2	U	2	U	2	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	8	U	8	U	2	U	8	U	8	U	8	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	40	U	40	U	10	U	40	U	40	U	40	U	10	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	8	U	8	U	2	U	8	U	8	U	8	U	2	U	2	U
Chloroform	SW8260	67-66-3	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	8	U	8	U	2	U	8	U	8	U	8	U	2	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	100		150		69		160		83		130		1	U	1	U
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	1.6	U	1.6	U	0.4	U	1.6	U	1.6	U	1.6	U	0.4	U	0.4	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	DMW-B		DMW-B		DMW-B		DMW-B		DMW-B		DMW-B		OSW-1A		OSW-1A	
			Sample Date	10/15/2018		3/28/2019		9/23/2019		3/31/2020		9/30/2020		4/5/2021		9/14/2017		4/10/2018	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C101518-DMWB		C032819-DMWB		C092319-DMWB		C033120 - DMWB		C093020-DMWB		C040521-DMWB		C091417-OSW1A		C041018-OSW1A	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	40	U	40	U									10	U	10	U
Dibromochloromethane	SW8260	124-48-1	ug/L	2	U	2	U	0.5	U	2	U	2	U	2	U	0.5	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	20	U	20	U	5	U	20	U	20	U	20	U	5	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	1.6	U	1.6	U	0.4	U	1.6	U	1.6	U	1.6	U	0.4	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L					10	U	40	U	40	U	40	U				
Isopropylbenzene	SW8260	98-82-8	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	8	U	8	U	2	U	8	U	8	U	8	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	4	U	4	U	1	U	4	U	2	J	4	U	1	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	20	U	20	U	5	U	20	U	20	U	20	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	20	U	20	U	5	U	20	U	20	U	20	U	5	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	40	U	40	U	10	U	40	U	40	U	40	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	27		53		17		47		18		29		1	U	1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	1.6	U	1.6	U	0.4	U	1.6	U	1.6	U	1.6	U	0.4	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	30		61		21		51		13		34		6.3		3	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	4	U	4	U	1	U	4	U	4	U	4	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	11		19		4.7		12		8.5		4		1	U	1	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	OSW-1A		OSW-1A		OSW-1A		OSW-1A		OSW-1A		OSW-1A		OSW-1A		OSW-1B	
			Sample Date	10/10/2018		3/29/2019		3/29/2019		9/26/2019		3/31/2020		10/1/2020		4/8/2021		9/14/2017	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C101018-OSW1A		C032919-OSW1		C032919-OSW1-DUP		C092619-OSW1A		C033120 - OSW1A		C100120-OSW1A		CO40821-OSW1A		C091417-OSW1B	
			QC Code	REG		REG		FD		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	25	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	250	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
1,4-Dioxane	SW8260	123-91-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	2500	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
2-Butanone	SW8260	78-93-3	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	500	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	500	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	500	U
Acetone	SW8260	67-64-1	ug/L	50	U	50	U	50	U	50	U	50	U	3.2	J	50	U	2500	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Bromodichloromethane	SW8260	75-27-4	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	25	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Bromomethane	SW8260	74-83-9	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	UJ	100	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Carbon Disulfide	SW8260	75-15-0	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	500	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Chloroethane	SW8260	75-00-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	UJ	100	U
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Chloromethane	SW8260	74-87-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	100	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	490	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	20	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	OSW-1A		OSW-1A		OSW-1A		OSW-1A		OSW-1A		OSW-1A		OSW-1A		OSW-1B	
			Sample Date	10/10/2018		3/29/2019		3/29/2019		9/26/2019		3/31/2020		10/1/2020		4/8/2021		9/14/2017	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C101018-OSW1A		C032919-OSW1		C032919-OSW1-DUP		C092619-OSW1A		C033120 - OSW1A		C100120-OSW1A		CO40821-OSW1A		C091417-OSW1B	
			QC Code	REG		REG		FD		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	10	U	10	U	10	U									500	U
Dibromochloromethane	SW8260	124-48-1	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	25	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Diethyl Ether	SW8260	60-29-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	250	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	20	U
Isopropyl Ether	SW8260	180-20-3	ug/L							10	U	10	U	10	U	10	U		
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	100	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Methylene Chloride	SW8260	75-09-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	250	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	250	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	500	U
Toluene	SW8260	108-88-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	20	U
Trichloroethene	SW8260	79-01-6	ug/L	2.4		3.5		3.7		7.3		3.4		3.9		2.9		3300	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	50	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	47	J

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	OSW-1B		OSW-1B		OSW-1B		OSW-1B		OSW-1B		OSW-1B		OSW-1B		OSW-2B	
			Sample Date	4/10/2018		10/10/2018		3/29/2019		9/25/2019		3/31/2020		9/30/2020		4/8/2021		9/13/2017	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C041018-OSW1B		C101018-OSW1B		C032919-OSW1B		C092519-OSW1 B		C033120 - OSW1B		C093020-OSW1B		CO40821-OSW1B		C091317-OSW2B	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	25	U	25	U	50	U	50	U	25	U	10	U	5	U	20	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	250	U	250	U	500	U	500	U	250	U	100	U	50	U	200	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
1,4-Dioxane	SW8260	123-91-1	ug/L	2500	U	2500	U	5000	U	5000	U	2500	U	1000	U	500	U	2000	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
2-Butanone	SW8260	78-93-3	ug/L	500	U	500	U	1000	U	1000	U	500	U	200	U	100	U	400	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
2-Hexanone	SW8260	591-78-6	ug/L	500	U	500	U	1000	U	1000	U	500	U	200	U	100	U	400	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	500	U	500	U	1000	U	1000	U	500	U	200	U	100	U	400	U
Acetone	SW8260	67-64-1	ug/L	2500	U	2500	U	5000	U	5000	U	2500	U	1000	U	500	U	2000	U
Benzene	SW8260	71-43-2	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Bromobenzene	SW8260	108-86-1	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Bromochloromethane	SW8260	74-97-5	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Bromodichloromethane	SW8260	75-27-4	ug/L	25	U	25	U	50	U	50	U	25	U	10	U	5	U	20	U
Bromoform	SW8260	75-25-2	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Bromomethane	SW8260	74-83-9	ug/L	100	U	100	U	200	U	200	U	100	U	40	U	20	UJ	80	U
Butylbenzene	SW8260	104-51-8	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Carbon Disulfide	SW8260	75-15-0	ug/L	500	U	500	U	1000	U	1000	U	500	U	200	U	100	U	400	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Chlorobenzene	SW8260	108-90-7	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Chloroethane	SW8260	75-00-3	ug/L	100	U	100	U	200	U	200	U	100	U	40	U	20	UJ	80	U
Chloroform	SW8260	67-66-3	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Chloromethane	SW8260	74-87-3	ug/L	100	U	100	U	200	U	200	U	100	U	40	U	20	U	80	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	280		240		320		200		370		200		95		100	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	20	U	20	U	40	U	40	U	20	U	8	U	4	U	16	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location	OSW-1B		OSW-1B		OSW-1B		OSW-1B		OSW-1B		OSW-1B		OSW-1B		OSW-2B	
				Sample Date	4/10/2018		10/10/2018		3/29/2019		9/25/2019		3/31/2020		9/30/2020		4/8/2021		9/13/2017	
				Media	GW		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID	C041018-OSW1B		C101018-OSW1B		C032919-OSW1B		C092519-OSW1 B		C033120 - OSW1B		C093020-OSW1B		CO40821-OSW1B		C091317-OSW2B	
				QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	500	U	500	U	1000	U									400	U
Dibromochloromethane	SW8260	124-48-1	ug/L	25	U	25	U	50	U	50	U	25	U	10	U	5	U	20	U
Dibromomethane	SW8260	74-95-3	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	UJ
Diethyl Ether	SW8260	60-29-7	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	250	U	250	U	500	U	500	U	250	U	100	U	50	U	200	U
Ethylbenzene	SW8260	100-41-4	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	20	U	20	U	40	U	40	U	20	U	8	U	4	U	16	U
Isopropyl Ether	SW8260	180-20-3	ug/L							1000	U	500	U	200	U	100	U		
Isopropylbenzene	SW8260	98-82-8	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
m&p-Xylenes	SW8260	NA	ug/L	100	U	100	U	200	U	200	U	100	U	40	U	20	U	80	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Methylene Chloride	SW8260	75-09-2	ug/L	50	U	31	J	100	U	100	U	25	J	20	U	10	U	40	U
n-Propylbenzene	SW8260	103-65-1	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Naphthalene	SW8260	91-20-3	ug/L	250	U	250	U	500	U	500	U	250	U	100	U	50	U	200	U
o-Xylene	SW8260	95-47-6	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Styrene	SW8260	100-42-5	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	250	U	250	U	500	U	500	U	250	U	100	U	50	U	200	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Tetrachloroethene	SW8260	127-18-4	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	500	U	500	U	1000	U	1000	U	500	U	200	U	100	U	400	U
Toluene	SW8260	108-88-3	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	50	U	50	U	100	U	100	U	50	U	22		15		280	
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	20	U	20	U	40	U	40	U	20	U	8	U	4	U	16	U
Trichloroethene	SW8260	79-01-6	ug/L	3500		1100		4900		2100		3900		1400		520		1200	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	50	U	50	U	100	U	100	U	50	U	20	U	10	U	40	U
Vinyl Chloride	SW8260	75-01-4	ug/L	50	U	50	U	100	U	100	U	58		21		10	U	40	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	OSW-2B		OSW-2B		OSW-2B		OSW-2B		OSW-2B		OSW-2B		OSW-2B		OSW-3A	
			Sample Date	4/12/2018		10/16/2018		3/28/2019		9/26/2019		3/30/2020		10/1/2020		4/8/2021		9/13/2017	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C041218-OSW2B		C101618-OSW2B		C032819-OSW2B		C092619-OSW2B		C033020-OSW2B		C100120-OSW2B		CO40821-OSW2B		C091317-OSW3A	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	20	U	10	U	4	U	4	U	5	U	63	U	10	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	200	U	100	U	40	U	40	U	50	U	630	U	100	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	2000	U	2000	U	400	U	400	U	500	U	6300	U	1000	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	400	U	500	U	80	U	80	U	100	U	1300	U	200	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	400	U	100	U	80	U	80	U	100	U	1300	U	200	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	400	U	100	U	80	U	80	U	100	U	1300	U	200	U	10	U
Acetone	SW8260	67-64-1	ug/L	2000	U	250	U	400	U	400	U	500	U	6300	U	1000	U	50	U
Benzene	SW8260	71-43-2	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	20	U	10	U	4	U	4	U	5	U	63	U	10	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	80	U	10	U	16	U	16	U	20	U	250	U	40	UJ	2	U
Butylbenzene	SW8260	104-51-8	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	400	U	10	U	80	U	80	U	100	U	1300	U	200	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	80	U	10	U	16	U	16	U	20	U	250	U	40	UJ	2	U
Chloroform	SW8260	67-66-3	ug/L	40	U	10	U	8	U	8	U	10	U	130	U	20	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	80	U	10	U	16	U	16	U	20	U	250	U	40	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	110		230		7	J	800		27		260		64		1.8	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	16	U	10	U	3.2	U	3.2	U	4	U	50	U	8	U	0.4	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location	OSW-2B		OSW-2B		OSW-2B		OSW-2B		OSW-2B		OSW-2B		OSW-2B		OSW-3A	
				Sample Date	4/12/2018		10/16/2018		3/28/2019		9/26/2019		3/30/2020		10/1/2020		4/8/2021		9/13/2017	
				Media	GW		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID	C041218-OSW2B		C101618-OSW2B		C032819-OSW2B		C092619-OSW2B		C033020-OSW2B		C100120-OSW2B		CO40821-OSW2B		C091317-OSW3A	
				QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	400	U		20	U	80	U									10	U
Dibromochloromethane	SW8260	124-48-1	ug/L	20	U		10	U	4	U	4	U	5	U	63	U	10	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	40	U		10	U	8	U	8	U	10	U	130	U	20	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	40	U		10	U	8	U	8	U	10	U	130	U	20	U	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	40	U		50	U	8	U	8	U	10	U	130	U	20	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	200	U		10	U	40	U	40	U	50	U	630	U	100	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	40	U		10	U	8	U	8	U	10	U	130	U	20	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	16	U		20	U	3.2	U	3.2	U	4	U	50	U	8	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L								80	U	100	U	1300	U	200	U		
Isopropylbenzene	SW8260	98-82-8	ug/L	40	U		10	U	8	U	8	U	10	U	130	U	20	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	80	U		20	U	16	U	16	U	20	U	250	U	40	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	40	U		10	U	8	U	8	U	10	U	130	U	20	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	40	U		50	U	8	U	8	U	10	U	68	J	20	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	40	U		10	U	8	U	8	U	10	U	130	U	20	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	200	U		50	U	40	U	40	U	50	U	630	U	100	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	40	U		10	U	8	U	8	U	10	U	130	U	20	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	40	U		10	U	8	U	8	U	10	U	130	U	20	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	40	U		10	U	8	U	8	U	10	U	130	U	20	U	1	U
Styrene	SW8260	100-42-5	ug/L	40	U		10	U	8	U	8	U	10	U	130	U	20	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	200	U		10	U	40	U	40	U	50	U	630	U	100	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	40	U		10	U	8	U	8	U	10	U	130	U	20	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	40	U		10	U	8	U	8	U	10	U	130	U	20	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	400	U		100	U	80	U	80	U	100	U	1300	U	200	U	10	U
Toluene	SW8260	108-88-3	ug/L	40	U		10	U	8	U	11		10	U	130	U	20	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	43			180		11		1100		36		1100		62		1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	16	U		10	U	3.2	U	3.2	U	4	U	50	U	8	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	1800			3000		150		9300		830		2800		1200		29	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	40	U		10	U	8	U	8	U	10	U	130	U	20	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	40	U		50		8	U	190		10	U	130	U	18	J	1	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	OSW-3A		OSW-3A		OSW-3A		OSW-3A		OSW-3A		OSW-3A		OSW-3A		OSW-3B	
			Sample Date	4/12/2018		10/15/2018		10/15/2018		3/27/2019		9/25/2019		3/31/2020		4/7/2021		9/14/2017	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C041218-OSW3A		C101518-OSW3A		C101518-OSW3A DUP		C032719-OSW3A		C092519-OSW3 A		C033120 - OSW3A		C040721-OSW3A		C091417-OSW3B	
			QC Code	REG		REG		FD		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	50	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
1,4-Dioxane	SW8260	123-91-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	500	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
2-Butanone	SW8260	78-93-3	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	100	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	100	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	100	U
Acetone	SW8260	67-64-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	500	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Bromodichloromethane	SW8260	75-27-4	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	5	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Bromomethane	SW8260	74-83-9	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	20	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Carbon Disulfide	SW8260	75-15-0	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	100	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Chloroethane	SW8260	75-00-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	20	U
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Chloromethane	SW8260	74-87-3	ug/L	2	U	2	U	2	UJ	2	U	2	U	2	U	2	U	20	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	1.7		3.2		3.5		1.3		13		1.7		0.84	J	130	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	4	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	OSW-3A		OSW-3A		OSW-3A		OSW-3A		OSW-3A		OSW-3A		OSW-3A		OSW-3B	
			Sample Date	4/12/2018		10/15/2018		10/15/2018		3/27/2019		9/25/2019		3/31/2020		4/7/2021		9/14/2017	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C041218-OSW3A		C101518-OSW3A		C101518-OSW3A DUP		C032719-OSW3A		C092519-OSW3 A		C033120 - OSW3A		C040721-OSW3A		C091417-OSW3B	
			QC Code	REG		REG		FD		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	10	U	10	U	10	U	10	U							100	U
Dibromochloromethane	SW8260	124-48-1	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	5	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	U	1	UJ	1	U	1	U	1	U	1	U	10	U
Diethyl Ether	SW8260	60-29-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	50	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	4	U
Isopropyl Ether	SW8260	180-20-3	ug/L									10	U	10	U	10	U		
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	20	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Methylene Chloride	SW8260	75-09-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	50	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	50	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	100	U
Toluene	SW8260	108-88-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	4	U
Trichloroethene	SW8260	79-01-6	ug/L	32		56		62		15		91		30		20		270	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	10	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	12	

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	OSW-3B		OSW-3B		OSW-3B		OSW-3B		OSW-3B		OSW-3B		OSW-3B		OSW-4I	
			Sample Date	4/12/2018		10/16/2018		3/29/2019		9/25/2019		4/2/2020		10/1/2020		4/7/2021		9/12/2017	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C041218-OSW3B		C101618-OSW3B		C032919-OSW3B		C092519-OSW3 B		C040220-OSW 3B		C100120-OSW3B		C040721-OSW3B		C091217-OSW4I	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	2	U	1	U	1	U	1	U	1	U	1	U	1	U	4	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	5.2	J
1,1-Dichloropropene	SW8260	563-58-6	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	20	U	10	U	10	U	10	U	10	U	10	U	10	U	40	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
1,4-Dioxane	SW8260	123-91-1	ug/L	200	U	200	U	100	U	100	U	100	U	100	U	100	U	400	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
2-Butanone	SW8260	78-93-3	ug/L	40	U	50	U	20	U	20	U	20	U	20	U	20	U	80	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
2-Hexanone	SW8260	591-78-6	ug/L	40	U	10	U	20	U	20	U	20	U	20	U	20	U	80	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	40	U	10	U	20	U	20	U	20	U	20	U	20	U	80	U
Acetone	SW8260	67-64-1	ug/L	200	U	25	U	100	U	100	U	100	U	100	U	100	U	400	U
Benzene	SW8260	71-43-2	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Bromobenzene	SW8260	108-86-1	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Bromochloromethane	SW8260	74-97-5	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Bromodichloromethane	SW8260	75-27-4	ug/L	2	U	1	U	1	U	1	U	1	U	1	U	1	U	4	U
Bromoform	SW8260	75-25-2	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Bromomethane	SW8260	74-83-9	ug/L	8	U	1	U	4	U	4	U	4	U	4	U	4	U	16	U
Butylbenzene	SW8260	104-51-8	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Carbon Disulfide	SW8260	75-15-0	ug/L	40	U	1	U	20	U	20	U	20	U	20	U	20	U	80	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Chlorobenzene	SW8260	108-90-7	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Chloroethane	SW8260	75-00-3	ug/L	8	U	1	U	4	U	4	U	4	U	4	U	4	U	16	U
Chloroform	SW8260	67-66-3	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Chloromethane	SW8260	74-87-3	ug/L	8	U	1	U	4	U	4	U	4	U	4	U	4	U	16	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	120		43		94		66		59		55		100		130	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	1.6	U	1	U	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	3.2	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location	OSW-3B		OSW-3B		OSW-3B		OSW-3B		OSW-3B		OSW-3B		OSW-3B		OSW-4I	
				Sample Date	4/12/2018		10/16/2018		3/29/2019		9/25/2019		4/2/2020		10/1/2020		4/7/2021		9/12/2017	
				Media	GW		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID	C041218-OSW3B		C101618-OSW3B		C032919-OSW3B		C092519-OSW3 B		C040220-OSW 3B		C100120-OSW3B		C040721-OSW3B		C091217-OSW4I	
				QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	40	U	2	U	20	U									80	U
Dibromochloromethane	SW8260	124-48-1	ug/L	2	U	1	U	1	U	1	U	1	U	1	U	1	U	4	U
Dibromomethane	SW8260	74-95-3	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Diethyl Ether	SW8260	60-29-7	ug/L	4	U	5	U	2	U	2	U	2	U	2	U	2	U	8	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	20	U	1	U	10	U	10	U	10	U	10	U	10	U	40	U
Ethylbenzene	SW8260	100-41-4	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	1.6	U	2	U	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	3.2	U
Isopropyl Ether	SW8260	180-20-3	ug/L							20	U	20	U	20	U	20	U		
Isopropylbenzene	SW8260	98-82-8	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
m&p-Xylenes	SW8260	NA	ug/L	8	U	2	U	4	U	4	U	4	U	4	U	4	U	16	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Methylene Chloride	SW8260	75-09-2	ug/L	4	U	5	U	2	U	2	U	0.9	J	1.1	J	2	U	8	U
n-Propylbenzene	SW8260	103-65-1	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Naphthalene	SW8260	91-20-3	ug/L	20	U	5	U	10	U	10	U	10	U	10	U	10	U	40	U
o-Xylene	SW8260	95-47-6	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Styrene	SW8260	100-42-5	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	20	U	1	U	10	U	10	U	10	U	10	U	10	U	40	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Tetrachloroethene	SW8260	127-18-4	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	40	U	10	U	20	U	20	U	20	U	20	U	20	U	80	U
Toluene	SW8260	108-88-3	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	4	U	0.29	J	2	U	2	U	2	U	2	U	2	U	8	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	1.6	U	1	U	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	3.2	U
Trichloroethene	SW8260	79-01-6	ug/L	160		77		35		40		37		39		92		390	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	4	U	1	U	2	U	2	U	2	U	2	U	2	U	8	U
Vinyl Chloride	SW8260	75-01-4	ug/L	4	U	1.6		2	U	2	U	2	U	2	U	2	U	8	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	OSW-4I		OSW-4I		OSW-4I		OSW-4I		OSW-4I		OSW-4I		OSW-4I		OSW-7A	
			Sample Date	4/11/2018		10/9/2018		3/28/2019		9/24/2019		3/31/2020		10/1/2020		4/8/2021		9/12/2017	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C041118-OSW4I		C100918-OSW4I		C032819-OSW4I		C092419-OSW4I		C033120 - OSW4I		C100120-OSW4I		CO40821-OSW41		C091217-OSW7	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	4	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	3	J	1.3	J	0.63	J	0.37	J	0.92	J	0.73	J	1.3		10	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	40	U	10	U	5	U	5	U	5	U	5	U	5	U	50	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
1,4-Dioxane	SW8260	123-91-1	ug/L	400	U	100	U	50	U	50	U	50	U	50	U	50	U	500	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
2-Butanone	SW8260	78-93-3	ug/L	80	U	20	U	10	U	10	U	10	U	10	U	10	U	100	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
2-Hexanone	SW8260	591-78-6	ug/L	80	U	20	U	10	U	10	U	10	U	10	U	10	U	100	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	80	U	20	U	10	U	10	U	10	U	10	U	10	U	100	U
Acetone	SW8260	67-64-1	ug/L	400	U	100	U	50	U	50	U	50	U	50	U	50	U	500	U
Benzene	SW8260	71-43-2	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Bromobenzene	SW8260	108-86-1	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Bromochloromethane	SW8260	74-97-5	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Bromodichloromethane	SW8260	75-27-4	ug/L	4	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	5	U
Bromoform	SW8260	75-25-2	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Bromomethane	SW8260	74-83-9	ug/L	16	U	4	U	2	U	2	U	2	U	2	U	2	UJ	20	U
Butylbenzene	SW8260	104-51-8	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Carbon Disulfide	SW8260	75-15-0	ug/L	80	U	20	U	10	U	10	U	10	U	10	U	10	U	100	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Chlorobenzene	SW8260	108-90-7	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Chloroethane	SW8260	75-00-3	ug/L	16	U	4	U	2	U	2	U	2	U	2	U	2	UJ	20	U
Chloroform	SW8260	67-66-3	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Chloromethane	SW8260	74-87-3	ug/L	16	U	4	U	2	U	2	U	2	U	2	U	2	U	20	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	110		47		30		21		38		35		64		34	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	3.2	U	0.8	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	4	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	OSW-4I		OSW-4I		OSW-4I		OSW-4I		OSW-4I		OSW-4I		OSW-4I		OSW-7A	
			Sample Date	4/11/2018		10/9/2018		3/28/2019		9/24/2019		3/31/2020		10/1/2020		4/8/2021		9/12/2017	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C041118-OSW4I		C100918-OSW4I		C032819-OSW4I		C092419-OSW4I		C033120 - OSW4I		C100120-OSW4I		CO40821-OSW41		C091217-OSW7	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	80	U	20	U	10	U									100	U
Dibromochloromethane	SW8260	124-48-1	ug/L	4	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	5	U
Dibromomethane	SW8260	74-95-3	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	8	U	2	U	1	U	1	UJ	1	U	1	U	1	U	10	UJ
Diethyl Ether	SW8260	60-29-7	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	40	U	10	U	5	U	5	U	5	U	5	U	5	U	50	U
Ethylbenzene	SW8260	100-41-4	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	3.2	U	0.8	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	4	U
Isopropyl Ether	SW8260	180-20-3	ug/L							10	U	10	U	10	U	10	U		
Isopropylbenzene	SW8260	98-82-8	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
m&p-Xylenes	SW8260	NA	ug/L	16	U	4	U	2	U	2	U	2	U	2	U	2	U	20	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Methylene Chloride	SW8260	75-09-2	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
n-Propylbenzene	SW8260	103-65-1	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Naphthalene	SW8260	91-20-3	ug/L	40	U	10	U	5	U	5	U	5	U	5	U	5	U	50	U
o-Xylene	SW8260	95-47-6	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Styrene	SW8260	100-42-5	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	40	U	10	U	5	U	5	U	5	U	5	U	5	U	50	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Tetrachloroethene	SW8260	127-18-4	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	80	U	20	U	10	U	10	U	10	U	10	U	10	U	100	U
Toluene	SW8260	108-88-3	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	3.2	U	0.8	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	4	U
Trichloroethene	SW8260	79-01-6	ug/L	270		90		50		32		110		96		170		240	J
Trichlorofluoromethane	SW8260	75-69-4	ug/L	8	U	2	U	1	U	1	U	1	U	1	U	1	U	10	U
Vinyl Chloride	SW8260	75-01-4	ug/L	9.4		7.2		3.4		2.7		2.6		3.3		5.2		10	UJ

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	OSW-7A		OSW-7A		OSW-7A		OSW-7A		OSW-7A		OSW-7A		OSW-7A		OSW-7A	
			Sample Date	9/12/2017		4/9/2018		10/9/2018		3/27/2019		9/23/2019		9/23/2019		3/30/2020		9/28/2020	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C091217-OSW7DUP		C040918-OSW7A		C100918-OSW7A		C032719-OSW7		C092319-OSW7DUP		C092319-OSW7		C033020-OSW7		C092820-OSW7A	
			QC Code	FD		REG		REG		REG		FD		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	10	U	1	U	2	U	1	U	0.34	J	1	U	1	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	50	U	5	U	10	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	500	U	50	U	100	U	50	U	50	U	50	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	100	U	10	U	20	U	10	U	10	U	10	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	100	U	10	U	20	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	100	U	10	U	20	U	10	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	500	U	50	U	100	U	50	U	50	U	50	U	50	U	50	U
Benzene	SW8260	71-43-2	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	20	U	2	U	4	U	2	U	2	U	2	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	100	U	10	U	20	U	10	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	20	U	2	U	4	U	2	U	2	U	2	U	2	U	2	U
Chloroform	SW8260	67-66-3	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	20	U	2	U	4	U	2	U	2	U	2	U	2	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	33		4		23		2.4		27		29		2.3		1	U
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	4	U	0.4	U	0.8	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	OSW-7A		OSW-7A		OSW-7A		OSW-7A		OSW-7A		OSW-7A		OSW-7A		OSW-7A	
			Sample Date	9/12/2017		4/9/2018		10/9/2018		3/27/2019		9/23/2019		9/23/2019		3/30/2020		9/28/2020	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C091217-OSW7DUP		C040918-OSW7A		C100918-OSW7A		C032719-OSW7		C092319-OSW7DUP		C092319-OSW7		C033020-OSW7		C092820-OSW7A	
			QC Code	FD		REG		REG		REG		FD		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L	100	U	10	U	20	U	10	U								
Dibromochloromethane	SW8260	124-48-1	ug/L	5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	10	UJ	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	50	U	5	U	10	U	5	U	5	U	5	U	5	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	4	U	0.4	U	0.8	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L									10	U	10	U	10	U	10	U
Isopropylbenzene	SW8260	98-82-8	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	20	U	2	U	4	U	2	U	2	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	50	U	5	U	10	U	5	U	5	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	50	U	5	U	10	U	5	U	5	U	5	U	5	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	100	U	10	U	20	U	10	U	10	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	4	U	0.4	U	0.8	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	230	J	19		97		13		200		210		17		6.4	J+
Trichlorofluoromethane	SW8260	75-69-4	ug/L	10	U	1	U	2	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	10	UJ	1	U	2	U	1	U	1	U	1	U	1	U	1	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	OSW-7A		OSW-7A		OSW-8A		PP-2		PP-2		PP-2		PP-2		PP-2	
			Sample Date	9/28/2020		4/5/2021		3/27/2019		9/13/2017		4/11/2018		10/15/2018		3/29/2019		9/24/2019	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C092820-OSW7A DUP		C040521-OSW7		C032719-OSW8		C091317-PP2		C041118-PP2		C101518-PP2		C032919-PP2		C092419-PP2	
			QC Code	FD		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	0.5	U	0.5	U	0.5	U	5	U	2	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	U	1	U	8.8	J	1.3	J	0.82	J	0.45	J	0.38	J
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	5	U	5	U	5	U	50	U	20	U	5	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	50	U	50	U	50	U	500	U	200	U	50	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	10	U	10	U	10	U	100	U	40	U	10	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	100	U	40	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	100	U	40	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	50	U	50	U	50	U	500	U	200	U	50	U	3	J	50	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	0.5	U	0.5	U	0.5	U	5	U	2	U	0.5	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	2	U	2	U	2	U	20	U	8	U	2	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	10	U	10	U	10	U	100	U	40	U	10	U	10	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	2	U	2	U	2	U	20	U	8	U	2	U	2	U	0.48	J
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	2	U	2	U	2	U	20	U	8	U	2	U	2	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	1	U	1.3		8.2		210		53		30		19		18	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.4	U	0.4	U	0.4	U	4	U	1.6	U	0.4	U	0.4	U	0.4	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	OSW-7A		OSW-7A		OSW-8A		PP-2		PP-2		PP-2		PP-2		PP-2	
			Sample Date	9/28/2020		4/5/2021		3/27/2019		9/13/2017		4/11/2018		10/15/2018		3/29/2019		9/24/2019	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C092820-OSW7A DUP		C040521-OSW7		C032719-OSW8		C091317-PP2		C041118-PP2		C101518-PP2		C032919-PP2		C092419-PP2	
			QC Code	FD		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L					10	U	100	U	40	U	10	U	10	U		
Dibromochloromethane	SW8260	124-48-1	ug/L	0.5	U	0.5	U	0.5	U	5	U	2	U	0.5	U	0.5	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	U	1	U	10	UJ	4	U	1	U	1	U	1	UJ
Diethyl Ether	SW8260	60-29-7	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	5	U	5	U	5	U	50	U	20	U	5	U	5	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.4	U	0.4	U	0.4	U	4	U	1.6	U	0.4	U	0.4	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L	10	U	10	U											10	U
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	2	U	20	U	8	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	50	U	20	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	5	U	5	U	5	U	50	U	20	U	5	U	5	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	100	U	40	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.4	U	0.4	U	0.4	U	4	U	1.6	U	0.4	U	0.4	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	6.5	J+	13		16		360		110		55		37		3.4	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	10	U	4	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	31		5.6		11		7.2		11	

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	PP-2		PP-2		PP-2		PP-3		PP-3		PP-3		PP-3		PP-3	
			Sample Date	4/1/2020		10/2/2020		4/6/2021		9/13/2017		4/12/2018		10/16/2018		3/28/2019		9/24/2019	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C040120-PP2		C100220-PP2		C040621-PP2		C091317-PP3		C041218-PP3		C101618-PP3		C032819-PP3		C092419-PP3	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	0.5	U	1	U	1	U	5	U	2.5	U	1	U	2	U	2	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	0.5	J	1.4	J	0.65	J	3.9	J	5	U	1.2		4	U	4	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	5	U	10	U	10	U	50	U	25	U	10	U	20	U	20	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
1,4-Dioxane	SW8260	123-91-1	ug/L	50	U	100	U	100	U	500	U	250	U	200	U	200	U	200	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
2-Butanone	SW8260	78-93-3	ug/L	10	U	20	U	20	U	100	U	50	U	50	U	40	U	40	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	20	U	20	U	100	U	50	U	10	U	40	U	40	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	20	U	20	U	100	U	50	U	10	U	40	U	40	U
Acetone	SW8260	67-64-1	ug/L	50	U	100	U	100	U	500	U	250	U	25	U	200	U	200	U
Benzene	SW8260	71-43-2	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
Bromodichloromethane	SW8260	75-27-4	ug/L	0.5	U	1	U	1	U	5	U	2.5	U	1	U	2	U	2	U
Bromoform	SW8260	75-25-2	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
Bromomethane	SW8260	74-83-9	ug/L	2	U	4	U	4	U	20	U	10	U	1	U	8	U	8	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
Carbon Disulfide	SW8260	75-15-0	ug/L	10	U	20	U	20	U	100	U	50	U	1	U	40	U	40	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
Chloroethane	SW8260	75-00-3	ug/L	2	U	4	U	4	U	20	U	10	U	1	U	8	U	8	U
Chloroform	SW8260	67-66-3	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
Chloromethane	SW8260	74-87-3	ug/L	2	U	4	U	4	U	20	U	10	U	1	U	8	U	8	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	19		76		30		920		24		520		15		360	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.4	U	0.8	U	0.8	U	4	U	2	U	1	U	1.6	U	1.6	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	PP-2		PP-2		PP-2		PP-3		PP-3		PP-3		PP-3		PP-3	
			Sample Date	4/1/2020		10/2/2020		4/6/2021		9/13/2017		4/12/2018		10/16/2018		3/28/2019		9/24/2019	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C040120-PP2		C100220-PP2		C040621-PP2		C091317-PP3		C041218-PP3		C101618-PP3		C032819-PP3		C092419-PP3	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L							100	U	50	U	2	U	40	U		
Dibromochloromethane	SW8260	124-48-1	ug/L	0.5	U	1	U	1	U	5	U	2.5	U	1	U	2	U	2	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	2	U	2	U	10	UJ	5	U	1	U	4	U	4	U
Diethyl Ether	SW8260	60-29-7	ug/L	1	U	2	U	2	U	10	U	5	U	5	U	4	U	4	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	5	U	10	U	10	U	50	U	25	U	1	U	20	U	20	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.4	U	0.8	U	0.8	U	4	U	2	U	2	U	1.6	U	1.6	U
Isopropyl Ether	SW8260	180-20-3	ug/L	10	U	20	U	20	U									40	U
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	4	U	4	U	20	U	10	U	2	U	8	U	8	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
Methylene Chloride	SW8260	75-09-2	ug/L	1	U	2	U	2	U	10	U	5	U	5	U	4	U	2.5	J
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	10	U	10	U	50	U	25	U	5	U	20	U	20	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
Styrene	SW8260	100-42-5	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	5	U	10	U	10	U	50	U	25	U	1	U	20	U	20	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	2	U	2	U	5.5	J	5	U	2.4		4	U	2.4	J
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	20	U	20	U	100	U	50	U	10	U	40	U	40	U
Toluene	SW8260	108-88-3	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	2	U	2	U	10	U	5	U	4.2		4	U	4.2	
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.4	U	0.8	U	0.8	U	4	U	2	U	1	U	1.6	U	1.6	U
Trichloroethene	SW8260	79-01-6	ug/L	34		61		50		5500		260		3400		190		2600	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	2	U	2	U	10	U	5	U	1	U	4	U	4	U
Vinyl Chloride	SW8260	75-01-4	ug/L	4.2		9.5		4.3		230		5	U	120		4	U	73	

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	PP-3		PP-3		PP-3A		PP-3A		PP-4A		PP-4A		PP-4A		PP-4A	
			Sample Date	4/1/2020		4/6/2021		10/1/2020		10/1/2020		9/15/2017		4/12/2018		10/17/2018		3/28/2019	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C040120-PP3		C040621-PP3		C100120-PP3A		C100120-PP3A DUP		C0901517-PP4A		C041218-PP4A		C101718-PP4A		C032819-PP4A	
			QC Code	REG		REG		REG		FD		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	1	U	2	U	1	U	1	U	2	U	0.5	U	1	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	2	U	4	U	2.8		2.4		4	U	1	U	1	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	10	U	20	U	10	U	10	U	20	U	5	U	10	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	100	U	200	U	100	U	100	U	200	U	50	U	200	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	20	U	40	U	20	U	20	U	40	U	10	U	50	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	20	U	40	U	20	U	20	U	40	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	20	U	40	U	20	U	20	U	40	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	100	U	200	U	100	U	100	U	200	U	50	U	25	U	50	U
Benzene	SW8260	71-43-2	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	1	U	2	U	1	U	1	U	2	U	0.5	U	1	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	4	U	8	U	4	U	4	U	8	U	2	U	1	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	20	U	40	U	20	U	20	U	40	U	10	U	1	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	4	U	8	U	4	U	4	U	8	U	2	U	1	U	2	U
Chloroform	SW8260	67-66-3	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	4	U	8	U	4	U	4	U	8	U	2	U	1	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	11		58		1100		1500		14		4.5		2.3		4.2	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.8	U	1.6	U	0.8	U	0.8	U	1.6	U	0.4	U	1	U	0.4	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	PP-3		PP-3		PP-3A		PP-3A		PP-4A		PP-4A		PP-4A		PP-4A	
			Sample Date	4/1/2020		4/6/2021		10/1/2020		10/1/2020		9/15/2017		4/12/2018		10/17/2018		3/28/2019	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C040120-PP3		C040621-PP3		C100120-PP3A		C100120-PP3A DUP		C0901517-PP4A		C041218-PP4A		C101718-PP4A		C032819-PP4A	
			QC Code	REG		REG		REG		FD		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L									40	U	10	U	2	U	10	U
Dibromochloromethane	SW8260	124-48-1	ug/L	1	U	2	U	1	U	1	U	2	U	0.5	U	1	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	5	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	10	U	20	U	10	U	10	U	20	U	5	U	1	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.8	U	1.6	U	0.8	U	0.8	U	1.6	U	0.4	U	2	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L	20	U	40	U	20	U	20	U								
Isopropylbenzene	SW8260	98-82-8	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	4	U	8	U	4	U	4	U	8	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	2	U	4	U	1	J	1.1	J	4	U	1	U	5	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	10	U	20	U	10	U	10	U	20	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	10	U	20	U	10	U	10	U	20	U	5	U	1	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	2	U	4	U	2.6		2.5		4	U	1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	20	U	40	U	20	U	20	U	40	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	2	U	4	U	11		9.7		4	U	1	U	0.28	J	1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.8	U	1.6	U	0.8	U	0.8	U	1.6	U	0.4	U	1	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	120		370		5600		6300		130		47		26		50	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	2	U	4	U	2	U	2	U	4	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	2	U	4.7		95	J	220		4	U	1	U	1	U	1	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	PP-4A		PP-4A		PP-4A		PP-4A		PP-4B		PP-4B		PP-4B		PP-4B	
			Sample Date	9/24/2019		4/1/2020		10/1/2020		4/8/2021		9/15/2017		4/12/2018		10/17/2018		3/28/2019	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C092419-PP4A		C040120-PP4A		C100120-PP4A		CO40821-PP4A		C0901517-PP4B		C041218-PP4B		C101718-PP4B		C032819-PP4B	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	10	U	10	U	1	U	2.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	0.31	J	5	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	5	U	5	U	5	U	5	U	100	U	100	U	10	U	25	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
1,4-Dioxane	SW8260	123-91-1	ug/L	50	U	50	U	50	U	50	U	1000	U	1000	U	200	U	250	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
2-Butanone	SW8260	78-93-3	ug/L	10	U	10	U	10	U	10	U	200	U	200	U	50	U	50	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	200	U	200	U	10	U	50	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	200	U	200	U	10	U	50	U
Acetone	SW8260	67-64-1	ug/L	50	U	50	U	50	U	50	U	1000	U	1000	U	25	U	250	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Bromodichloromethane	SW8260	75-27-4	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	10	U	10	U	1	U	2.5	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Bromomethane	SW8260	74-83-9	ug/L	2	U	2	U	2	U	2	UJ	40	U	40	U	1	U	10	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Carbon Disulfide	SW8260	75-15-0	ug/L	10	U	10	U	10	U	10	U	200	U	200	U	1	U	50	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Chloroethane	SW8260	75-00-3	ug/L	2	U	2	U	2	U	2	UJ	40	U	40	U	1	U	10	U
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Chloromethane	SW8260	74-87-3	ug/L	2	U	2	U	2	U	2	U	40	U	40	U	1	U	10	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	2.5		5.6		5.9		14		500		360		280		240	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	8	U	8	U	1	U	2	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	PP-4A		PP-4A		PP-4A		PP-4A		PP-4B		PP-4B		PP-4B		PP-4B	
			Sample Date	9/24/2019		4/1/2020		10/1/2020		4/8/2021		9/15/2017		4/12/2018		10/17/2018		3/28/2019	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C092419-PP4A		C040120-PP4A		C100120-PP4A		CO40821-PP4A		C0901517-PP4B		C041218-PP4B		C101718-PP4B		C032819-PP4B	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L									200	U	200	U	2	U	50	U
Dibromochloromethane	SW8260	124-48-1	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	10	U	10	U	1	U	2.5	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	UJ	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Diethyl Ether	SW8260	60-29-7	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	5	U	5	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	5	U	5	U	5	U	5	U	100	U	100	U	1	U	25	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	8	U	8	U	2	U	2	U
Isopropyl Ether	SW8260	180-20-3	ug/L	10	U	10	U	10	U	10	U								
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	2	U	2	U	40	U	40	U	2	U	10	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Methylene Chloride	SW8260	75-09-2	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	5	U	5	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	5	U	100	U	100	U	5	U	25	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	5	U	5	U	5	U	5	U	100	U	100	U	1	U	25	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	10	U	200	U	200	U	10	U	50	U
Toluene	SW8260	108-88-3	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	U	1	U	1	U	24		20	U	12		11	
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	8	U	8	U	1	U	2	U
Trichloroethene	SW8260	79-01-6	ug/L	18		72		55		170		740		440		250		250	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1	U	5	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	1	U	20	U	20	U	1.1		5	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		PP-4B		PP-4B		PP-4B		PP-4B	
				Sample Date		9/24/2019		4/1/2020		10/1/2020		4/6/2021	
				Media		GW		GW		GW		GW	
				Field Sample ID		C092419-PP4B		C040120-PP4B		C100120-PP4B		C040621-PP4B	
				QC Code		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	5	U	5	U	5	U	5	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	5	U	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	2.5	U	2.5	U	2.5	U	2.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	5	U	5	U	5	U	5	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	5	U	5	U	5	U	5	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	5	U	5	U	5	U	5	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	5	U	5	U	5	U	5	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	5	U	5	U	5	U	5	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	5	U	5	U	5	U	5	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	5	U	5	U	5	U	5	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	5	U	5	U	5	U	5	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	25	U	25	U	25	U	25	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	5	U	5	U	5	U	5	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	5	U	5	U	5	U	5	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	5	U	5	U	5	U	5	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	5	U	5	U	5	U	5	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	5	U	5	U	5	U	5	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	5	U	5	U	5	U	5	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	5	U	5	U	5	U	5	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	5	U	5	U	5	U	5	U
1,4-Dioxane	SW8260	123-91-1	ug/L	250	U	250	U	250	U	250	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	5	U	5	U	5	U	5	U
2-Butanone	SW8260	78-93-3	ug/L	50	U	50	U	50	U	50	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	5	U	5	U	5	U	5	U
2-Hexanone	SW8260	591-78-6	ug/L	50	U	50	U	50	U	50	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	5	U	5	U	5	U	5	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	50	U	50	U	50	U	50	U
Acetone	SW8260	67-64-1	ug/L	250	U	250	U	250	U	250	U
Benzene	SW8260	71-43-2	ug/L	5	U	5	U	5	U	5	U
Bromobenzene	SW8260	108-86-1	ug/L	5	U	5	U	5	U	5	U
Bromochloromethane	SW8260	74-97-5	ug/L	5	U	5	U	5	U	5	U
Bromodichloromethane	SW8260	75-27-4	ug/L	2.5	U	2.5	U	2.5	U	2.5	U
Bromoform	SW8260	75-25-2	ug/L	5	U	5	U	5	U	5	U
Bromomethane	SW8260	74-83-9	ug/L	10	U	10	U	10	U	10	U
Butylbenzene	SW8260	104-51-8	ug/L	5	U	5	U	5	U	5	U
Carbon Disulfide	SW8260	75-15-0	ug/L	50	U	50	U	50	U	50	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	5	U	5	U	5	U	5	U
Chlorobenzene	SW8260	108-90-7	ug/L	5	U	5	U	5	U	5	U
Chloroethane	SW8260	75-00-3	ug/L	10	U	10	U	10	U	10	U
Chloroform	SW8260	67-66-3	ug/L	5	U	5	U	5	U	5	U
Chloromethane	SW8260	74-87-3	ug/L	10	U	10	U	10	U	10	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	250		220		230		150	
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	2	U	2	U	2	U	2	U

Table A-2
2017-2021 Groundwater Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	PP-4B		PP-4B		PP-4B		PP-4B	
			Sample Date	9/24/2019		4/1/2020		10/1/2020		4/6/2021	
			Media	GW		GW		GW		GW	
			Field Sample ID	C092419-PP4B		C040120-PP4B		C100120-PP4B		C040621-PP4B	
			QC Code	REG		REG		REG		REG	
			Filtered Flag	T		T		T		T	
Parameter	Method	CASRN	Units	Result	Q	Result	Q	Result	Q	Result	Q
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L								
Dibromochloromethane	SW8260	124-48-1	ug/L	2.5	U	2.5	U	2.5	U	2.5	U
Dibromomethane	SW8260	74-95-3	ug/L	5	U	5	U	5	U	5	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	5	UJ	5	U	5	U	5	U
Diethyl Ether	SW8260	60-29-7	ug/L	5	U	5	U	5	U	5	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	25	U	25	U	25	U	25	U
Ethylbenzene	SW8260	100-41-4	ug/L	5	U	5	U	5	U	5	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	2	U	2	U	2	U	2	U
Isopropyl Ether	SW8260	180-20-3	ug/L	50	U	50	U	50	U	50	U
Isopropylbenzene	SW8260	98-82-8	ug/L	5	U	5	U	5	U	5	U
m&p-Xylenes	SW8260	NA	ug/L	10	U	10	U	10	U	10	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	5	U	5	U	5	U	5	U
Methylene Chloride	SW8260	75-09-2	ug/L	5	U	5	U	3.6	J	5	U
n-Propylbenzene	SW8260	103-65-1	ug/L	5	U	5	U	5	U	5	U
Naphthalene	SW8260	91-20-3	ug/L	25	U	25	U	25	U	25	U
o-Xylene	SW8260	95-47-6	ug/L	5	U	5	U	5	U	5	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	5	U	5	U	5	U	5	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	5	U	5	U	5	U	5	U
Styrene	SW8260	100-42-5	ug/L	5	U	5	U	5	U	5	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	25	U	25	U	25	U	25	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	5	U	5	U	5	U	5	U
Tetrachloroethene	SW8260	127-18-4	ug/L	5	U	5	U	5	U	5	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	50	U	50	U	50	U	50	U
Toluene	SW8260	108-88-3	ug/L	5	U	5	U	5	U	5	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	12		10		12		9.3	
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	2	U	2	U	2	U	2	U
Trichloroethene	SW8260	79-01-6	ug/L	260		260		280		190	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	5	U	5	U	5	U	5	U
Vinyl Chloride	SW8260	75-01-4	ug/L	5	U	5	U	5	U	5	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location	CIW-1B		CIW-1B		CIW-1B		CIW-1B		CIW-1B		CIW-1B		CIW-1B	
				Sample Date	9/15/2017		4/11/2018		10/10/2018		3/29/2019		3/29/2019		9/26/2019		4/1/2020	
				Media	GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID	C0901517-CIW1B		C041118-CIW1B		C101018-CIW1B		C032919-CIW1B		C032919-CIW1B		C092619-CIW1B		C040120-CLW1B	
				QC Code	REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag	T		T		T		D		T		T		T	
Parameter	Method	CASNo	Units	Result	Q		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	470			990		1100		5	U	35		280		8.3	
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	U		10	U	50	U			10	U	10	UJ	10	U
Iron	SW6010	7439-89-6	ug/L															

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CIW-1B		CIW-1B		CLW-16B		CLW-16B		CLW-16B		CLW-16B		CLW-16B	
				Sample Date		10/1/2020		4/8/2021		9/14/2017		4/12/2018		4/12/2018		10/16/2018		3/29/2019	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C100120-CIW1B		CO40821-C1W1B		C091417-CLW16B		C041218-CLW16B		C041218-CLW16BDUP		C101618-CLW16B		C032919-CLW16B	
				QC Code		REG		REG		REG		REG		FD		REG		REG	
				Filtered Flag		T		T		T		T		T		T		D	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	51		24		40		18		19		12		5	U		
Hexavalent Chromium	SW7196	18540-29-9	ug/L	23		10	U	6.8	J	10	U	10	U	10	U				
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location													
				Sample Date													
				Media													
				Field Sample ID													
				QC Code													
				Filtered Flag													
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	5.2		6.1		8.5		7.8		5.7		56		41	
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	U	10	U	10	U	35		10	U	72		37	
Iron	SW6010	7439-89-6	ug/L														

				Location													
				Sample Date													
				Media													
				Field Sample ID													
				QC Code													
				Filtered Flag													
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	5.2		6.1		8.5		7.8		5.7		56		41	
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	U	10	U	10	U	35		10	U	72		37	
Iron	SW6010	7439-89-6	ug/L														

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CLW-17		CLW-17		CLW-17		CLW-17		CLW-17		CLW-17		CLW-17	
				Sample Date		10/17/2018		3/28/2019		3/28/2019		9/25/2019		4/1/2020		9/29/2020		4/7/2021	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C101718-CLW17		C032819-CLW17		C032819-CLW17		C092519-CLW17		C040120-CLW17		C092920 - CLW17		C040721-CLW17	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		D		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	50		19		18		41		21		44		23			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	48				16		43	J	19		33		16			
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CLW-17		CLW-17B		CLW-17B		CLW-17B		CLW-17B		CLW-17B		CLW-17B	
				Sample Date		4/7/2021		9/13/2017		4/11/2018		10/17/2018		3/28/2019		3/28/2019		9/25/2019	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C040721-CLW17DUP		C091317-CLW17B		C041118-CLW17B		C101718-CLW17B		C032819-CLW17B		C032819-CLW17B		C092519-CLW17 B	
				QC Code		FD		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T		D		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	23		9.1		17		17		7.5		7.8		6.9			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	7.3	J	13		16		19	J			10	U	6.6	J		
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CLW-17B		CLW-17B		CLW-17B		CLW-17B		CLW-19		CLW-19		CLW-19	
				Sample Date		4/2/2020		4/2/2020		9/29/2020		4/7/2021		9/12/2017		4/10/2018		10/16/2018	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C040220-CLW 17B		C040220-CLW 17B DUP		C092920 - CLW17B		C040721-CLW17B		C091217-CLW19		C041018-CLW19		C101618-CLW19	
				QC Code		REG		FD		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	6.2		6.5		5.5		6.4		24		14		23			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	U	10	U	10	U	10	U	30		10	U	19			
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CLW-19		CLW-19		CLW-19		CLW-19		CLW-19		CLW-19		CLW-19	
				Sample Date		3/28/2019		3/28/2019		9/24/2019		9/24/2019		3/31/2020		9/29/2020		4/8/2021	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C032819-CLW19		C032819-CLW19		C092419-CLW19 DUP		C092419-CLW19		C033120 - CLW19		C092920 - CLW19		CO40821-CLW19	
				QC Code		REG		REG		FD		REG		REG		REG		REG	
				Filtered Flag		D		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	9.6		10		22		21		12		23		17			
Hexavalent Chromium	SW7196	18540-29-9	ug/L			10	U	21	J	17	J	14		36		10	U		
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location	CLW-19B		CLW-19B		CLW-19B		CLW-19B		CLW-19B		CLW-19B		CLW-19B	
				Sample Date	9/12/2017		4/10/2018		4/10/2018		10/16/2018		3/28/2019		3/28/2019		9/24/2019	
				Media	GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID	C091217-CLW19B		C041018-CLW19B		C041018-CLW19B DUP		C101618-CLW19B		C032819-CLW19B		C032819-CLW19B		C092419-CLW19B	
				QC Code	REG		REG		FD		REG		REG		REG		REG	
				Filtered Flag	T		T		T		T		D		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	20		12		12		18		6.4		7.5		15	
Hexavalent Chromium	SW7196	18540-29-9	ug/L	16		10	U	10	U	13				10	U	23	J
Iron	SW6010	7439-89-6	ug/L														

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CLW-19B		CLW-19B		CLW-19B		CLW-20		CLW-20		CLW-20		CLW-20	
				Sample Date		3/31/2020		9/29/2020		4/6/2021		9/12/2017		4/10/2018		10/16/2018		10/16/2018	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C033120 - CLW19B		C092920 - CLW19B		C040621-CLW19B		C091217-CLW20		C041018-CLW20		C101618-CLW20		C101618-CLW20DUP	
				QC Code		REG		REG		REG		REG		REG		REG		FD	
				Filtered Flag		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	7.8		15		7.9		5	U	2.4	J	1.4	J	1.5	J		
Hexavalent Chromium	SW7196	18540-29-9	ug/L	7.8	J	10	U	53		10	U	10	U	10	U	6.3	J		
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CLW-20		CLW-20		CLW-20		CLW-20		CLW-20		CLW-20		CLW-20B	
				Sample Date		3/28/2019		3/28/2019		9/25/2019		4/2/2020		9/29/2020		4/6/2021		9/12/2017	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C032819-CLW20		C032819-CLW20		C092519-CLW20		C040220-CLW 20		C092920 - CLW20		C040621-CLW20		C091217-CLW20B	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		D		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	5	U	1.2	J	1.2	J	1.2	J	2.1	J	5	U	5	U		
Hexavalent Chromium	SW7196	18540-29-9	ug/L			10	U	6.6	J	6.8	J	7.6	J	10	U	10	U		
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CLW-20B		CLW-20B		CLW-20B		CLW-20B		CLW-20B		CLW-20B		CLW-20B	
				Sample Date		4/10/2018		10/16/2018		3/28/2019		3/28/2019		9/25/2019		4/2/2020		9/29/2020	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C041018-CLW20B		C101618-CLW20B		C032819-CLW20B		C032819-CLW20B		C092519-CLW20 B		C040220-CLW 20B		C092920 - CLW20B	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		D		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	U	10	U			10	U	10	U	10	U	10	U	10	U
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CLW-20B		CLW-22		CLW-22		CLW-22		CLW-22		CLW-22		CLW-22	
				Sample Date		4/6/2021		9/12/2017		4/11/2018		10/17/2018		3/28/2019		3/28/2019		9/24/2019	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C040621-CLW20B		C091217-CLW22		C041118-CLW22		C101718-CLW22		C032819-CLW22		C032819-CLW22		C092419-CLW22	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T		D		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	5	U	14		11		22		8.5		10		24			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	U	26		6.3	J	10	UJ			10	U	25			
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CLW-22		CLW-22		CLW-22		CLW-22B		CLW-22B		CLW-22B		CLW-22B	
				Sample Date		3/31/2020		9/29/2020		4/6/2021		9/13/2017		4/11/2018		10/17/2018		3/28/2019	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C033120 - CLW22		C092920 - CLW22		C040621-CLW22		C091317-CLW22B		C041118-CLW22B		C101718-CLW22B		C032819-CLW22B	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T		T		T		D	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	9.7		16		9.2		15		14		21		9.4			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	13		10	U	10	U	31		6.3	J	9.8	J				
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CLW-22B		CLW-22B		CLW-22B		CLW-22B		CLW-22B		CLW-5A		CLW-5A	
				Sample Date		3/28/2019		9/24/2019		3/31/2020		9/29/2020		4/6/2021		9/14/2017		4/10/2018	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C032819-CLW22B		C092419-CLW22B		C033120 - CLW22B		C092920 - CLW22B		C040621-CLW22B		C091417-CLW5A		C041018-CLW5A	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	10		16		8.7		16		15		82		96			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	6.5	J	40		21		10	U	10	U	53		91			
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location	CLW-5A		CLW-5A		OSW-5A		CLW-5A		OSW-5A		CLW-5A		CLW-5A	
				Sample Date	10/10/2018		3/27/2019		3/27/2019		3/27/2019		3/27/2019		3/30/2020		3/30/2020	
				Media	GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID	C101018-CLW5A		C032719-CCW5A		C032719-CCW5A-DUP		C032719-CCW5A		C032719-CCW5A-DUP		C033020-CLW5A		C033020-CLW5A DUP	
				QC Code	REG		REG		FD		REG		FD		REG		FD	
				Filtered Flag	T		D		D		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	
Chromium	SW6010	7440-47-3	ug/L	170		78		79		72		73		80		79		
Hexavalent Chromium	SW7196	18540-29-9	ug/L	160						66		71		73		79		
Iron	SW6010	7439-89-6	ug/L															

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CLW-5A		CLW-5A		CLW-5B		CLW-5B		CLW-5B		CLW-5B		CLW-5B	
				Sample Date		4/5/2021		4/5/2021		9/14/2017		4/10/2018		10/16/2018		3/27/2019		3/27/2019	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C040521-CLW5A DUP		C04521-CLW5A		C091417-CLW5B		C041018-CLW5B		C101618-CLW5B		C032719-CCW5B		C032719-CCW5B	
				QC Code		FD		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T		T		D		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	65		99		7		30		8.9		64		65			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	11		78		14		10	U	10	UJ			58			
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CLW-5B		CLW-5B		CLW-5B		CLW-5B		CLW-7A		CLW-7A		CLW-7A	
				Sample Date		9/27/2019		3/30/2020		9/30/2020		4/5/2021		6/10/2020		7/1/2020		7/8/2020	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C092719-CLW5B		C033020-CLW5B		C093020-CLW5B		C040521-CLW5B		C061020-CLW7A		C070120-CCW7A		C070820-CLW7A	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	16		79		9		97		5	U	1.1	J	3.9	J		
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	UJ	77		10	U	78		10	U	10	U	10	U		
Iron	SW6010	7439-89-6	ug/L									2200		1500		1900			

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location	CLW-7A		CLW-7A		CLW-7A		CLW-7A		CLW-7A		CLW-7A		CLW-8	
				Sample Date	7/15/2020		9/30/2020		12/21/2020		4/7/2021		6/16/2021		9/27/2021		9/12/2017	
				Media	GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID	C071520-CLW7A		C093020-CLW7A		C122120-CLW7A		C040721-CLW7A		C061621-CLW7A		C092721-CLW7A		C091217-CLW8A	
				QC Code	REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag	T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	2	J	1.1	J	1.5	J	1	J	5	U	5	U	1100	
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	U	10	U	10	UJ	10	U	10	U	10	UJ	970	
Iron	SW6010	7439-89-6	ug/L	2100		1100		1000		1000		270	B	850			

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CLW-8		CLW-8		CLW-8		CLW-8		CLW-8		CLW-8		CLW-8	
				Sample Date		4/9/2018		10/15/2018		9/23/2019		3/30/2020		6/10/2020		7/1/2020		7/8/2020	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C040918-CLW8		C101518-CLW8		C092319-CLW8		C033020-CLW8		C061020-CLW8		C070120-CLW8		C070820-CLW8	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	520		950		1000		330		690		390		520			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	490	J	860	J	890	J	250		460		380	J-	450			
Iron	SW6010	7439-89-6	ug/L									33	J	30	J	50	U		

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location	CLW-8		CLW-8		CLW-8		CLW-8		CLW-8		CLW-8		CLW-8	
				Sample Date	7/15/2020		10/1/2020		12/21/2020		1/14/2021		1/14/2021		4/5/2021		6/16/2021	
				Media	GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID	C071520-CLW8		C100120-CLW8		C122120-CLW8		C011421-CLW8		C011421-CLW8		C04521-CLW8		C061621-CLW8	
				QC Code	REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag	T		T		T		D		T		T		T	
Parameter	Method	CASNo	Units	Result	Q		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	130			19		130		140				160		210	
Hexavalent Chromium	SW7196	18540-29-9	ug/L	98			25		110	J			130		120		200	
Iron	SW6010	7439-89-6	ug/L	83			1800		50	U					38	J	50	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CLW-8		CPZ-2C		CPZ-2C		CPZ-2C		CPZ-2C		CPZ-2C		CPZ-2C	
				Sample Date		9/27/2021		6/10/2020		7/1/2020		7/8/2020		7/15/2020		9/30/2020		12/21/2020	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C092721-CLW8		C061020-CPZ2C		C070120-CPZ2C		C070820-CPZ2C		C071520-CPZ2C		C093020-CPZ2C		C122120-CPZ2C	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	190		32		19		16		22		36		2.4	J		
Hexavalent Chromium	SW7196	18540-29-9	ug/L	290		28		10	U	10	U	10	U	8.9	J	10	UJ		
Iron	SW6010	7439-89-6	ug/L	26	J	150000		45000		35000		48000		58000		4700			

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location	CPZ-2C		CPZ-2C		CPZ-2C		DMW-A		DMW-A		DMW-A		DMW-A	
				Sample Date	4/7/2021		6/16/2021		9/27/2021		9/12/2017		4/9/2018		10/15/2018		3/28/2019	
				Media	GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID	C040721-CPZ2C		C061621-CPZ2C		C092721-CPZ2C		C091217-DMWA		C040918-DMWA		C101518-DMWA		C032819-DMWA	
				QC Code	REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag	T		T		T		T		T		T		D	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	2.6	J	4.1	J	4.2	J	1.9	J	5	U	5	U	5	U
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	U	10	U	10	U	10	U	10	UJ	7.9	J		
Iron	SW6010	7439-89-6	ug/L	4100		5200		9700									

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		DMW-A		DMW-A		DMW-A		DMW-A		DMW-A		DMW-B		DMW-B	
				Sample Date		3/28/2019		9/23/2019		3/31/2020		9/30/2020		4/5/2021		9/12/2017		4/9/2018	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C032819-DMWA		C092319-DMWA		C033120 - DMWA		C093020-DMWA		C040521-DMWA		C091217-DMWB		C040918-DMWB	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	5	U	1.4	J	5	U	1	J	5	U	8.6		1.2	J		
Hexavalent Chromium	SW7196	18540-29-9	ug/L	38	J	10	R	10	U	10	U	10	U	10	U	10	UJ		
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		DMW-B		DMW-B		DMW-B		DMW-B		DMW-B		DMW-B		DMW-B	
				Sample Date		10/15/2018		3/28/2019		3/28/2019		9/23/2019		3/31/2020		9/30/2020		4/5/2021	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C101518-DMWB		C032819-DMWB		C032819-DMWB		C092319-DMWB		C033120 - DMWB		C093020-DMWB		C040521-DMWB	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		D		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Hexavalent Chromium	SW7196	18540-29-9	ug/L	9.1	J			10	U	10	R	5.4	J	10	U	10	U		
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		OSW-1A		OSW-1A		OSW-1A		OSW-1A		OSW-1A		OSW-1A		OSW-1A	
				Sample Date		9/14/2017		4/10/2018		10/10/2018		3/29/2019		3/29/2019		3/29/2019		3/29/2019	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C091417-OSW1A		C041018-OSW1A		C101018-OSW1A		C032919-OSW1		C032919-OSW1		C032919-OSW1-DUP		C032919-OSW1-DUP	
				QC Code		REG		REG		REG		REG		REG		FD		FD	
				Filtered Flag		T		T		T		D		T		D		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	220		150		180		110		130		130		170			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	190		130		160				100	J			150	J		
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		OSW-1A		OSW-1A		OSW-1A		OSW-1A		OSW-1B		OSW-1B		OSW-1B	
				Sample Date		9/26/2019		3/31/2020		10/1/2020		4/8/2021		9/14/2017		4/10/2018		10/10/2018	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C092619-OSW1A		C033120 - OSW1A		C100120-OSW1A		CO40821-OSW1A		C091417-OSW1B		C041018-OSW1B		C101018-OSW1B	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	170		100		450		120		1.1	J	1.4	J	2	J		
Hexavalent Chromium	SW7196	18540-29-9	ug/L	170	J	93		40		120		10	U	10	U	10	U		
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		OSW-1B		OSW-1B		OSW-1B		OSW-1B		OSW-1B		OSW-1B		OSW-2B	
				Sample Date		3/29/2019		3/29/2019		9/25/2019		3/31/2020		9/30/2020		4/8/2021		9/13/2017	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C032919-OSW1B		C032919-OSW1B		C092519-OSW1 B		C033120 - OSW1B		C093020-OSW1B		CO40821-OSW1B		C091317-OSW2B	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		D		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	5	U	5	U	5	U	5	U	1.9	J	2.2	J	1600			
Hexavalent Chromium	SW7196	18540-29-9	ug/L			11		6.6	J-	10	U	10	U	10	U	2400			
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location	OSW-2B		OSW-2B		OSW-2B		OSW-2B		OSW-2B		OSW-2B		OSW-2B	
				Sample Date	4/12/2018		10/16/2018		3/28/2019		3/28/2019		9/26/2019		3/30/2020		10/1/2020	
				Media	GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID	C041218-OSW2B		C101618-OSW2B		C032819-OSW2B		C032819-OSW2B		C092619-OSW2B		C033020-OSW2B		C100120-OSW2B	
				QC Code	REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag	T		T		D		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	700		1000		490		550		1700		490		2700	
Hexavalent Chromium	SW7196	18540-29-9	ug/L	170		130				460		970	J	440		140	
Iron	SW6010	7439-89-6	ug/L														

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		OSW-2B		OSW-3A		OSW-3A		OSW-3A		OSW-3A		OSW-3A		OSW-3A	
				Sample Date		4/8/2021		9/13/2017		4/12/2018		10/15/2018		10/15/2018		3/27/2019		3/27/2019	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		CO40821-OSW2B		C091317-OSW3A		C041218-OSW3A		C101518-OSW3A		C101518-OSW3A DUP		C032719-OSW3A		C032719-OSW3A	
				QC Code		REG		REG		REG		REG		FD		REG		REG	
				Filtered Flag		T		T		T		T		T		D		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	530		3.5	J	16		72		70		56		58			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	400		10	U	16		76		64				56			
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		OSW-3A		OSW-3A		OSW-3A		OSW-3B		OSW-3B		OSW-3B		OSW-3B	
				Sample Date		9/25/2019		3/31/2020		4/7/2021		9/14/2017		4/12/2018		10/16/2018		3/29/2019	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C092519-OSW3 A		C033120 - OSW3A		C040721-OSW3A		C091417-OSW3B		C041218-OSW3B		C101618-OSW3B		C032919-OSW3B	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T		T		T		D	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	6.7		110		96		3.5	J	5	U	5	U	2.1	J		
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	U	98		81		10	U	10	U	10	U				
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		OSW-3B		OSW-3B		OSW-3B		OSW-3B		OSW-3B		OSW-4I		OSW-4I	
				Sample Date		3/29/2019		9/25/2019		4/2/2020		10/1/2020		4/7/2021		9/12/2017		4/11/2018	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C032919-OSW3B		C092519-OSW3 B		C040220-OSW 3B		C100120-OSW3B		C040721-OSW3B		C091217-OSW4I		C041118-OSW4I	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	5	U	3.4	J	5	U	1.5	J	5	U	140		100	
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	U	10	U	10	U	30		10	U	140		77	
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		OSW-4I		OSW-4I		OSW-4I		OSW-4I		OSW-4I		OSW-4I		OSW-4I	
				Sample Date		10/9/2018		3/28/2019		3/28/2019		9/24/2019		3/31/2020		10/1/2020		4/8/2021	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C100918-OSW4I		C032819-OSW4I		C032819-OSW4I		C092419-OSW4I		C033120 - OSW4I		C100120-OSW4I		CO40821-OSW41	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		D		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	110		55		60		67		52		51		22			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	66	J			54		10	U	66		57		11			
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		OSW-7A		OSW-7A		OSW-7A		OSW-7A		OSW-7A		OSW-7A		OSW-7A	
				Sample Date		9/12/2017		9/12/2017		4/9/2018		10/9/2018		3/27/2019		3/27/2019		9/23/2019	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C091217-OSW7		C091217-OSW7DUP		C040918-OSW7A		C100918-OSW7A		C032719-OSW7		C032719-OSW7		C092319-OSW7DUP	
				QC Code		REG		FD		REG		REG		REG		REG		FD	
				Filtered Flag		T		T		T		T		D		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	560		570		240		530		180		170		460	J-		
Hexavalent Chromium	SW7196	18540-29-9	ug/L	660		600		250	J	450	J			170		180	J		
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		OSW-7A		OSW-7A		OSW-7A		OSW-7A		OSW-7A		OSW-8A		OSW-8A	
				Sample Date		9/23/2019		3/30/2020		9/28/2020		9/28/2020		4/5/2021		3/27/2019		3/27/2019	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C092319-OSW7		C033020-OSW7		C092820-OSW7A		C092820-OSW7A DUP		C040521-OSW7		C032719-OSW8		C032719-OSW8	
				QC Code		REG		REG		REG		FD		REG		REG		REG	
				Filtered Flag		T		T		T		T		T		D		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	530	J-	190		300		310		230		210		190			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	420	J	180		370		350		210				190			
Iron	SW6010	7439-89-6	ug/L					50	U	50	U								

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		PP-2		PP-2		PP-2		PP-2		PP-2		PP-2		PP-2	
				Sample Date		9/13/2017		4/11/2018		10/15/2018		3/29/2019		3/29/2019		9/24/2019		4/1/2020	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C091317-PP2		C041118-PP2		C101518-PP2		C032919-PP2		C032919-PP2		C092419-PP2		C040120-PP2	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		D		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	11		170		220		120		150		8.4		130			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	U	77		190				110		10	U	10	U		
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		PP-2		PP-2		PP-3		PP-3		PP-3		PP-3		PP-3	
				Sample Date		10/2/2020		4/6/2021		9/13/2017		4/12/2018		10/16/2018		3/28/2019		3/28/2019	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C100220-PP2		C040621-PP2		C091317-PP3		C041218-PP3		C101618-PP3		C032819-PP3		C032819-PP3	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T		T		D		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	3.9	J	130		800		590		890		520		570			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	24		120		1500		550		790				97			
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		PP-3		PP-3		PP-3		PP-3A		PP-3A		PP-4A		PP-4A	
				Sample Date		9/24/2019		4/1/2020		4/6/2021		10/1/2020		10/1/2020		9/15/2017		4/12/2018	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C092419-PP3		C040120-PP3		C040621-PP3		C100120-PP3A		C100120-PP3A DUP		C0901517-PP4A		C041218-PP4A	
				QC Code		REG		REG		REG		REG		FD		REG		REG	
				Filtered Flag		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	870		400		470		1000		1100		5.2		32			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	980	J	510		420		160		100		10	U	32			
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		PP-4A		PP-4A		PP-4A		PP-4A		PP-4A		PP-4A		PP-4A	
				Sample Date		10/17/2018		3/28/2019		3/28/2019		9/24/2019		4/1/2020		10/1/2020		4/8/2021	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C101718-PP4A		C032819-PP4A		C032819-PP4A		C092419-PP4A		C040120-PP4A		C100120-PP4A		CO40821-PP4A	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		D		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	59		18		21		9.1		16		3.6	J	35			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	61				15		10	UJ	21		34		20			
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		PP-4B		PP-4B		PP-4B		PP-4B		PP-4B		PP-4B		PP-4B	
				Sample Date		9/15/2017		4/12/2018		10/17/2018		3/28/2019		3/28/2019		9/24/2019		4/1/2020	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C0901517-PP4B		C041218-PP4B		C101718-PP4B		C032819-PP4B		C032819-PP4B		C092419-PP4B		C040120-PP4B	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		D		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	57		25		13		5	U	8.9		12		9.8			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	U	18		10	U			10	U	16		16			
Iron	SW6010	7439-89-6	ug/L																

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		PP-4B		PP-4B		RW-3		RW-3		RW-3		RW-3		RW-3	
				Sample Date		10/1/2020		4/6/2021		7/1/2020		7/8/2020		7/15/2020		9/30/2020		12/21/2020	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C100120-PP4B		C040621-PP4B		C070120-RW3		C070820-RW3		C071520-RW3		C093020-RW3		C122120-RW3	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	13		12		310		300		290		230		150			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	U	10	U	290		280		270		230		130	J		
Iron	SW6010	7439-89-6	ug/L					250		190		120		190		390			

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		RW-3		RW-3		RW-3		RW-3		RW-3		XRF-30		XRF-30	
				Sample Date		1/14/2021		1/14/2021		4/7/2021		6/16/2021		9/27/2021		5/10/2018		5/10/2018	
				Media		GW		GW		GW		GW		GW		GW		GW	
				Field Sample ID		C011421-RW3		C011421-RW3		C040721-RW3		C061621-RW3		C092721-RW3		C051018-TW1		C051018-TW1	
				QC Code		REG		REG		REG		REG		REG		REG		REG	
				Filtered Flag		D		T		T		T		T		D		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	190				380		360		330		150		1400	
Hexavalent Chromium	SW7196	18540-29-9	ug/L			180		370		350		310	J			170	
Iron	SW6010	7439-89-6	ug/L					55		150	B	97					

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-3
2017-2021 Groundwater Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	XRF-31		XRF-31		XRF-32		XRF-32		XRF-33		XRF-33	
			Sample Date	5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018		5/10/2018	
			Media	GW		GW		GW		GW		GW		GW	
			Field Sample ID	C051018-TW2		C051018-TW2		C051010-TW3		C051010-TW3		C051010-TW4		C051010-TW4	
			QC Code	REG		REG		REG		REG		REG		REG	
			Filtered Flag	D		T		D		T		D		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium	SW6010	7440-47-3	ug/L	31		230		3.8	J	3400		2.6	J	51	
Hexavalent Chromium	SW7196	18540-29-9	ug/L			41				10	U			10	U
Iron	SW6010	7439-89-6	ug/L												

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-4
2017-2021 Groundwater Analytical Data - General Chemistry
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-7A		CLW-7A		CLW-7A		CLW-7A		CLW-7A		CLW-7A		CLW-7A		CLW-7A		CLW-7A	
			Sample Date	6/10/2020		7/1/2020		7/8/2020		7/15/2020		9/30/2020		12/21/2020		4/7/2021		6/16/2021		9/27/2021	
			Media	GW		GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C061020-CLW7A		C070120-CCW7A		C070820-CLW7A		C071520-CLW7A		C093020-CLW7A		C122120-CLW7A		C040721-CLW7A		C061621-CLW7A		C092721-CLW7A	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Alkalinity	SM2320B	ALK	ug/L	82000		88000				91000											
Alkalinity Total	SM2320B	ALKALINITY	ug/L	82000		88000		91000		91000		99000		78000	J+	84000		95000		99000	
Bicarbonate Alkalinity	SM2320B	ALKB	ug/L	82000		88000		91000		91000		99000		78000		84000		95000			
Carbonate Alkalinity	SM2320B	ALKC	ug/L	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U		
Methane	RSK175	74-82-8	ug/L	14		14		17		15		25		16		15		12		12	
Nitrogen, Nitrate	E300.0	14797-55-8	ug/L							50	U	50	U			58				50	U
Nitrogen, Nitrate	E353.2	14797-55-8	ug/L	50	U	50	U	50	U					160	J			160			
Sulfate	E300.0	14808-79-8	ug/L	38000		41000		41000		40000		41000		32000		41000		32000		37000	

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-4
2017-2021 Groundwater Analytical Data - General Chemistry
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-8		CLW-8		CLW-8		CLW-8		CLW-8		CLW-8		CLW-8		CLW-8	
			Sample Date	6/10/2020		7/1/2020		7/8/2020		7/15/2020		10/1/2020		12/21/2020		4/5/2021		6/16/2021	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C061020-CLW8		C070120-CLW8		C070820-CLW8		C071520-CLW8		C100120-CLW8		C122120-CLW8		C04521-CLW8		C061621-CLW8	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Alkalinity	SM2320B	ALK	ug/L	55000		58000				63000									
Alkalinity Total	SM2320B	ALKALINITY	ug/L	55000		58000		59000		63000		97000		72000		60000		63000	
Bicarbonate Alkalinity	SM2320B	ALKB	ug/L	55000		58000		59000		63000		97000		72000		60000		63000	
Carbonate Alkalinity	SM2320B	ALKC	ug/L	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U
Methane	RSK175	74-82-8	ug/L	4	U	17		16		19		16		17		270		1200	
Nitrogen, Nitrate	E300.0	14797-55-8	ug/L							72		220				300			
Nitrogen, Nitrate	E353.2	14797-55-8	ug/L	420		170		120						530	J			170	
Sulfate	E300.0	14808-79-8	ug/L	19000		21000		21000		20000		9300		21000		20000		16000	

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-4
2017-2021 Groundwater Analytical Data - General Chemistry
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CLW-8		CPZ-2C		CPZ-2C		CPZ-2C		CPZ-2C		CPZ-2C		CPZ-2C		CPZ-2C	
			Sample Date	9/27/2021		6/10/2020		7/1/2020		7/8/2020		7/15/2020		9/30/2020		12/21/2020		4/7/2021	
			Media	GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C092721-CLW8		C061020-CPZ2C		C070120-CPZ2C		C070820-CPZ2C		C071520-CPZ2C		C093020-CPZ2C		C122120-CPZ2C		C040721-CPZ2C	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Alkalinity	SM2320B	ALK	ug/L			370000		1400000				290000							
Alkalinity Total	SM2320B	ALKALINITY	ug/L	71000		370000		1400000		520000		290000		260000		500000		320000	
Bicarbonate Alkalinity	SM2320B	ALKB	ug/L			370000		1400000		520000		290000		260000		500000		320000	
Carbonate Alkalinity	SM2320B	ALKC	ug/L			5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U
Methane	RSK175	74-82-8	ug/L	330		52		550		240		140		160		50		80	
Nitrogen, Nitrate	E300.0	14797-55-8	ug/L	57								250	U	460				100	U
Nitrogen, Nitrate	E353.2	14797-55-8	ug/L			120		100		49	J					50	UJ		
Sulfate	E300.0	14808-79-8	ug/L	17000		1100000		990000		320000		150000		72000		4000	J	52000	

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-4
2017-2021 Groundwater Analytical Data - General Chemistry
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CPZ-2C		CPZ-2C		RW-3		RW-3		RW-3		RW-3		RW-3		RW-3		RW-3		RW-3	
			Sample Date	6/16/2021		9/27/2021		7/1/2020		7/8/2020		7/15/2020		9/30/2020		12/21/2020		4/7/2021		6/16/2021		9/27/2021	
			Media	GW		GW		GW		GW		GW		GW		GW		GW		GW		GW	
			Field Sample ID	C061621-CPZ2C		C092721-CPZ2C		C070120-RW3		C070820-RW3		C071520-RW3		C093020-RW3		C122120-RW3		C040721-RW3		C061621-RW3		C092721-RW3	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Alkalinity	SM2320B	ALK	ug/L					43000				45000											
Alkalinity Total	SM2320B	ALKALINITY	ug/L	360000		360000		43000		45000		45000		54000		56000		44000		47000		55000	
Bicarbonate Alkalinity	SM2320B	ALKB	ug/L	360000				43000		45000		45000		54000		56000		44000		47000			
Carbonate Alkalinity	SM2320B	ALKC	ug/L	5000	U			5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U		
Methane	RSK175	74-82-8	ug/L	1900		3100		4	U	4	U	4	U	1.1	J	4	U	4	U	4	U	4	U
Nitrogen, Nitrate	E300.0	14797-55-8	ug/L			92						650		610				980				1200	
Nitrogen, Nitrate	E353.2	14797-55-8	ug/L	64				700		680						2200	J			940			
Sulfate	E300.0	14808-79-8	ug/L	56000		28000		21000		22000		22000		25000		39000		18000		18000		19000	

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-5
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO June 2014)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BIW-1	BIW-1	BIW-1	BIW-1	BIW-2	BIW-2	BIW-2	BIW-2	BIW-4	BIW-4	BIW-4	BIW-4	BIW-5	BIW-5	BIW-5	BIW-5	BIW-6	BIW-6	BIW-6	BIW-6
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Oct-13	Dec-13	Apr-14	Jun-14	Oct-13	Dec-13	Apr-14	Jun-14	Oct-13	Dec-13	Apr-14	Jun-14	Oct-13	Dec-13	Apr-14	Jun-14	Oct-13	Dec-13	Apr-14	Jun-14
Chlorinated Ethenes (ug/L)																						
Tetrachloroethene	30,000	100,000	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	10 U	10 U	100 U	200 U	800 U	800 U	800 U	800 U
Trichloroethene (TCE)	5,000	50,000	3,300	**8,400**	3,200	2,600	350	760	1,200	1,200	**5,800**	**21,000**	**17,000**	**17,000**	670	**5,100**	**12,000**	**17,000**	**58,000**	**80,000**	**53,000**	**53,000**
cis-1,2-Dichloroethene	50,000	100,000	1,500	3,900	1,500	1,100	28	120	190	160	490	1300	1000	1,100	58	360	1,100	1,400	2,300	2,900	2,600	2,400
trans-1,2-Dichloroethene	50,000	100,000	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	10 U	37	100 U	200 U	800 U	800 U	800 U	800 U
1,1-Dichloroethene	30,000	100,000	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	10 U	10 U	100 U	200 U	800 U	800 U	800 U	800 U
Vinyl chloride	50,000	100,000	610	1800	490	390	8.0 U	23	7.7 J	20 U	100 U	140	400 U	400 U	10 U	68	250	320	800 U	800 U	800 U	800 U
Chlorinated Ethanes (ug/L)																						
Chloroethane	NL	NL	40 U	80 U	100 U	100 U	16 U	16 U	16 U	40 U	200 U	200 U	800 U	800 U	20 U	20 U	200 U	400 U	1,600 U	1,600 U	1,600 U	1,600 U
1,1,2,2-Tetrachloroethane	50,000	100,000	10 U	20 U	25 U	25 U	4.0 U	4.0 U	4.0 U	10 U	50 U	50 U	200 U	200 U	45	58	50 U	100 U	400 U	400 U	400 U	400 U
1,1,1-Trichloroethane	20,000	100,000	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	10 U	10 U	100 U	200 U	800 U	800 U	800 U	800 U
1,1,2-Trichloroethane	50,000	100,000	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	7.5 J	7.3 J	100 U	200 U	800 U	800 U	800 U	800 U
1,1-Dichloroethane	20,000	100,000	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	10 U	10 U	100 U	200 U	800 U	800 U	800 U	800 U
1,2-Dichloroethane	20,000	100,000	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	15	12	100 U	200 U	800 U	800 U	800 U	800 U
Other VOCs (ug/L)																						
2-Butanone	50,000	100,000	200 U	400 U	500 U	500 U	80 U	80 U	80 U	200 U	1000 U	1000 U	4,000 U	4,000 U	100 U	100 U	1000 U	2,000 U	8,000 U	8,000 U	8000 U	8,000 U
2-Chlorotoluene	NL	NL	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	10 U	10 U	100 U	200 U	800 U	800 U	800 U	800 U
4-Chlorotoluene	NL	NL	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	10 U	10 U	100 U	200 U	800 U	800 U	800 U	800 U
Acetone	50,000	100,000	1000 U	2000 U	2500 U	2,500 U	400 U	400 U	400 U	1,000 U	5,000 U	5,000 U	20,000 U	20,000 U	500 U	500 U	5,000 U	10,000 U	40,000 U	40,000 U	40,000 U	40,000 U
Benzene	10,000	100,000	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	10 U	10 U	100 U	200 U	800 U	800 U	800 U	800 U
Bromodichloromethane	50,000	100,000	10 U	20 U	25.0 U	25 U	4.0 U	4.0 U	4.0 U	10 U	50 U	50 U	200 U	200 U	5.0 U	5.0 U	50 U	100 U	400 U	400 U	400 U	400 U
Butylbenzene	NL	NL	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	10 U	10 U	100 U	200 U	800 U	800 U	800 U	800 U
Carbon disulfide	NL	NL	200 U	400 U	500 U	500 U	80 U	80 U	80 U	200 U	1000 U	1000 U	4,000 U	4,000 U	26 J	29 J	27 J	2,000 U	8,000 U	8,000 U	8,000 U	8,000 U
Carbon tetrachloride	5,000	50,000	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	10 U	10 U	100 U	200 U	800 U	800 U	800 U	800 U
Chlorobenzene	1,000	10,000	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	10 U	10 U	100 U	200 U	800 U	800 U	800 U	800 U
Chloroform	20,000	100,000	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	14	11	100 U	200 U	800 U	800 U	800 U	800 U
Chloromethane	NL	NL	40 U	80 U	100 U	100 U	16 U	16 U	16 U	40 U	200 U	200 U	800 U	800 U	380	330	84 J	92 J	1,600 U	1,600 U	1600 U	1,600 U
Ethylbenzene	5,000	100,000	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	10 U	10 U	100 U	200 U	800 U	800 U	800 U	800 U
Methylene chloride	50,000	100,000	20 U	40 U	50 U	44 J	8.0 U	8.0 U	8.0 U	16 J	100 U	100 U	400 U	340 J	130	100	100 U	160 J	800 U	800 U	800 U	750 J
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	10 U	10 U	100 U	200 U	800 U	800 U	800 U	800 U
Toluene	40,000	100,000	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	10 U	10 U	100 U	200 U	800 U	800 U	800 U	800 U
Xylenes, m,p-	5,000	100,000	40 U	80 U	100 U	100 U	16 U	16 U	16 U	40 U	200 U	200 U	800 U	800 U	20 U	20 U	200 U	400 U	1,600 U	1,600 U	1,600 U	1,600 U
Xylene, o-	5,000	100,000	20 U	40 U	50 U	50 U	8.0 U	8.0 U	8.0 U	20 U	100 U	100 U	400 U	400 U	10 U	10 U	100 U	200 U	800 U	800 U	800 U	800 U
Metals, Total (ug/L)																						
Chromium	300	3,000	28	26	11	23	71	65	25	52	**320**	170	86	120	**1,600**	**480**	**470**	**440**	34	15	9.4	9.6
Hexavalent Chromium	300	3,000	11	5.0 U	5.0 U	5.0 U	6.7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	250 U	**510**	240	210	**430**	5.0 U	5.0 U	5.0 U
Metals, Dissolved (ug/L)					---				---				---				---				---	
Chromium	300	3,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:
(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1
--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000
U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range
10 - Indicates value exceeds current GW-3 Standard
10 - Indicates value exceeds current UCL
Metals concentrations are reported as total except for hexavalent chromium, which is dissolved

Table A-5
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO June 2014)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BIW-7	BIW-7	BIW-7	BIW-7	BIW-14	BIW-14	BIW-14	BIW-14	BIW-15	BIW-15	BIW-15	BIW-15	BIW-16	BIW-16	BIW-16	BIW-16	BIW-24	BIW-24	BIW-24	BIW-24
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Oct-13	Dec-13	Apr-14	Jun-14	Oct-13	Dec-13	Apr-14	Jun-14	Oct-13	Dec-13	Apr-14	Jun-14	Oct-13	Dec-13	Apr-14	Jun-14	Oct-13	Dec-13	Apr-14	Jun-14
Chlorinated Ethenes (ug/L)																						
Tetrachloroethene	30,000	100,000	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	20 U	26	250 U	250 U	130 U	130 U	400 U	400 U	1.0 U	3.7	6.1	100 U
Trichloroethene (TCE)	5,000	50,000	**20,000**	**24,000**	**20,000**	**25,000**	**22,000**	**15,000 J**	**10,000**	**11,000**	680	**27,000**	**14,000**	**21,000**	**9,700**	**22,000**	**36,000**	**20,000**	40	**5,300**	**11,000**	**6,700**
cis-1,2-Dichloroethene	50,000	100,000	750	930	1,000	1,100	530	360	310	320	17 J	420	200 J	420	130 U	130 U	400 U	400 U	5.3	470	1000	630
trans-1,2-Dichloroethene	50,000	100,000	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	20 U	25	250 U	250 U	130 U	130 U	400 U	400 U	1.0 U	3.6	4.4	100 U
1,1-Dichloroethene	30,000	100,000	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	20 U	20 U	250 U	250 U	130 U	130 U	400 U	400 U	1.0 U	1.0 U	0.88 J	100 U
Vinyl chloride	50,000	100,000	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	20 U	20 U	250 U	250 U	130 U	130 U	400 U	400 U	1.0 U	140	220	150
Chlorinated Ethanes (ug/L)																						
Chloroethane	NL	NL	400 U	400 U	800 U	800 U	160 U	400 U	400 U	400 U	40 U	40 U	500 U	500 U	250 U	250 U	800 U	800 U	1.0 J	2.0 U	2.0 U	200 U
1,1,2,2-Tetrachloroethane	50,000	100,000	180	100 U	200 U	110 J	19 J	100 U	100 U	100 U	1100	500	860	68 J	63 U	63 U	200 U	200 U	0.50 U	3	2	50 U
1,1,1-Trichloroethane	20,000	100,000	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	20 U	20 U	250 U	250 U	130 U	130 U	400 U	400 U	1.0 U	1.0 U	1.0 U	100 U
1,1,2-Trichloroethane	50,000	100,000	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	72	34	250 U	250 U	130 U	130 U	400 U	400 U	0.91 J	0.29 J	0.30 J	100 U
1,1-Dichloroethane	20,000	100,000	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	20 U	20 U	250 U	250 U	130 U	130 U	400 U	400 U	1.0 U	1.0 U	1.0 U	100 U
1,2-Dichloroethane	20,000	100,000	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	26	13 J	250 U	250 U	130 U	130 U	400 U	400 U	1.7	1.0 U	1.0 U	100 U
Other VOCs (ug/L)																						
2-Butanone	50,000	100,000	2000 U	2000 U	4,000 U	4,000 U	800 U	2,000 U	2,000 U	2,000 U	200 U	200 U	2500 U	2,500 U	1300 U	1300 U	4,000 U	4,000 U	10 U	10 U	10 U	1,000 U
2-Chlorotoluene	NL	NL	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	20 U	20 U	250 U	250 U	130 U	130 U	400 U	400 U	1.0 U	1.0 U	1.0 U	100 U
4-Chlorotoluene	NL	NL	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	20 U	20 U	250 U	250 U	130 U	130 U	400 U	400 U	1.0 U	1.0 U	1.0 U	100 U
Acetone	50,000	100,000	10,000 U	10,000 U	20,000 U	20,000 U	4,000 U	10,000 U	10,000 U	10,000 U	77 J	1,000 U	13,000 U	13,000 U	6,300 U	6,300 U	20,000 U	20,000 U	19 J	50 U	50 U	5,000 U
Benzene	10,000	100,000	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	20 U	20 U	250 U	250 U	130 U	130 U	400 U	400 U	1.0 U	1.0 U	1.0 U	100 U
Bromodichloromethane	50,000	100,000	100 U	100 U	200 U	200 U	40 U	100 U	100 U	100 U	10 U	10 U	130 U	130 U	63 U	63 U	200 U	200 U	0.50 U	0.50 U	0.50 U	50 U
Butylbenzene	NL	NL	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	20 U	20 U	250 U	250 U	130 U	130 U	400 U	400 U	1.0 U	1.0 U	1.0 U	100 U
Carbon disulfide	NL	NL	2,000 U	2,000 U	4,000 U	4,000 U	800 U	20,00 UJ	2,000 U	2,000 U	60 J	50 J	84 J	2,500 U	1,300 U	1,300 U	4,000 U	4,000 U	9.3 J	2.8 J	3.2 J	82 J
Carbon tetrachloride	5,000	50,000	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	20 U	20 U	250 U	250 U	130 U	130 U	400 U	400 U	1.0 U	1.0 U	1.0 U	100 U
Chlorobenzene	1,000	10,000	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	20 U	20 U	250 U	250 U	130 U	130 U	400 U	400 U	1.0 U	1.0 U	1.0 U	100 U
Chloroform	20,000	100,000	73 J	200 U	400 U	400 U	80 U	200 U	200 U	200 U	470	190	250	250 U	130 U	130 U	400 U	400 U	8.9	0.70 J	0.83 J	100 U
Chloromethane	NL	NL	370 J	400 U	800 U	800 U	60 J	400 U	400 U	400 U	470	200	180 J	500 U	250 U	250 U	800 U	800 U	46	2.0 U	2.0 U	200 U
Ethylbenzene	5,000	100,000	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	20 U	20 U	250 U	250 U	130 U	130 U	400 U	400 U	1.0 U	1.0 U	1.0 U	100 U
Methylene chloride	50,000	100,000	280	200 U	400 U	360 J	48 J	200 U	200 U	150 J	1100	460	500	240 J	130 U	130 U	400 U	360 J	8.3	1.0 U	1.0 U	170
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	20 U	20 U	250 U	250 U	130 U	130 U	400 U	400 U	1.0 U	1.0 U	1.0 U	100 U
Toluene	40,000	100,000	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	20 U	44	250 U	250 U	130 U	130 U	400 U	400 U	1.0 U	1.1	1.7	100 U
Xylenes, m,p-	5,000	100,000	400 U	400 U	800 U	800 U	160 U	400 U	400 U	400 U	40 U	40 U	500 U	500 U	250 U	250 U	800 U	800 U	2.0 U	2.0 U	0.95 J	200 U
Xylene, o-	5,000	100,000	200 U	200 U	400 U	400 U	80 U	200 U	200 U	200 U	20 U	20 U	250 U	250 U	130 U	130 U	400 U	400 U	1.0 U	1.0 U	1.0 U	100 U
Metals, Total (ug/L)																						
Chromium	300	3,000	71	7	2.7 J	26	69	12	14	6.1	**320**	130	180	11	**450**	**570**	250	180	**1,500**	58	21	42
Hexavalent Chromium	300	3,000	500 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**840**	50 U	130 U	5.0 U	5,000 U	**320**	160	190	1000 U	5.0 U	5.0 U	5.0 U
Metals, Dissolved (ug/L)					---				---				---				---				---	
Chromium	300	3,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:
(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1
--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000
U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range
10 - Indicates value exceeds current GW-3 Standard
10 - Indicates value exceeds current UCL
Metals concentrations are reported as total except for hexavalent chromium, which is dissolved

Table A-5
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO June 2014)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards [1]		BIW-31	BIW-31	BIW-31	BIW-31	BIW-32	BIW-32	BIW-32	BIW-32	BIW-33	BIW-33	BIW-33	BIW-33	BMW-5	BMW-5	BMW-5	BMW-5	OSW-1B	OSW-1B	OSW-1B	OSW-1B
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	Oct-13	Dec-13	Apr-14	Jun-14	Oct-13	Dec-13	Apr-14	Jun-14	Oct-13	Dec-13	Apr-14	Jun-14	Oct-13	Dec-13	Apr-14	Jun-14	Sep-13	Dec-13	Apr-14	Jun-14
Chlorinated Ethenes (ug/L)																						
Tetrachloroethene	30,000	100,000	10 U	27	400 U	400 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.1	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
Trichloroethene (TCE)	5,000	50,000	330	**25,000**	**36,000**	**28,000**	44	29	320	120	22	**6,400**	**5,400**	**9,800**	**17,000**	**20,000**	**16,000**	**14,000**	**6,300**	4,200	**5,300**	**6,900**
cis-1,2-Dichloroethene	50,000	100,000	10 U	210	420	400 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	100 U	100 U	1500	1900	1500	1,300	210	160	240	280
trans-1,2-Dichloroethene	50,000	100,000	10 U	10 U	400 U	400 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
1,1-Dichloroethene	30,000	100,000	10 U	10 U	400 U	400 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
Vinyl chloride	50,000	100,000	10 U	10 U	400 U	400 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	100 U	100 U	400 U	400 U	220	200 U	100 U	100 U	100 U	100 U
Chlorinated Ethanes (ug/L)																			---	---		
Chloroethane	NL	NL	20 U	20 U	800 U	800 U	8.0 U	8.0 U	8.0 U	8.0 U	2.0 U	2.0 U	200 U	200 U	800 U	800 U	160 U	400 U	200 U	200 U	200 U	200 U
1,1,2,2-Tetrachloroethane	50,000	100,000	650	1,600	1,800	1,800	17	12	2.0 U	16	9.5	14	50 U	50 U	200 U	200 U	40 U	100 U	50 U	50 U	50 U	50 U
1,1,1-Trichloroethane	20,000	100,000	10 U	10 U	400 U	400 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
1,1,2-Trichloroethane	50,000	100,000	18	57	400 U	400 U	4.0 U	4.0 U	4.0 U	4.0 U	0.40 J	0.29 J	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
1,1-Dichloroethane	20,000	100,000	10 U	10 U	400 U	400 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
1,2-Dichloroethane	20,000	100,000	10 U	15	400 U	400 U	1.2 J	4.0 U	4.0 U	4.0 U	0.85 J	0.55 J	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
Other VOCs (ug/L)																			---	---		
2-Butanone	50,000	100,000	100 U	100 U	4,000 U	4,000 U	40 U	40 U	40 U	40 U	10 U	2.0 J	1000 U	1,000 U	4,000 U	4,000 U	800 U	2,000 U	1000 U	1000 U	1,000 U	1,000 U
2-Chlorotoluene	NL	NL	10 U	10 U	400 U	400 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
4-Chlorotoluene	NL	NL	10 U	10 U	400 U	400 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
Acetone	50,000	100,000	74 J	500 U	20,000 U	20,000 U	54 J	200 U	200 U	35 J	40 J	50 U	5,000 U	5,000 U	20,000 U	20,000 U	4,000 U	10,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Benzene	10,000	100,000	10 U	10 U	400 U	400 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
Bromodichloromethane	50,000	100,000	5.0 U	5.0 U	200 U	200 U	2.0 U	2.0 U	2.0 U	2.0 U	0.50 U	0.50 U	50 U	50 U	200 U	200 U	40 U	100 U	50 U	50 U	50 U	50 U
Butylbenzene	NL	NL	10 U	10 U	400 U	400 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
Carbon disulfide	NL	NL	21 J	51 J	4,000 U	4,000 U	2.4 J	11 J	2.9 J	3.6 J	1.4 J	4.4 J	1,000 U	1,000 U	4,000 U	4,000 U	800 U	2,000 U	1000 U	1000 U	1,000 U	1,000 U
Carbon tetrachloride	5,000	50,000	10 U	10 U	400 U	400 U	4.0 U	4.0 U	4.0 U	4.0 U	5.4	6.6	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
Chlorobenzene	1,000	10,000	10 U	10 U	400 U	400 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
Chloroform	20,000	100,000	550	500	370 J	650	12	9.7	4.0 U	10	6.3	5.1	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
Chloromethane	NL	NL	170	500	260 J	440 J	170	86	8.1	80	49	23	200 U	200 U	290 J	800 U	160 U	400 U	36 J	200 U	200 U	200 U
Ethylbenzene	5,000	100,000	10 U	10 U	400 U	400 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
Methylene chloride	50,000	100,000	340	810	610	960	50	30	4.0 U	28	23	12	100 U	88 J	400 U	400 U	80 U	160 J	100 U	100 U	100 U	67 J
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	10 U	10 U	400 U	400 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
Toluene	40,000	100,000	10 U	9.0 J	550	400 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
Xylenes, m,p-	5,000	100,000	20 U	20 U	800 U	800 U	8.0 U	8.0 U	8.0 U	8.0 U	2.0 U	2.0 U	200 U	200 U	800 U	800 U	160 U	400 U	200 U	200 U	200 U	200 U
Xylene, o-	5,000	100,000	10 U	10 U	400 U	400 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	100 U	100 U	400 U	400 U	80 U	200 U	100 U	100 U	100 U	100 U
Metals, Total (ug/L)																			---	---		
Chromium	300	3,000	**500**	**360**	180	290	**490**	**450**	43	170	160	22	61	16	36	16	15	4.3 J	25	3.6 J	2.9 J	3.1 J
Hexavalent Chromium	300	3,000	250 U	250 U	130 U	500 U	5.0 U	130 U	52	500 U	250 U	50 U	130 U	5.0 U	36	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 UJ	50 U
Metals, Dissolved (ug/L)					---				---				---				---		---	---		
Chromium	300	3,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.4	---	---	---

Notes:
(1) Compounds detected in groundwater have been compared to applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1
--- denotes not analyzed for; NL = indicates standard not listed in 310 CMR 40.0000
U = analyte was analyzed for but not detected above the indicated detection limit; J = value was estimated; B = analyte detected in associated blank; E = exceeds calibration range
10 - Indicates value exceeds current GW-3 Standard
10 - Indicates value exceeds current UCL
Metals concentrations are reported as total except for hexavalent chromium, which is dissolved

Prepared by / Date: HTS 07/30/14
Checked by / Date: CTM 07/31/14

Table A-6
2019-2021 Surface Water Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-2		CSW-2		CSW-2		CSW-2		CSW-2		CSW-2		CSW-2		CSW-3	
			Sample Date	12/19/2019		4/6/2020		12/21/2020		4/5/2021		6/16/2021		6/16/2021		9/27/2021		12/19/2019	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C121919-CSW2		C040620-CSW2		C122120-CSW2		C04521-CSW2		C061621-CSW2		C061621-CSW2DUP		C092721-CSW2		C121919-CSW3	
			QC Code	REG		REG		REG		REG		REG		FD		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U

Table A-6
2019-2021 Surface Water Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-2		CSW-2		CSW-2		CSW-2		CSW-2		CSW-2		CSW-2		CSW-3	
			Sample Date	12/19/2019		4/6/2020		12/21/2020		4/5/2021		6/16/2021		6/16/2021		9/27/2021		12/19/2019	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C121919-CSW2		C040620-CSW2		C122120-CSW2		C04521-CSW2		C061621-CSW2		C061621-CSW2DUP		C092721-CSW2		C121919-CSW3	
			QC Code	REG		REG		REG		REG		REG		FD		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L																
Dibromochloromethane	SW8260	124-48-1	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	0.73	J
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-6
2019-2021 Surface Water Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-3		CSW-3		CSW-3		CSW-3		CSW-3		CSW-3		CSW-3		CSW-3	
			Sample Date	12/19/2019		4/6/2020		4/6/2020		6/10/2020		9/28/2020		12/21/2020		4/5/2021		6/16/2021	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C121919-CSW3 DUP		C040620-CSW3		C040620-CSW3 DUP		C061020-CSW3		C092820-CSW3		C122120-CSW3		C04521-CSW3		C061621-CSW3	
			QC Code	FD		REG		FD		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U

Table A-6
2019-2021 Surface Water Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-3		CSW-3		CSW-3		CSW-3		CSW-3		CSW-3		CSW-3		CSW-3	
			Sample Date	12/19/2019		4/6/2020		4/6/2020		6/10/2020		9/28/2020		12/21/2020		4/5/2021		6/16/2021	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C121919-CSW3 DUP		C040620-CSW3		C040620-CSW3 DUP		C061020-CSW3		C092820-CSW3		C122120-CSW3		C04521-CSW3		C061621-CSW3	
			QC Code	FD		REG		FD		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	1	U	1	U	1	U	0.95	J	5.9		1	U	1	U	1	U
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L																
Dibromochloromethane	SW8260	124-48-1	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	1	U	1	U	1.6		1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	0.76	J	0.58	J	0.62	J	9		90		1.5		1.2		3.1	
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-6
2019-2021 Surface Water Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-3		CSW-3A		CSW-3A		CSW-3A		CSW-3A		CSW-3A		CSW-3A		CSW-3A	
			Sample Date	9/27/2021		12/19/2019		4/6/2020		6/10/2020		9/28/2020		12/21/2020		12/21/2020		4/5/2021	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C092721-CSW3		C121919-CSW3A		C040620-CSW3A		C061020-CSW3A		C092820-CSW3A		C122120-CSW3A		C122120-CSW3A DUP		C04521-CSW3A	
			QC Code	REG		REG		REG		REG		REG		REG		FD		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	U	4.4	J	50	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U

Table A-6
2019-2021 Surface Water Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-3		CSW-3A		CSW-3A		CSW-3A		CSW-3A		CSW-3A		CSW-3A		CSW-3A		CSW-3A	
			Sample Date	9/27/2021		12/19/2019		4/6/2020		6/10/2020		9/28/2020		12/21/2020		12/21/2020		4/5/2021			
			Media	SW		SW		SW		SW		SW		SW		SW		SW			
			Field Sample ID	C092721-CSW3		C121919-CSW3A		C040620-CSW3A		C061020-CSW3A		C092820-CSW3A		C122120-CSW3A		C122120-CSW3A DUP		C04521-CSW3A			
			QC Code	REG		REG		REG		REG		REG		REG		FD		REG			
			Filtered Flag	T		T		T		T		T		T		T		T			
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q		
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Chloromethane	SW8260	74-87-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U		
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	1	U	1	U	1	U	1	U	3		1	U	1	U	1	U		
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U		
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L																		
Dibromochloromethane	SW8260	124-48-1	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Diethyl Ether	SW8260	60-29-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U		
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U		
Isopropyl Ether	SW8260	180-20-3	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U		
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U		
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Methylene Chloride	SW8260	75-09-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U		
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U		
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	1	U	1	U	0.46	J	1	U	1	U	1	U		
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U		
Toluene	SW8260	108-88-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U		
Trichloroethene	SW8260	79-01-6	ug/L	1.4		0.82	J	0.76	J	4.4		22		1.6		1.7		1.2			
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U		

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-6
2019-2021 Surface Water Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-3A		CSW-3A		CSW-4		CSW-4		CSW-4		CSW-4		CSW-4		CSW-4	
			Sample Date	6/16/2021		9/27/2021		12/19/2019		4/6/2020		12/21/2020		4/5/2021		6/16/2021		9/27/2021	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C061621-CSW3A		C092721-CSW3A		C121919-CSW4		C040620-CSW4		C122120-CSW4		C040521-CSW4		C061621-CSW4		C092721-CSW4	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	50	U	50	U	50	U	50	U	3.5	J	50	U	50	U	50	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U

Table A-6
2019-2021 Surface Water Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-3A		CSW-3A		CSW-4		CSW-4		CSW-4		CSW-4		CSW-4		CSW-4	
			Sample Date	6/16/2021		9/27/2021		12/19/2019		4/6/2020		12/21/2020		4/5/2021		6/16/2021		9/27/2021	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C061621-CSW3A		C092721-CSW3A		C121919-CSW4		C040620-CSW4		C122120-CSW4		C040521-CSW4		C061621-CSW4		C092721-CSW4	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L																
Dibromochloromethane	SW8260	124-48-1	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	2.8		1.3		0.6	J	0.52	J	1		0.73	J	0.76	J	0.73	J
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-6
2019-2021 Surface Water Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-5		CSW-5		CSW-5		CSW-5		CSW-5		CSW-5		CSW-5	
			Sample Date	12/19/2019		4/6/2020		6/10/2020		12/21/2020		4/5/2021		6/16/2021		9/27/2021	
			Media	SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C121919-CSW5		C040620-CSW5		C061020-CSW5		C122120-CSW5		C040521-CSW5		C061621-CSW5		C092721-CSW5	
			QC Code	REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	SW8260	75-34-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	SW8260	75-35-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloropropene	SW8260	563-58-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U
1,2-Dibromoethane	SW8260	106-93-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	SW8260	107-06-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	SW8260	78-87-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichloropropane	SW8260	142-28-9	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	SW8260	106-46-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane	SW8260	123-91-1	ug/L	50	U	50	U	50	U	16	J	50	U	50	U	50	U
2,2-Dichloropropane	SW8260	594-20-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	SW8260	78-93-3	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chlorotoluene	SW8260	95-49-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	SW8260	591-78-6	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorotoluene	SW8260	106-43-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	SW8260	67-64-1	ug/L	50	U	50	U	50	U	12	J	50	U	50	U	50	U
Benzene	SW8260	71-43-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromobenzene	SW8260	108-86-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	SW8260	74-97-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	SW8260	75-27-4	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	SW8260	75-25-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromomethane	SW8260	74-83-9	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Butylbenzene	SW8260	104-51-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Disulfide	SW8260	75-15-0	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride	SW8260	56-23-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	SW8260	108-90-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	SW8260	75-00-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U

Table A-6
2019-2021 Surface Water Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-5		CSW-5		CSW-5		CSW-5		CSW-5		CSW-5		CSW-5	
			Sample Date	12/19/2019		4/6/2020		6/10/2020		12/21/2020		4/5/2021		6/16/2021		9/27/2021	
			Media	SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C121919-CSW5		C040620-CSW5		C061020-CSW5		C122120-CSW5		C040521-CSW5		C061621-CSW5		C092721-CSW5	
			QC Code	REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chloroform	SW8260	67-66-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	SW8260	74-87-3	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/L														
Dibromochloromethane	SW8260	124-48-1	ug/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	SW8260	74-95-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Diethyl Ether	SW8260	60-29-7	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Ethylbenzene	SW8260	100-41-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	SW8260	87-68-3	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Isopropyl Ether	SW8260	180-20-3	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Isopropylbenzene	SW8260	98-82-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
m&p-Xylenes	SW8260	NA	ug/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	SW8260	75-09-2	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
n-Propylbenzene	SW8260	103-65-1	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	SW8260	91-20-3	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U
o-Xylene	SW8260	95-47-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
p-Isopropyltoluene	SW8260	99-87-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Sec-Butylbenzene	SW8260	135-98-8	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	SW8260	100-42-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Tert-Butylbenzene	SW8260	98-06-6	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	SW8260	127-18-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrahydrofuran	SW8260	109-99-9	ug/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	SW8260	108-88-3	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Trichloroethene	SW8260	79-01-6	ug/L	1	U	1	U	1.6		1	U	1	U	0.64	J	1	U
Trichlorofluoromethane	SW8260	75-69-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	SW8260	75-01-4	ug/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter
VOCs: volatile organic compounds

Table A-7
2019-2021 Surface Water Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-2		CSW-2		CSW-2		CSW-2		CSW-2		CSW-2		CSW-2		CSW-2	
			Sample Date	12/19/2019		12/19/2019		4/6/2020		4/6/2020		11/2/2020		12/21/2020		12/21/2020		4/5/2021	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C121919-CSW2		C121919-CSW2		C040620-CSW2		C040620-CSW2		C110220-CSW2		C122120-CSW2		C122120-CSW2		C04521-CSW2	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	D		T		D		T		T		D		T		D	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	SW6010	7429-90-5	ug/L	200	U			200	U					200	U			200	U
Antimony	SW6010	7440-36-0	ug/L	20	U			20	U					20	U			20	U
Arsenic	SW6010	7440-38-2	ug/L	10	U			10	U					10	U			10	U
Barium	SW6010	7440-39-3	ug/L	20				20						28				22	
Beryllium	SW6010	7440-41-7	ug/L	1	U			1	U					1	U			1	U
Cadmium	SW6010	7440-43-9	ug/L	1	U			1	U					1	U			1	U
Calcium	SW6010	7440-70-2	ug/L	25000				24000						28000				26000	
Chromium	SW6010	7440-47-3	ug/L	5	U			5	U			5	U	5	U	5	U	5	U
Cobalt	SW6010	7440-48-4	ug/L	4	U			4	U					4	U			4	U
Copper	SW6010	7440-50-8	ug/L	10	U			10	U					10	U			10	U
Hexavalent Chromium	SW7196	18540-29-9	ug/L			10	U			19		10	UJ			10	U		
Iron	SW6010	7439-89-6	ug/L	50	U			32	J			22	J	50	U	49	J	50	U
Lead	SW6010	7439-92-1	ug/L	5	U			5	U					5	U			5	U
Magnesium	SW6010	7439-95-4	ug/L	2300				1900						2300				2100	
Manganese	SW6010	7439-96-5	ug/L	10				11						1.2	J			3	U
Mercury	SW7470	7439-97-6	ug/L	0.2	U			0.2	U					0.2	U			0.2	U
Nickel	SW6010	7440-02-0	ug/L	10	U			10	U					10	U			10	U
Potassium	SW6010	2023695	ug/L	3600				3200						3800				3400	
Selenium	SW6010	7782-49-2	ug/L	10	U			10	U					10	U			10	U
Silver	SW6010	7440-22-4	ug/L	5	U			5	U					5	U			5	U
Sodium	SW6010	7440-23-5	ug/L	37000				33000						39000				32000	
Thallium	SW6010	7440-28-0	ug/L	20	U			20	U					20	U			20	U
Vanadium	SW6010	7440-62-2	ug/L	10	U			10	U					10	U			10	U
Zinc	SW6010	7440-66-6	ug/L	50	U			50	U					6.1	J			50	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-7
2019-2021 Surface Water Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-2		CSW-2		CSW-2		CSW-2		CSW-2		CSW-2		CSW-2		CSW-3	
			Sample Date	4/5/2021		6/16/2021		6/16/2021		6/16/2021		6/16/2021		9/27/2021		9/27/2021		12/19/2019	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C04521-CSW2		C061621-CSW2		C061621-CSW2		C061621-CSW2DUP		C061621-CSW2DUP		C092721-CSW2		C092721-CSW2		C121919-CSW3	
			QC Code	REG		REG		REG		FD		FD		REG		REG		REG	
			Filtered Flag	T		D		T		D		T		D		T		D	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	SW6010	7429-90-5	ug/L			200	U			200	U			200	U			200	U
Antimony	SW6010	7440-36-0	ug/L			20	U			20	U			20	U			20	U
Arsenic	SW6010	7440-38-2	ug/L			10	U			10	U			6.4	J			10	U
Barium	SW6010	7440-39-3	ug/L			22				22				19				21	
Beryllium	SW6010	7440-41-7	ug/L			1	U			1	U			1	U			1	U
Cadmium	SW6010	7440-43-9	ug/L			1	U			1	U			1	U			1	U
Calcium	SW6010	7440-70-2	ug/L			30000				30000				27000				25000	
Chromium	SW6010	7440-47-3	ug/L	5	U	5	U	2.9	J	5	U			5	U	5	U	14	
Cobalt	SW6010	7440-48-4	ug/L			4	U			4	U			4	U			4	U
Copper	SW6010	7440-50-8	ug/L			10	U			10	U			10	U			10	U
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	U			10	U			10	U			10	U		
Iron	SW6010	7439-89-6	ug/L	50	U	50	U	43	J	50	U			29	J	88		50	U
Lead	SW6010	7439-92-1	ug/L			5	U			5	U			5	U			5	U
Magnesium	SW6010	7439-95-4	ug/L			2200				2200				2100				2200	
Manganese	SW6010	7439-96-5	ug/L			1.1	J			1.4	J			2.3	J			9.5	
Mercury	SW7470	7439-97-6	ug/L			0.2	U			0.2	U							0.2	U
Nickel	SW6010	7440-02-0	ug/L			10	U			10	U			10	U			10	U
Potassium	SW6010	2023695	ug/L			3200				3200				4000				3600	
Selenium	SW6010	7782-49-2	ug/L			10	U			10	U			10	U			10	U
Silver	SW6010	7440-22-4	ug/L			5	U			5	U			5	U			5	U
Sodium	SW6010	7440-23-5	ug/L			31000				31000				31000				36000	J-
Thallium	SW6010	7440-28-0	ug/L			20	U			20	U			20	U			20	U
Vanadium	SW6010	7440-62-2	ug/L			10	U			10	U			10	U			10	U
Zinc	SW6010	7440-66-6	ug/L			50	U			50	U			50	U			50	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-7
2019-2021 Surface Water Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-3		CSW-3		CSW-3		CSW-3		CSW-3		CSW-3		CSW-3		CSW-3	
			Sample Date	12/19/2019		12/19/2019		12/19/2019		4/6/2020		4/6/2020		4/6/2020		4/6/2020		5/7/2020	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C121919-CSW3		C121919-CSW3 DUP		C121919-CSW3 DUP		C040620-CSW3		C040620-CSW3		C040620-CSW3 DUP		C040620-CSW3 DUP		C050720-CSW3	
			QC Code	REG		FD		FD		REG		REG		FD		FD		REG	
			Filtered Flag	T		D		T		D		T		D		T		D	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	SW6010	7429-90-5	ug/L			200	U			200	U			200	U				
Antimony	SW6010	7440-36-0	ug/L			20	U			20	U			20	U				
Arsenic	SW6010	7440-38-2	ug/L			10	U			10	U			10	U				
Barium	SW6010	7440-39-3	ug/L			20				20				20					
Beryllium	SW6010	7440-41-7	ug/L			1	U			1	U			1	U				
Cadmium	SW6010	7440-43-9	ug/L			1	U			1	U			1	U				
Calcium	SW6010	7440-70-2	ug/L			25000				24000				24000					
Chromium	SW6010	7440-47-3	ug/L			13				11				12				16	
Cobalt	SW6010	7440-48-4	ug/L			4	U			4	U			4	U				
Copper	SW6010	7440-50-8	ug/L			1.9	J			10	U			1.6	J				
Hexavalent Chromium	SW7196	18540-29-9	ug/L	8.2	J			8.2	J			24				18			
Iron	SW6010	7439-89-6	ug/L			50	U			28	J			25	J				
Lead	SW6010	7439-92-1	ug/L			5	U			5	U			5	U				
Magnesium	SW6010	7439-95-4	ug/L			2200				2000				2000					
Manganese	SW6010	7439-96-5	ug/L			9.8				9.5				9.7					
Mercury	SW7470	7439-97-6	ug/L			0.2	U			0.2	U			0.2	U				
Nickel	SW6010	7440-02-0	ug/L			10	U			10	U			10	U				
Potassium	SW6010	2023695	ug/L			3600				3200				3200					
Selenium	SW6010	7782-49-2	ug/L			10	U			10	U			10	U				
Silver	SW6010	7440-22-4	ug/L			5	U			5	U			5	U				
Sodium	SW6010	7440-23-5	ug/L			36000	J-			32000				32000					
Thallium	SW6010	7440-28-0	ug/L			20	U			20	U			20	U				
Vanadium	SW6010	7440-62-2	ug/L			10	U			10	U			10	U				
Zinc	SW6010	7440-66-6	ug/L			50	U			50	U			50	U				

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-7
2019-2021 Surface Water Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-3		CSW-3		CSW-3		CSW-3		CSW-3		CSW-3		CSW-3		CSW-3	
			Sample Date	5/7/2020		6/10/2020		6/10/2020		7/1/2020		7/8/2020		7/15/2020		9/28/2020		9/28/2020	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C050720-CSW3		C061020-CSW3		C061020-CSW3		C070120-CSW3		C070820-CSW3		C071520-CSW3		C092820-CSW3		C092820-CSW3	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		D		T		T		T		T		D		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	SW6010	7429-90-5	ug/L			200	U									200	U		
Antimony	SW6010	7440-36-0	ug/L			20	U									20	U		
Arsenic	SW6010	7440-38-2	ug/L			10	U									10	U		
Barium	SW6010	7440-39-3	ug/L			20										21			
Beryllium	SW6010	7440-41-7	ug/L			1	U									1	U		
Cadmium	SW6010	7440-43-9	ug/L			1	U									1	U		
Calcium	SW6010	7440-70-2	ug/L			22000										25000			
Chromium	SW6010	7440-47-3	ug/L			140				250		230		260		830		930	
Cobalt	SW6010	7440-48-4	ug/L			4	U									4	U		
Copper	SW6010	7440-50-8	ug/L			10										11			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	U			120		10	U	10	U	96				880	
Iron	SW6010	7439-89-6	ug/L			50	U			9300		1900		870		23	J	400	
Lead	SW6010	7439-92-1	ug/L			5	U									5	U		
Magnesium	SW6010	7439-95-4	ug/L			1700										1900			
Manganese	SW6010	7439-96-5	ug/L			100										33			
Mercury	SW7470	7439-97-6	ug/L			0.2	U									0.2	U		
Nickel	SW6010	7440-02-0	ug/L			1.8	J									1.4	J		
Potassium	SW6010	2023695	ug/L			3300										3600			
Selenium	SW6010	7782-49-2	ug/L			10	U									10	U		
Silver	SW6010	7440-22-4	ug/L			5	U									5	U		
Sodium	SW6010	7440-23-5	ug/L			20000										22000			
Thallium	SW6010	7440-28-0	ug/L			20	U									20	U		
Vanadium	SW6010	7440-62-2	ug/L			10	U									10	U		
Zinc	SW6010	7440-66-6	ug/L			50	U									50	U		

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-7
2019-2021 Surface Water Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-3		CSW-3		CSW-3		CSW-3		CSW-3		CSW-3		CSW-3		CSW-3	
			Sample Date	11/2/2020		12/21/2020		12/21/2020		4/5/2021		4/5/2021		6/16/2021		6/16/2021		9/27/2021	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C110220-CSW3		C122120-CSW3		C122120-CSW3		C04521-CSW3		C04521-CSW3		C061621-CSW3		C061621-CSW3		C092721-CSW3	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		D		T		D		T		D		T		D	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	SW6010	7429-90-5	ug/L			200	U			200	U			200	U			200	U
Antimony	SW6010	7440-36-0	ug/L			20	U			20	U			20	U			20	U
Arsenic	SW6010	7440-38-2	ug/L			10	U			10	U			10	U			10	U
Barium	SW6010	7440-39-3	ug/L			22				20				23				20	
Beryllium	SW6010	7440-41-7	ug/L			1	U			1	U			1	U			1	U
Cadmium	SW6010	7440-43-9	ug/L			1	U			1	U			1	U			1	U
Calcium	SW6010	7440-70-2	ug/L			27000				25000				28000				27000	
Chromium	SW6010	7440-47-3	ug/L	170		26		42		25		28		68		66		28	
Cobalt	SW6010	7440-48-4	ug/L			4	U			4	U			4	U			4	U
Copper	SW6010	7440-50-8	ug/L			2.4	J			3.2	J			6.5	J			2.9	J
Hexavalent Chromium	SW7196	18540-29-9	ug/L	140	J			48				7.3	J			55			
Iron	SW6010	7439-89-6	ug/L	49	J	50	U	990		50	U	69		27	J	29	J	26	J
Lead	SW6010	7439-92-1	ug/L			5	U			5	U			5	U			5	U
Magnesium	SW6010	7439-95-4	ug/L			2300				2000				2100				2100	
Manganese	SW6010	7439-96-5	ug/L			2.3	J			3	U			5.7				4.6	
Mercury	SW7470	7439-97-6	ug/L			0.2	U			0.2	U			0.2	U				
Nickel	SW6010	7440-02-0	ug/L			10	U			10	U			10	U			10	U
Potassium	SW6010	2023695	ug/L			3700				3300				3400				4000	
Selenium	SW6010	7782-49-2	ug/L			10	U			10	U			10	U			10	U
Silver	SW6010	7440-22-4	ug/L			5	U			5	U			5	U			5	U
Sodium	SW6010	7440-23-5	ug/L			34000				30000				29000				30000	
Thallium	SW6010	7440-28-0	ug/L			20	U			20	U			20	U			20	U
Vanadium	SW6010	7440-62-2	ug/L			10	U			10	U			10	U			10	U
Zinc	SW6010	7440-66-6	ug/L			5.2	J			50	U			50	U			50	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-7
2019-2021 Surface Water Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-3		CSW-3A		CSW-3A		CSW-3A		CSW-3A		CSW-3A		CSW-3A		CSW-3A	
			Sample Date	9/27/2021		12/19/2019		12/19/2019		4/6/2020		4/6/2020		6/10/2020		6/10/2020		9/28/2020	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C092721-CSW3		C121919-CSW3A		C121919-CSW3A		C040620-CSW3A		C040620-CSW3A		C061020-CSW3A		C061020-CSW3A		C092820-CSW3A	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		D		T		D		T		D		T		D	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	SW6010	7429-90-5	ug/L			200	U			200	U			200	U			200	U
Antimony	SW6010	7440-36-0	ug/L			20	U			20	U			20	U			20	U
Arsenic	SW6010	7440-38-2	ug/L			10	U			10	U			10	U			10	U
Barium	SW6010	7440-39-3	ug/L			21				22				19				21	
Beryllium	SW6010	7440-41-7	ug/L			1	U			1	U			1	U			1	U
Cadmium	SW6010	7440-43-9	ug/L			1	U			1	U			1	U			1	U
Calcium	SW6010	7440-70-2	ug/L			25000				26000				23000				25000	
Chromium	SW6010	7440-47-3	ug/L	29		16				15				130				840	
Cobalt	SW6010	7440-48-4	ug/L			4	U			4	U			4	U			4	U
Copper	SW6010	7440-50-8	ug/L			2.5	J			10	U			5.8	J			10	
Hexavalent Chromium	SW7196	18540-29-9	ug/L	32				22				33				120			
Iron	SW6010	7439-89-6	ug/L	78		50	U			30	J			50	U			26	J
Lead	SW6010	7439-92-1	ug/L			5	U			5	U			5	U			5	U
Magnesium	SW6010	7439-95-4	ug/L			2300				2100				1800				1900	
Manganese	SW6010	7439-96-5	ug/L			12				11				1.6	J			34	
Mercury	SW7470	7439-97-6	ug/L			0.2	U			0.2	U			0.2	U			0.2	U
Nickel	SW6010	7440-02-0	ug/L			10	U			10	U			1.3	J			1.5	J
Potassium	SW6010	2023695	ug/L			3600				3400				3600				3600	
Selenium	SW6010	7782-49-2	ug/L			10	U			10	U			10	U			10	U
Silver	SW6010	7440-22-4	ug/L			5	U			5	U			5	U			5	U
Sodium	SW6010	7440-23-5	ug/L			43000				38000				26000				22000	
Thallium	SW6010	7440-28-0	ug/L			20	U			20	U			20	U			20	U
Vanadium	SW6010	7440-62-2	ug/L			10	U			10	U			10	U			10	U
Zinc	SW6010	7440-66-6	ug/L			50	U			50	U			50	U			50	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-7
2019-2021 Surface Water Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-3A		CSW-3A		CSW-3A		CSW-3A		CSW-3A		CSW-3A		CSW-3A		CSW-3A	
			Sample Date	9/28/2020		12/21/2020		12/21/2020		12/21/2020		12/21/2020		4/5/2021		4/5/2021		6/16/2021	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C092820-CSW3A		C122120-CSW3A		C122120-CSW3A		C122120-CSW3A DUP		C122120-CSW3A DUP		C04521-CSW3A		C04521-CSW3A		C061621-CSW3A	
			QC Code	REG		REG		REG		FD		FD		REG		REG		REG	
			Filtered Flag	T		D		T		D		T		D		T		D	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	SW6010	7429-90-5	ug/L			200	U			200	U			200	U			200	U
Antimony	SW6010	7440-36-0	ug/L			20	U			20	U			20	U			20	U
Arsenic	SW6010	7440-38-2	ug/L			10	U			10	U			10	U			10	U
Barium	SW6010	7440-39-3	ug/L			23				22				22				22	
Beryllium	SW6010	7440-41-7	ug/L			1	U			1	U			1	U			1	U
Cadmium	SW6010	7440-43-9	ug/L			1	U			1	U			1	U			1	U
Calcium	SW6010	7440-70-2	ug/L			28000				27000				27000				28000	
Chromium	SW6010	7440-47-3	ug/L			25				26				27				71	
Cobalt	SW6010	7440-48-4	ug/L			4	U			4	U			4	U			4	U
Copper	SW6010	7440-50-8	ug/L			3.1	J			2.1	J			10	U			6.3	J
Hexavalent Chromium	SW7196	18540-29-9	ug/L	350				42				35				9.7	J		
Iron	SW6010	7439-89-6	ug/L			50	U			50	U			50	U			22	J
Lead	SW6010	7439-92-1	ug/L			5	U			5	U			5	U			5	U
Magnesium	SW6010	7439-95-4	ug/L			2400				2300				2200				2200	
Manganese	SW6010	7439-96-5	ug/L			1.9	J			2	J			3	U			5	
Mercury	SW7470	7439-97-6	ug/L			0.2	U			0.2	U			0.2	U			0.2	U
Nickel	SW6010	7440-02-0	ug/L			10	U			10	U			10	U			10	U
Potassium	SW6010	2023695	ug/L			3800				3700				3500				3400	
Selenium	SW6010	7782-49-2	ug/L			10	U			10	U			10	U			10	U
Silver	SW6010	7440-22-4	ug/L			5	U			5	U			5	U			5	U
Sodium	SW6010	7440-23-5	ug/L			40000				38000				38000				34000	
Thallium	SW6010	7440-28-0	ug/L			20	U			20	U			20	U			20	U
Vanadium	SW6010	7440-62-2	ug/L			10	U			10	U			10	U			10	U
Zinc	SW6010	7440-66-6	ug/L			7.1	J			6.9	J			50	U			50	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-7
2019-2021 Surface Water Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-3A		CSW-3A		CSW-3A		CSW-4		CSW-4		CSW-4		CSW-4		CSW-4	
			Sample Date	6/16/2021		9/27/2021		9/27/2021		12/19/2019		12/19/2019		4/6/2020		4/6/2020		12/21/2020	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C061621-CSW3A		C092721-CSW3A		C092721-CSW3A		C121919-CSW4		C121919-CSW4		C040620-CSW4		C040620-CSW4		C122120-CSW4	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		D		T		D		T		D		T		D	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	SW6010	7429-90-5	ug/L			200	U			200	U			200	U			200	U
Antimony	SW6010	7440-36-0	ug/L			20	U			20	U			20	U			20	U
Arsenic	SW6010	7440-38-2	ug/L			10	U			10	U			10	U			10	U
Barium	SW6010	7440-39-3	ug/L			19				21				22				23	
Beryllium	SW6010	7440-41-7	ug/L			1	U			1	U			1	U			1	U
Cadmium	SW6010	7440-43-9	ug/L			1	U			1	U			1	U			1	U
Calcium	SW6010	7440-70-2	ug/L			27000				26000				26000				27000	
Chromium	SW6010	7440-47-3	ug/L			31				16				15				27	
Cobalt	SW6010	7440-48-4	ug/L			4	U			4	U			4	U			4	U
Copper	SW6010	7440-50-8	ug/L			4.1	J			2.7	J			2.1	J			3.4	J
Hexavalent Chromium	SW7196	18540-29-9	ug/L	63				19				9.4	J			39			
Iron	SW6010	7439-89-6	ug/L			25	J			50	U			40	J			50	U
Lead	SW6010	7439-92-1	ug/L			5	U			5	U			5	U			5	U
Magnesium	SW6010	7439-95-4	ug/L			2100				2300				2100				2400	
Manganese	SW6010	7439-96-5	ug/L			7.1				7.1				5.6				1.4	J
Mercury	SW7470	7439-97-6	ug/L							0.2	U			0.2	U			0.2	U
Nickel	SW6010	7440-02-0	ug/L			10	U			10	U			10	U			10	U
Potassium	SW6010	2023695	ug/L			3700				3800				3300				3800	
Selenium	SW6010	7782-49-2	ug/L			10	U			10	U			10	U			10	U
Silver	SW6010	7440-22-4	ug/L			5	U			5	U			5	U			5	U
Sodium	SW6010	7440-23-5	ug/L			30000				44000				38000				41000	
Thallium	SW6010	7440-28-0	ug/L			20	U			20	U			20	U			20	U
Vanadium	SW6010	7440-62-2	ug/L			10	U			10	U			10	U			10	U
Zinc	SW6010	7440-66-6	ug/L			50	U			50	U			50	U			5.7	J

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-7
2019-2021 Surface Water Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-4		CSW-4		CSW-4		CSW-4		CSW-4		CSW-4		CSW-4		CSW-5	
			Sample Date	12/21/2020		4/5/2021		4/5/2021		6/16/2021		6/16/2021		9/27/2021		9/27/2021		12/19/2019	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C122120-CSW4		C040521-CSW4		C040521-CSW4		C061621-CSW4		C061621-CSW4		C092721-CSW4		C092721-CSW4		C121919-CSW5	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		D		T		D		T		D		T		D	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	SW6010	7429-90-5	ug/L			200	U			200	U			200	U			200	U
Antimony	SW6010	7440-36-0	ug/L			20	U			20	U			20	U			20	U
Arsenic	SW6010	7440-38-2	ug/L			10	U			10	U			10	U			10	U
Barium	SW6010	7440-39-3	ug/L			22				21				20				19	
Beryllium	SW6010	7440-41-7	ug/L			1	U			1	U			1	U			1	U
Cadmium	SW6010	7440-43-9	ug/L			1	U			1	U			1	U			1	U
Calcium	SW6010	7440-70-2	ug/L			27000				27000				27000				25000	
Chromium	SW6010	7440-47-3	ug/L			26				59				31				14	
Cobalt	SW6010	7440-48-4	ug/L			4	U			4	U			4	U			4	U
Copper	SW6010	7440-50-8	ug/L			1.8	J			4.3	J			3.7	J			5.9	J
Hexavalent Chromium	SW7196	18540-29-9	ug/L	52				12				56				34			
Iron	SW6010	7439-89-6	ug/L			50	U			20	J			22	J			110	
Lead	SW6010	7439-92-1	ug/L			5	U			5	U			5	U			5	U
Magnesium	SW6010	7439-95-4	ug/L			2200				2100				2100				2200	
Manganese	SW6010	7439-96-5	ug/L			3	U			1.7	J			2.3	J			5	
Mercury	SW7470	7439-97-6	ug/L			0.2	U			0.2	U							0.2	U
Nickel	SW6010	7440-02-0	ug/L			10	U			10	U			10	U			10	U
Potassium	SW6010	2023695	ug/L			3300				3300				3700				3600	
Selenium	SW6010	7782-49-2	ug/L			10	U			10	U			10	U			10	U
Silver	SW6010	7440-22-4	ug/L			5	U			5	U			5	U			5	U
Sodium	SW6010	7440-23-5	ug/L			38000				33000				31000				43000	
Thallium	SW6010	7440-28-0	ug/L			20	U			20	U			20	U			20	U
Vanadium	SW6010	7440-62-2	ug/L			10	U			10	U			10	U			10	U
Zinc	SW6010	7440-66-6	ug/L			50	U			50	U			50	U			50	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-7
2019-2021 Surface Water Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-5		CSW-5		CSW-5		CSW-5		CSW-5		CSW-5		CSW-5		CSW-5	
			Sample Date	12/19/2019		4/6/2020		4/6/2020		6/10/2020		6/10/2020		12/21/2020		12/21/2020		4/5/2021	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C121919-CSW5		C040620-CSW5		C040620-CSW5		C061020-CSW5		C061020-CSW5		C122120-CSW5		C122120-CSW5		C040521-CSW5	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		D		T		D		T		D		T		D	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	SW6010	7429-90-5	ug/L			200	U			200	U			200	U			200	U
Antimony	SW6010	7440-36-0	ug/L			20	U			20	U			20	U			20	U
Arsenic	SW6010	7440-38-2	ug/L			10	U			10	U			10	U			10	U
Barium	SW6010	7440-39-3	ug/L			21				17				19				20	
Beryllium	SW6010	7440-41-7	ug/L			1	U			1	U			1	U			1	U
Cadmium	SW6010	7440-43-9	ug/L			1	U			1	U			1	U			1	U
Calcium	SW6010	7440-70-2	ug/L			26000				27000				26000				26000	
Chromium	SW6010	7440-47-3	ug/L			14				10				20				17	
Cobalt	SW6010	7440-48-4	ug/L			4	U			4	U			4	U			4	U
Copper	SW6010	7440-50-8	ug/L			6.8	J			4.1	J			11				8.5	J
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	U			24				10	U			30			
Iron	SW6010	7439-89-6	ug/L			20	J			50	U			50	U			50	U
Lead	SW6010	7439-92-1	ug/L			5	U			5	U			5	U			5	U
Magnesium	SW6010	7439-95-4	ug/L			2100				2000				2200				2100	
Manganese	SW6010	7439-96-5	ug/L			2.9	J			0.55	J			3.7				3.8	
Mercury	SW7470	7439-97-6	ug/L			0.2	U			0.2	U			0.2	U			0.2	U
Nickel	SW6010	7440-02-0	ug/L			10	U			10	U			10	U			10	U
Potassium	SW6010	2023695	ug/L			3300				2800				3600				3400	
Selenium	SW6010	7782-49-2	ug/L			10	U			10	U			10	U			10	U
Silver	SW6010	7440-22-4	ug/L			5	U			5	U			5	U			5	U
Sodium	SW6010	7440-23-5	ug/L			37000				34000				33000				40000	
Thallium	SW6010	7440-28-0	ug/L			20	U			20	U			20	U			20	U
Vanadium	SW6010	7440-62-2	ug/L			10	U			10	U			10	U			10	U
Zinc	SW6010	7440-66-6	ug/L			50	U			50	U			4.8	J			50	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-7
2019-2021 Surface Water Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-5		CSW-5		CSW-5		CSW-5		CSW-5	
			Sample Date	4/5/2021		6/16/2021		6/16/2021		9/27/2021		9/27/2021	
			Media	SW		SW		SW		SW		SW	
			Field Sample ID	C040521-CSW5		C061621-CSW5		C061621-CSW5		C092721-CSW5		C092721-CSW5	
			QC Code	REG		REG		REG		REG		REG	
			Filtered Flag	T		D		T		D		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	SW6010	7429-90-5	ug/L			200	U			200	U		
Antimony	SW6010	7440-36-0	ug/L			20	U			20	U		
Arsenic	SW6010	7440-38-2	ug/L			10	U			10	U		
Barium	SW6010	7440-39-3	ug/L			21				20			
Beryllium	SW6010	7440-41-7	ug/L			1	U			1	U		
Cadmium	SW6010	7440-43-9	ug/L			1	U			1	U		
Calcium	SW6010	7440-70-2	ug/L			27000				27000			
Chromium	SW6010	7440-47-3	ug/L			6.6				9.2			
Cobalt	SW6010	7440-48-4	ug/L			4	U			4	U		
Copper	SW6010	7440-50-8	ug/L			14				15			
Hexavalent Chromium	SW7196	18540-29-9	ug/L	10	U			10	U			9.4	J
Iron	SW6010	7439-89-6	ug/L			50	U			29	J		
Lead	SW6010	7439-92-1	ug/L			5	U			5	U		
Magnesium	SW6010	7439-95-4	ug/L			2000				2100			
Manganese	SW6010	7439-96-5	ug/L			5.6				120			
Mercury	SW7470	7439-97-6	ug/L			0.2	U						
Nickel	SW6010	7440-02-0	ug/L			1.5	J			1.6	J		
Potassium	SW6010	2023695	ug/L			3000				3600			
Selenium	SW6010	7782-49-2	ug/L			10	U			10	U		
Silver	SW6010	7440-22-4	ug/L			5	U			5	U		
Sodium	SW6010	7440-23-5	ug/L			36000				32000			
Thallium	SW6010	7440-28-0	ug/L			20	U			20	U		
Vanadium	SW6010	7440-62-2	ug/L			10	U			10	U		
Zinc	SW6010	7440-66-6	ug/L			50	U			50	U		

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-8
2019-2021 Surface Water Analytical Data - General Chemistry
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-2		CSW-2		CSW-2		CSW-2		CSW-2		CSW-3		CSW-3		CSW-3	
			Sample Date	11/2/2020		12/21/2020		4/5/2021		6/16/2021		9/27/2021		7/1/2020		7/8/2020		7/15/2020	
			Media	SW		SW		SW		SW		SW		SW		SW		SW	
			Field Sample ID	C110220-CSW2		C122120-CSW2		C04521-CSW2		C061621-CSW2		C092721-CSW2		C070120-CSW3		C070820-CSW3		C071520-CSW3	
			QC Code	REG		REG		REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Alkalinity	SM2320B	ALK	ug/L											76000				81000	
Alkalinity Total	SM2320B	ALKALINITY	ug/L	35000		41000		57000		73000		79000		76000		79000		81000	
Bicarbonate Alkalinity	SM2320B	ALKB	ug/L	35000		41000		57000		73000		79000		76000		79000		81000	
Carbonate Alkalinity	SM2320B	ALKC	ug/L	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U
Methane	RSK175	74-82-8	ug/L	4	U	4	U	4	U	4	U	4	U	6.3		2.8	J	6.8	
Nitrogen, Nitrate	E300.0	14797-55-8	ug/L									250						510	
Nitrogen, Nitrate	E353.2	14797-55-8	ug/L	240		730		310		170				540		580			
Sulfate	E300.0	14808-79-8	ug/L	34000		26000		13000		6800		6300		14000		14000		15000	

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-8
2019-2021 Surface Water Analytical Data - General Chemistry
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-3		CSW-3		CSW-3		CSW-3		CSW-3		CSW-3	
			Sample Date	9/28/2020		11/2/2020		12/21/2020		4/5/2021		6/16/2021		9/27/2021	
			Media	SW		SW		SW		SW		SW		SW	
			Field Sample ID	C092820-CSW3		C110220-CSW3		C122120-CSW3		C04521-CSW3		C061621-CSW3		C092721-CSW3	
			QC Code	REG		REG		REG		REG		REG		REG	
			Filtered Flag	T		T		T		T		T		T	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Alkalinity	SM2320B	ALK	ug/L												
Alkalinity Total	SM2320B	ALKALINITY	ug/L	87000		48000		43000		58000		70000		79000	
Bicarbonate Alkalinity	SM2320B	ALKB	ug/L	87000		48000		43000		58000		70000		79000	
Carbonate Alkalinity	SM2320B	ALKC	ug/L	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U
Methane	RSK175	74-82-8	ug/L	11		4	U	4	U	4	U	4	U	1.1	J
Nitrogen, Nitrate	E300.0	14797-55-8	ug/L	560										230	
Nitrogen, Nitrate	E353.2	14797-55-8	ug/L			620	J	750		360		200			
Sulfate	E300.0	14808-79-8	ug/L	18000		26000		25000		13000		8400		6900	

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/L: microgram per liter

Table A-9
Sediment Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSD-1		CSD-3		CSD-3A		CSD-5		CSD-BKG001	
			Sample Date	7/2/2018		7/2/2018		7/2/2018		7/2/2018		7/2/2018	
			Media	SED		SED		SED		SED		SED	
			Field Sample ID	C070218-CSD1		C070218-CSD3		C070218-CSD3A		C070218-CSD5		C070218-CSDBKG-001	
			QC Code	REG		REG		REG		REG		REG	
			Filtered Flag	NA		NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	SW8260	630-20-6	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,1,1-Trichloroethane	SW8260	71-55-6	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,1,2,2-Tetrachloroethane	SW8260	79-34-5	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,1,2-Trichloroethane	SW8260	79-00-5	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,1-Dichloroethane	SW8260	75-34-3	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,1-Dichloroethene	SW8260	75-35-4	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,1-Dichloropropene	SW8260	563-58-6	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,2,3-Trichlorobenzene	SW8260	87-61-6	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,2,3-Trichloropropane	SW8260	96-18-4	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,2,4-Trichlorobenzene	SW8260	120-82-1	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,2,4-Trimethylbenzene	SW8260	95-63-6	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,2-Dibromo-3-Chloropropane	SW8260	96-12-8	ug/kg	14	U	13	U	17	U	20	U	22	U
1,2-Dibromoethane	SW8260	106-93-4	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,2-Dichlorobenzene	SW8260	95-50-1	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,2-Dichloroethane	SW8260	107-06-2	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,2-Dichloropropane	SW8260	78-87-5	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,3,5-Trimethylbenzene	SW8260	108-67-8	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,3-Dichlorobenzene	SW8260	541-73-1	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,3-Dichloropropane	SW8260	142-28-9	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U

Table A-9
Sediment Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSD-1		CSD-3		CSD-3A		CSD-5		CSD-BKG001	
			Sample Date	7/2/2018		7/2/2018		7/2/2018		7/2/2018		7/2/2018	
			Media	SED		SED		SED		SED		SED	
			Field Sample ID	C070218-CSD1		C070218-CSD3		C070218-CSD3A		C070218-CSD5		C070218-CSDBKG-001	
			QC Code	REG		REG		REG		REG		REG	
			Filtered Flag	NA		NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,4-Dichlorobenzene	SW8260	106-46-7	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
1,4-Dioxane	SW8260	123-91-1	ug/kg	140	U	130	U	170	U	200	U	220	U
2,2-Dichloropropane	SW8260	594-20-7	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
2-Butanone	SW8260	78-93-3	ug/kg	14	U	13	U	17	U	20	U	6.9	J
2-Chlorotoluene	SW8260	95-49-8	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
2-Hexanone	SW8260	591-78-6	ug/kg	14	U	13	U	17	U	20	U	22	U
4-Chlorotoluene	SW8260	106-43-4	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
4-Methyl-2-Pentanone	SW8260	108-10-1	ug/kg	14	U	13	U	17	U	20	U	22	U
Acetone	SW8260	67-64-1	ug/kg	140	U	130	U	170	U	13	J	34	J
Benzene	SW8260	71-43-2	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Bromobenzene	SW8260	108-86-1	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Bromochloromethane	SW8260	74-97-5	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Bromodichloromethane	SW8260	75-27-4	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Bromoform	SW8260	75-25-2	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Bromomethane	SW8260	74-83-9	ug/kg	2.9	UJ	2.6	UJ	3.5	UJ	4.1	UJ	4.3	UJ
Butylbenzene	SW8260	104-51-8	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Carbon Disulfide	SW8260	75-15-0	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Carbon Tetrachloride	SW8260	56-23-5	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Chlorobenzene	SW8260	108-90-7	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Chloroethane	SW8260	75-00-3	ug/kg	2.9	UJ	2.6	UJ	3.5	UJ	4.1	UJ	4.3	UJ
Chloroform	SW8260	67-66-3	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Chloromethane	SW8260	74-87-3	ug/kg	2.9	UJ	2.6	UJ	3.5	UJ	4.1	UJ	4.3	UJ
cis-1,2-Dichloroethene	SW8260	156-59-2	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
cis-1,3-Dichloropropene	SW8260	10061-01-5	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Dibromochloromethane	SW8260	124-48-1	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Dibromomethane	SW8260	74-95-3	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Dichlorodifluoromethane	SW8260	75-71-8	ug/kg	2.9	UJ	2.6	UJ	3.5	UJ	4.1	UJ	4.3	UJ
Diethyl Ether	SW8260	60-29-7	ug/kg	2.9	UJ	2.6	UJ	3.5	UJ	4.1	UJ	4.3	UJ
Di-Isopropyl Ether (DIPE)	SW8260	108-20-3	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U

Table A-9
Sediment Analytical Data - VOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSD-1		CSD-3		CSD-3A		CSD-5		CSD-BKG001	
			Sample Date	7/2/2018		7/2/2018		7/2/2018		7/2/2018		7/2/2018	
			Media	SED		SED		SED		SED		SED	
			Field Sample ID	C070218-CSD1		C070218-CSD3		C070218-CSD3A		C070218-CSD5		C070218-CSDBKG-001	
			QC Code	REG		REG		REG		REG		REG	
			Filtered Flag	NA		NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Ethyl Tert-Butyl Ether (ETBE)	SW8260	637-92-3	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Ethylbenzene	SW8260	100-41-4	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Hexachlorobutadiene	SW8260	87-68-3	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Isopropylbenzene	SW8260	98-82-8	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
m&p-Xylenes	SW8260	XYLENES1314	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Methyl Tert-Butyl Ether	SW8260	1634-04-4	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Methylene Chloride	SW8260	75-09-2	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Naphthalene	SW8260	91-20-3	ug/kg	14	U	13	U	17	U	20	U	22	U
n-Propylbenzene	SW8260	103-65-1	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
o-Xylene	SW8260	95-47-6	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
p-Isopropyltoluene	SW8260	99-87-6	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Sec-Butylbenzene	SW8260	135-98-8	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Styrene	SW8260	100-42-5	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
tert-Amyl Methyl Ether (TAME)	SW8260	994-05-8	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Tert-Butylbenzene	SW8260	98-06-6	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Tetrachloroethene	SW8260	127-18-4	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Tetrahydrofuran	SW8260	109-99-9	ug/kg	29	U	26	U	35	U	41	U	43	U
Toluene	SW8260	108-88-3	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
trans-1,2-Dichloroethene	SW8260	156-60-5	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
trans-1,3-Dichloropropene	SW8260	10061-02-6	ug/kg	2.9	U	2.6	U	3.5	U	4.1	U	4.3	U
Trichloroethene	SW8260	79-01-6	ug/kg	2.9	U	4.2		2.5	J	1.6	J	4.3	U
Trichlorofluoromethane	SW8260	75-69-4	ug/kg	2.9	UJ	2.6	UJ	3.5	UJ	4.1	UJ	4.3	UJ
Vinyl Chloride	SW8260	75-01-4	ug/kg	2.9	UJ	2.6	UJ	3.5	UJ	4.1	UJ	4.3	UJ

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/kg: microgram per kilogram
VOCs: volatile organic compounds

Prepared By: DP 9/2/2020
Checked By: CF 9/4/2020

Table A-10
Sediment Analytical Data - SVOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location	CSD-1		CSD-3		CSD-3A		CSD-5		CSD-BKG001	
				Sample Date	7/2/2018		7/2/2018		7/2/2018		7/2/2018		7/2/2018	
				Media	SED		SED		SED		SED		SED	
				Field Sample ID	C070218-CSD1		C070218-CSD3		C070218-CSD3A		C070218-CSD5		C070218-CSDBKG-001	
				QC Code	REG		REG		REG		REG		REG	
				Filtered Flag	NA		NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,2,4-Trichlorobenzene	SW8270	120-82-1	ug/kg	370	U	3900	U	3900	U	2000	U	1900	U
1,2-Dichlorobenzene	SW8270	95-50-1	ug/kg	370	U	3900	U	3900	U	2000	U	1900	U
1,3-Dichlorobenzene	SW8270	541-73-1	ug/kg	370	U	3900	U	3900	U	2000	U	1900	U
1,4-Dichlorobenzene	SW8270	106-46-7	ug/kg	370	U	3900	U	3900	U	2000	U	1900	U
2,2'-Oxybis(1-Chloropropane)	SW8270	108-60-1	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
2,4,5-Trichlorophenol	SW8270	95-95-4	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
2,4,6-Trichlorophenol	SW8270	88-06-2	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
2,4-Dichlorophenol	SW8270	120-83-2	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
2,4-Dimethylphenol	SW8270	105-67-9	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
2,4-Dinitrophenol	SW8270	51-28-5	ug/kg	1800	U	20000	U	20000	U	9900	U	9700	U
2,4-Dinitrotoluene	SW8270	121-14-2	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
2,6-Dinitrotoluene	SW8270	606-20-2	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
2-Chloronaphthalene	SW8270	91-58-7	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
2-Chlorophenol	SW8270	95-57-8	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
2-Methylnaphthalene	SW8270	91-57-6	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
2-Methylphenol	SW8270	95-48-7	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
2-Nitrophenol	SW8270	88-75-5	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
3&4-Methylphenol	SW8270	34METPH	ug/kg	370	U	3900	U	3900	U	2000	U	1900	U
3,3'-Dichlorobenzidine	SW8270	91-94-1	ug/kg	370	U	3900	U	3900	U	2000	U	1900	U
3-Methylphenol	SW8270	108-39-4	ug/kg	370	U	3900	U	3900	U	2000	U	1900	U
4-Bromophenyl Phenyl Ether	SW8270	101-55-3	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
4-Chloroaniline	SW8270	106-47-8	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
4-Methylphenol	SW8270	106-44-5	ug/kg	370	U	3900	U	3900	U	2000	U	1900	U
4-Nitrophenol	SW8270	100-02-7	ug/kg	370	U	3900	U	3900	U	2000	U	1900	U
Acenaphthene	SW8270	83-32-9	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
Acenaphthylene	SW8270	208-96-8	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
Acetophenone	SW8270	98-86-2	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
Aniline	SW8270	62-53-3	ug/kg	370	UJ	3900	U	3900	U	2000	U	1900	U
Anthracene	SW8270	120-12-7	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
Azobenzene	SW8270	103-33-3	ug/kg	370	U	3900	U	3900	U	2000	U	1900	U
Benzo(A)Anthracene	SW8270	56-55-3	ug/kg	180	J	2000	U	2000	U	1000	U	990	U
Benzo(A)Pyrene	SW8270	50-32-8	ug/kg	180	J	2000	U	2000	U	1000	U	990	U
Benzo(B)Fluoranthene	SW8270	205-99-2	ug/kg	220		2000	U	2000	U	1000	U	990	U
Benzo(G,H,I)perylene	SW8270	191-24-2	ug/kg	120	J	2000	U	2000	U	1000	U	990	U
Benzo(K)Fluoranthene	SW8270	207-08-9	ug/kg	85	J	2000	U	2000	U	1000	U	990	U
bis-(2-Chloroethoxy)Methane	SW8270	111-91-1	ug/kg	190	U	2000	U	2000	U	1000	U	990	U
bis-(2-Chloroethyl)Ether	SW8270	111-44-4	ug/kg	190	U	2000	U	2000	U	1000	U	990	U

Table A-10
Sediment Analytical Data - SVOCs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

				Location		CSD-1		CSD-3		CSD-3A		CSD-5		CSD-BKG001	
				Sample Date		7/2/2018		7/2/2018		7/2/2018		7/2/2018		7/2/2018	
				Media		SED		SED		SED		SED		SED	
				Field Sample ID		C070218-CSD1		C070218-CSD3		C070218-CSD3A		C070218-CSD5		C070218-CSDBKG-001	
				QC Code		REG		REG		REG		REG		REG	
				Filtered Flag		NA		NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
bis-(2-Ethylhexyl)Phthalate	SW8270	117-81-7	ug/kg	190	U	2000	U	2000	U	1000	U	990	U		
Butylbenzyl Phthalate	SW8270	85-68-7	ug/kg	190	U	2000	U	2000	U	1000	U	990	U		
Chrysene	SW8270	218-01-9	ug/kg	190		2000	U	2000	U	1000	U	990	U		
Dibenzo(a,h)Anthracene	SW8270	53-70-3	ug/kg	190	U	2000	U	2000	U	1000	U	990	U		
Dibenzofuran	SW8270	132-64-9	ug/kg	190	U	2000	U	2000	U	1000	U	990	U		
Diethyl Phthalate	SW8270	84-66-2	ug/kg	190	U	2000	U	2000	U	1000	U	990	U		
Dimethyl Phthalate	SW8270	131-11-3	ug/kg	190	U	2000	U	2000	U	1000	U	990	U		
Di-n-Butyl Phthalate	SW8270	84-74-2	ug/kg	190	U	2000	U	2000	U	1000	U	990	U		
Di-n-Octyl Phthalate	SW8270	117-84-0	ug/kg	190	U	2000	U	2000	U	1000	U	990	U		
Fluoranthene	SW8270	206-44-0	ug/kg	380		2000	U	2000	U	1000	U	990	U		
Fluorene	SW8270	86-73-7	ug/kg	190	U	2000	U	2000	U	1000	U	990	U		
Hexachlorobenzene	SW8270	118-74-1	ug/kg	190	U	2000	U	2000	U	1000	U	990	U		
Hexachlorobutadiene	SW8270	87-68-3	ug/kg	190	U	2000	U	2000	U	1000	U	990	U		
Hexachloroethane	SW8270	67-72-1	ug/kg	190	U	2000	U	2000	U	1000	U	990	U		
Indeno(1,2,3-Cd)Pyrene	SW8270	193-39-5	ug/kg	120	J	2000	U	2000	U	200	J	990	U		
Isophorone	SW8270	78-59-1	ug/kg	190	U	2000	U	2000	U	1000	U	990	U		
Naphthalene	SW8270	91-20-3	ug/kg	190	U	2000	U	2000	U	1000	U	990	U		
Nitrobenzene	SW8270	98-95-3	ug/kg	190	U	2000	U	2000	U	1000	U	990	U		
Pentachlorophenol	SW8270	87-86-5	ug/kg	370	U	3900	U	3900	U	2000	U	1900	U		
Phenanthrene	SW8270	85-01-8	ug/kg	180	J	2000	U	2000	U	1000	U	990	U		
Phenol	SW8270	108-95-2	ug/kg	190	U	2000	U	2000	U	1000	U	990	U		
Pyrene	SW8270	129-00-0	ug/kg	350		2000	U	2000	U	1000	U	990	U		

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/kg: microgram per kilogram
SVOCs: semi-volatile organic compounds

Prepared By: DP 9/2/2020
Checked By: CF 9/4/2020

Table A-11
Sediment Analytical Data - Pesticides
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSD-1		CSD-3		CSD-3A		CSD-5		CSD-BKG001	
			Sample Date	7/2/2018		7/2/2018		7/2/2018		7/2/2018		7/2/2018	
			Media	SED		SED		SED		SED		SED	
			Field Sample ID	C070218-CSD1		C070218-CSD3		C070218-CSD3A		C070218-CSD5		C070218-CSDBKG-001	
			QC Code	REG		REG		REG		REG		REG	
			Filtered Flag	NA		NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
4,4'-DDD	SW8081	72-54-8	ug/kg	38	U	76	U	82	U	41	U	39	U
4,4'-DDE	SW8081	72-55-9	ug/kg	38	U	76	U	82	U	7.3	J	39	U
4,4'-DDT	SW8081	50-29-3	ug/kg	38	U	76	U	82	U	4.3	J	39	U
Aldrin	SW8081	309-00-2	ug/kg	38	U	76	U	82	U	41	U	39	U
Alpha-BHC	SW8081	319-84-6	ug/kg	38	U	76	U	82	U	41	U	39	U
Beta-BHC	SW8081	319-85-7	ug/kg	38	U	76	U	82	U	41	U	9	J
Constituents Of Chlordane (Alpha, Beta, And Gamma)	SW8081	12789-03-6	ug/kg	750	U	1500	U	1600	U	820	U	780	U
Delta-BHC	SW8081	319-86-8	ug/kg	38	U	76	U	82	U	41	U	39	U
Dieldrin	SW8081	60-57-1	ug/kg	38	U	76	U	82	U	41	U	39	U
Endosulfan I	SW8081	959-98-8	ug/kg	38	U	76	U	82	U	41	U	39	U
Endosulfan Ii	SW8081	33213-65-9	ug/kg	38	U	76	U	82	U	41	U	39	U
Endosulfan Sulfate	SW8081	1031-07-8	ug/kg	38	U	76	U	82	U	41	U	39	U
Endrin	SW8081	72-20-8	ug/kg	38	U	76	U	82	U	41	U	39	U
Endrin Ketone	SW8081	53494-70-5	ug/kg	38	U	76	U	82	U	41	U	39	U
Gamma-BHC (Lindane)	SW8081	58-89-9	ug/kg	11	U	23	U	24	U	12	U	8	J
Heptachlor	SW8081	76-44-8	ug/kg	38	U	76	U	82	U	41	U	39	U
Heptachlor Epoxide	SW8081	1024-57-3	ug/kg	38	U	76	U	82	U	41	U	39	U
Hexachlorobenzene	SW8081	118-74-1	ug/kg	38	U	76	U	82	U	41	U	39	U
Methoxychlor	SW8081	72-43-5	ug/kg	38	U	76	U	82	U	41	U	39	U

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
ug/kg: microgram per kilogram

Prepared By: DP 9/2/2020
Checked By: CF 9/4/2020

Table A-12
Sediment Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSD-1		CSD-3		CSD-3A		CSD-5	
			Sample Date	7/2/2018		7/2/2018		7/2/2018		7/2/2018	
			Media	SED		SED		SED		SED	
			Field Sample ID	C070218-CSD1		C070218-CSD3		C070218-CSD3A		C070218-CSD5	
			QC Code	REG		REG		REG		REG	
			Filtered Flag	NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q
Antimony	SW6010	7440-36-0	mg/kg	0.57	U	0.59	U	0.63	U	0.64	U
Arsenic	SW6010	7440-38-2	mg/kg	6.3		19		12		21	
Barium	SW6010	7440-39-3	mg/kg	16		35		31		39	
Beryllium	SW6010	7440-41-7	mg/kg	0.08	J	0.21	J	0.18	J	0.25	J
Cadmium	SW6010	7440-43-9	mg/kg	0.23	U	0.03	J	0.13	J	0.15	J
Chromium	SW6010	7440-47-3	mg/kg	7.6		84		110		170	J
Copper	SW6010	7440-50-8	mg/kg								
Lead	SW6010	7439-92-1	mg/kg	3.8		9.3		17		24	
Mercury	SW7471	7439-97-6	mg/kg	0.02	U	0.02	U	0.02	U	0.02	J
Nickel	SW6010	7440-02-0	mg/kg	5.9		22		22		21	
Selenium	SW6010	7782-49-2	mg/kg	0.57	U	0.59	U	0.63	U	0.64	U
Silver	SW6010	7440-22-4	mg/kg	0.57	U	0.59	U	0.63	U	0.64	U
Thallium	SW6010	7440-28-0	mg/kg	1.1	U	1.2	U	1.3	U	1.3	U
Vanadium	SW6010	7440-62-2	mg/kg	5.6		16		15		17	
Zinc	SW6010	7440-66-6	mg/kg	15		39		64		38	

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram

Table A-12
Sediment Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSD-BKG001		CSW-1		CSW-12		CSW-12		CSW-2	
			Sample Date	7/2/2018		11/11/2005		11/11/2005		4/4/2007		11/11/2005	
			Media	SED		SED		SED		SED		SED	
			Field Sample ID	C070218-CSDBKG-001		C111105-CSW1-S1		C111105-CSW12-S1		C040407-CSW12		C111105-CSW2-S1	
			QC Code	REG		REG		REG		REG		REG	
			Filtered Flag	NA		NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Antimony	SW6010	7440-36-0	mg/kg	0.61	U								
Arsenic	SW6010	7440-38-2	mg/kg	14									
Barium	SW6010	7440-39-3	mg/kg	23									
Beryllium	SW6010	7440-41-7	mg/kg	0.12	J								
Cadmium	SW6010	7440-43-9	mg/kg	0.06	J								
Chromium	SW6010	7440-47-3	mg/kg	8.2		18		48.6		14		19.4	
Copper	SW6010	7440-50-8	mg/kg							8.2			
Lead	SW6010	7439-92-1	mg/kg	9						3.4			
Mercury	SW7471	7439-97-6	mg/kg	0.01	J								
Nickel	SW6010	7440-02-0	mg/kg	6.4									
Selenium	SW6010	7782-49-2	mg/kg	0.61	U								
Silver	SW6010	7440-22-4	mg/kg	0.61	U								
Thallium	SW6010	7440-28-0	mg/kg	1.2	U								
Vanadium	SW6010	7440-62-2	mg/kg	6.3									
Zinc	SW6010	7440-66-6	mg/kg	26									

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram

Table A-12
Sediment Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-2		CSW-3		CSW-4		CSW-4	
			Sample Date	4/4/2007		11/11/2005		11/11/2005		4/4/2007	
			Media	SED		SED		SED		SED	
			Field Sample ID	C040407-CSW2		C111105-CSW3-S1		C111105-CSW4-S1		C040407-CSW4	
			QC Code	REG		REG		REG		REG	
			Filtered Flag	NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q
Antimony	SW6010	7440-36-0	mg/kg								
Arsenic	SW6010	7440-38-2	mg/kg	27							
Barium	SW6010	7440-39-3	mg/kg								
Beryllium	SW6010	7440-41-7	mg/kg								
Cadmium	SW6010	7440-43-9	mg/kg								
Chromium	SW6010	7440-47-3	mg/kg			901		101			
Copper	SW6010	7440-50-8	mg/kg							72	
Lead	SW6010	7439-92-1	mg/kg								
Mercury	SW7471	7439-97-6	mg/kg								
Nickel	SW6010	7440-02-0	mg/kg								
Selenium	SW6010	7782-49-2	mg/kg								
Silver	SW6010	7440-22-4	mg/kg								
Thallium	SW6010	7440-28-0	mg/kg								
Vanadium	SW6010	7440-62-2	mg/kg								
Zinc	SW6010	7440-66-6	mg/kg								

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram

Table A-12
Sediment Analytical Data - Metals
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-5		CSW-5		CSW-7		CSW-8	
			Sample Date	11/11/2005		4/4/2007		11/11/2005		4/4/2007	
			Media	SED		SED		SED		SED	
			Field Sample ID	C111105-CSW5-S1		C040407-CSW5		C111105-CSW7-S1		C040407-CSW8	
			QC Code	REG		REG		REG		REG	
			Filtered Flag	NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q
Antimony	SW6010	7440-36-0	mg/kg								
Arsenic	SW6010	7440-38-2	mg/kg								
Barium	SW6010	7440-39-3	mg/kg								
Beryllium	SW6010	7440-41-7	mg/kg								
Cadmium	SW6010	7440-43-9	mg/kg								
Chromium	SW6010	7440-47-3	mg/kg	119		110		156		28	
Copper	SW6010	7440-50-8	mg/kg			170				9.2	
Lead	SW6010	7439-92-1	mg/kg			26				4.7	
Mercury	SW7471	7439-97-6	mg/kg								
Nickel	SW6010	7440-02-0	mg/kg								
Selenium	SW6010	7782-49-2	mg/kg								
Silver	SW6010	7440-22-4	mg/kg								
Thallium	SW6010	7440-28-0	mg/kg								
Vanadium	SW6010	7440-62-2	mg/kg								
Zinc	SW6010	7440-66-6	mg/kg								

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram

Prepared By: DP 9/2/2020
Checked By: CF 9/4/2020

Table A-13
Sediment Analytical Data - General Chemistry
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSD-1		CSD-3		CSD-3A		CSD-5	
			Sample Date	7/2/2018		7/2/2018		7/2/2018		7/2/2018	
			Media	SED		SED		SED		SED	
			Field Sample ID	C070218-CSD1		C070218-CSD3		C070218-CSD3A		C070218-CSD5	
			QC Code	REG		REG		REG		REG	
			Filtered Flag	NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q
Chromium III	SM3500Cr	16065-83-1	mg/kg	7.6		84		110		170	
Hexavalent Chromium	SW7196	18540-29-9	mg/kg	0.46	U	0.48	U	0.32	J	0.5	U
Percent Moisture At 105 Deg. C	E160.3	MOISTURE	%								
Solids	E160.3	SOLID	%								
Total Organic Carbon	LLOYD KAHN	TOC	mg/kg	7200		6700		3900		34000	

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram

Table A-13
Sediment Analytical Data - General Chemistry
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSD-BKG001		CSW-1		CSW-12		CSW-12	
			Sample Date	7/2/2018		11/11/2005		11/11/2005		4/4/2007	
			Media	SED		SED		SED		SED	
			Field Sample ID	C070218-CSDBKG-001		C111105-CSW1-S1		C111105-CSW12-S1		C040407-CSW12	
			QC Code	REG		REG		REG		REG	
			Filtered Flag	NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q
Chromium III	SM3500Cr	16065-83-1	mg/kg	8.2							
Hexavalent Chromium	SW7196	18540-29-9	mg/kg	0.48	U	0.51	UJ	0.79	UJ	2.2	UJ
Percent Moisture At 105 Deg. C	E160.3	MOISTURE	%							24	
Solids	E160.3	SOLID	%			78.4		50.7		76	
Total Organic Carbon	LLOYD KAHN	TOC	mg/kg	8700							

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram

Table A-13
Sediment Analytical Data - General Chemistry
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-2		CSW-2		CSW-3		CSW-4		CSW-4	
			Sample Date	11/11/2005		4/4/2007		11/11/2005		11/11/2005		4/4/2007	
			Media	SED		SED		SED		SED		SED	
			Field Sample ID	C111105-CSW2-S1		C040407-CSW2		C111105-CSW3-S1		C111105-CSW4-S1		C040407-CSW4	
			QC Code	REG		REG		REG		REG		REG	
			Filtered Flag	NA		NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Chromium III	SM3500Cr	16065-83-1	mg/kg										
Hexavalent Chromium	SW7196	18540-29-9	mg/kg	0.45	UJ			8.4	J	1.2	J		
Percent Moisture At 105 Deg. C	E160.3	MOISTURE	%			21						28	
Solids	E160.3	SOLID	%	89		79		76		80.6		72	
Total Organic Carbon	LLOYD KAHN	TOC	mg/kg										

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram

Table A-13
Sediment Analytical Data - General Chemistry
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

			Location	CSW-5		CSW-5		CSW-7		CSW-8	
			Sample Date	11/11/2005		4/4/2007		11/11/2005		4/4/2007	
			Media	SED		SED		SED		SED	
			Field Sample ID	C111105-CSW5-S1		C040407-CSW5		C111105-CSW7-S1		C040407-CSW8	
			QC Code	REG		REG		REG		REG	
			Filtered Flag	NA		NA		NA		NA	
Parameter	Method	CASNo	Units	Result	Q	Result	Q	Result	Q	Result	Q
Chromium III	SM3500Cr	16065-83-1	mg/kg								
Hexavalent Chromium	SW7196	18540-29-9	mg/kg	0.55	UJ	1.9	UJ	0.64	UJ	4.3	UJ
Percent Moisture At 105 Deg. C	E160.3	MOISTURE	%			28				35	
Solids	E160.3	SOLID	%	73.1		72		63		65	
Total Organic Carbon	LLOYD KAHN	TOC	mg/kg								

Abbreviations:
U: compound not detected; reporting limit is shown
J: estimated concentration
mg/kg: milligram per kilogram

Prepared By: DP 9/2/2020
Checked By: CF 9/4/2020

ATTACHMENT B

Attachment B-1: Background Evaluation
Arsenic Background Q-Q Plot
Arsenic Site Q-Q Plot with Outlier
GOF with Outliers
Outlier Tests with Outliers
Outlier Tests: Outliers Removed
Arsenic Site Q-Q Plot Outliers Removed
GOF Outliers Removed
Two Sample Hypothesis Testing WMW

Attachment B-2: BTV Calculation
Table B-2-1 Historic Fill Background Threshold Values
Step 1: Identification of Data Distribution
Step 2: Outlier Tests
Step 3: Calculated UTLs

Attachment B-3: Arsenic Data Set Evaluation
Arsenic Geochemical Evaluation

WSP USA Environment & Infrastructure Inc.
100 Apollo Drive, Suite 302
Chelmsford, MA 01824
USA

T: 978-692-9090

Attachment B-1

Re: **Site-versus-Background Arsenic Concentrations in Soil**

The process for determining if site concentrations are consistent with background is discussed below:

Information synthesized below was gathered from the ProUCL Version 5.0 Technical Guide as well as the ProUCL Version 5.1 User's Guide. Statistics computed using discrete data sets with small sample sizes (i.e < 6 samples) are not large enough to characterize background population therefore a minimum a background data set should have at least 10 observations to perform background evaluations. A defendable background population represents a "single" population without any outliers. Elevated statistical outliers present in a background data set may represent outliers coming from a population different from background population. Elevated outliers should not be included in background data sets and outlier tests should be performed to characterize the background population.

Q-Q plots should be used when identifying outliers in both the background and site dataset. Q-Q plots are used to identify outliers present in a data set and to visually compare two or more data sets, such as site-versus-background concentrations. On a Q-Q plot, observations well-separated from the majority of the data may represent potential outliers coming from a population different from the main dominant population (e.g., background population). In a Q-Q plot, jumps and breaks of significant magnitude suggest the presence of observations coming from multiple populations. On all Q-Q plots, ProUCL displays relevant statistics including: mean, standard deviation, GOF test statistic, associated critical value, p-value and the correlation coefficient. Q-Q plots can be used to get an idea about the number of outliers potentially present in a data set. This can help determine the suspected number of outliers needed to perform the Rosner test.

Dixon and Rosner tests are classic outlier tests used on a population to estimate outliers on uncensored data sets as well as left censored data sets containing non-detect observations. Dixon's test is used to identify outliers when the sample size is ≤ 25. This test identifies outliers or extreme values in the left and right tail of the data distribution. The Dixon test assumes that the data without the suspected outliers are normally distributed. This test tends to mask the presence of multiple outliers and may fail to identify all of the outliers. The Rosner test can be used to identify up to 10 outliers in data sets of sizes 25 and higher. Dixon and Rosner tests assume that the data set without the suspected outliers follow a normal distribution; that is for both Rosner and Dixon tests, the data set representing the main body of the data obtained after removing the outliers (and not the data set with outliers) needs to follow a normal distribution. Goodness-of-fit (GOF) tests can be performed to determine the distribution of the background dataset and the site dataset after outliers are removed. Once the distribution is determined hypothesis testing can occur.

Two sample hypothesis tests are needed to compare site parameters (i.e mean, shape, distribution) with background parameters (i.e mean, shape, distribution). Two-sample hypotheses tests are used to compare average concentrations of two or more populations. If a two-sample hypothesis testing

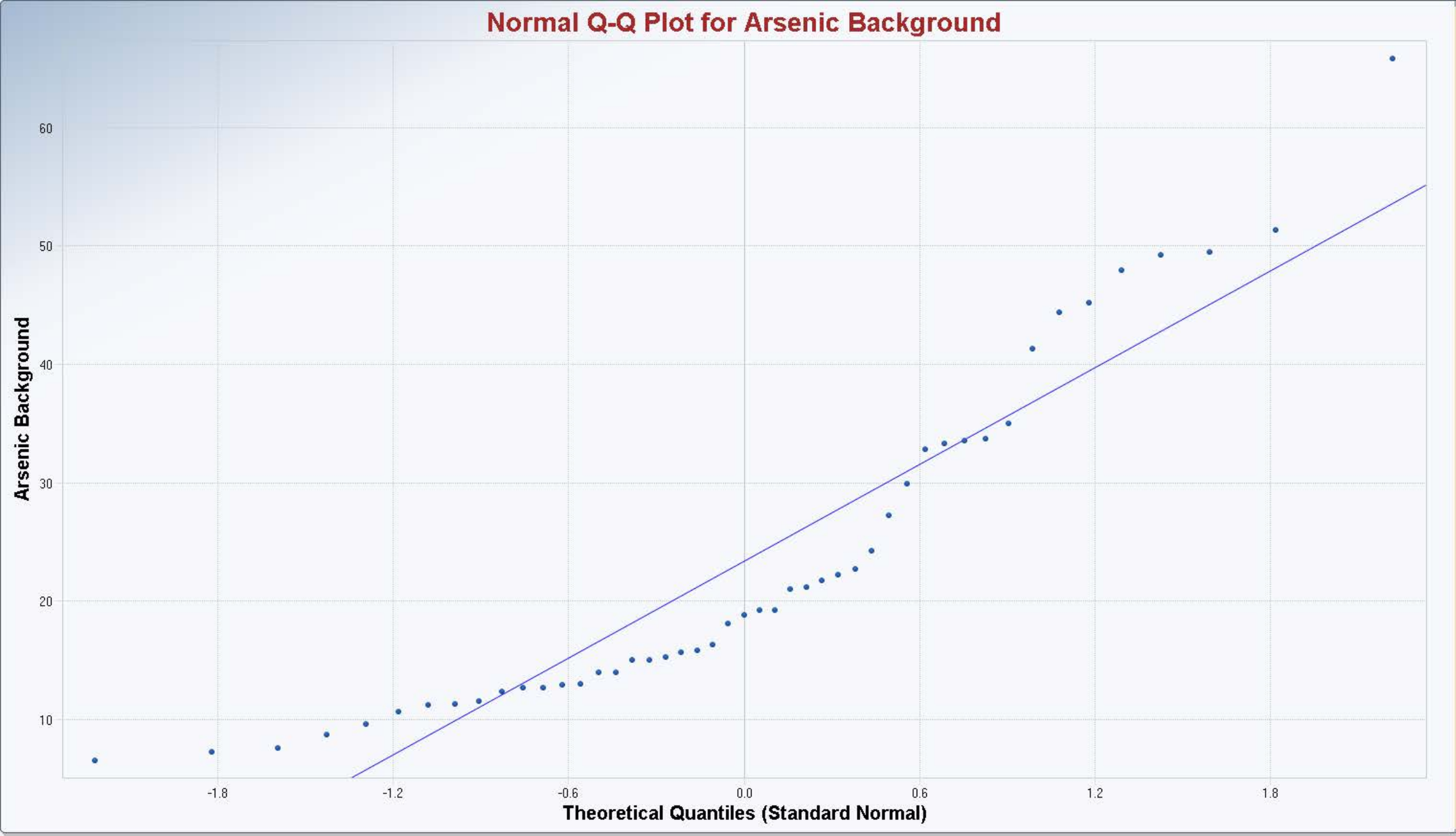
approach is used to perform site versus background comparisons, then samples from both of the populations should be either all discrete samples, or all composite samples. The two sample hypothesis testing approaches are listed below:

1. Student t-test (with equal and unequal variances) – Parametric test assumes normality
2. Wilcoxon-Mann-Whitney (WMW) test – Nonparametric test handles data with NDs or without NDs with one DL - assumes two populations have comparable shapes and variability
3. Gehan test – Nonparametric test handles data sets with NDs and multiple DLs - assumes comparable shapes and variability
4. Tarone-Ware (T-W) test – Nonparametric test handles data sets with NDs and multiple DLs - assumes comparable shapes and variability

Steps taken in ProUCL to determine whether site concentrations are consistent with background:

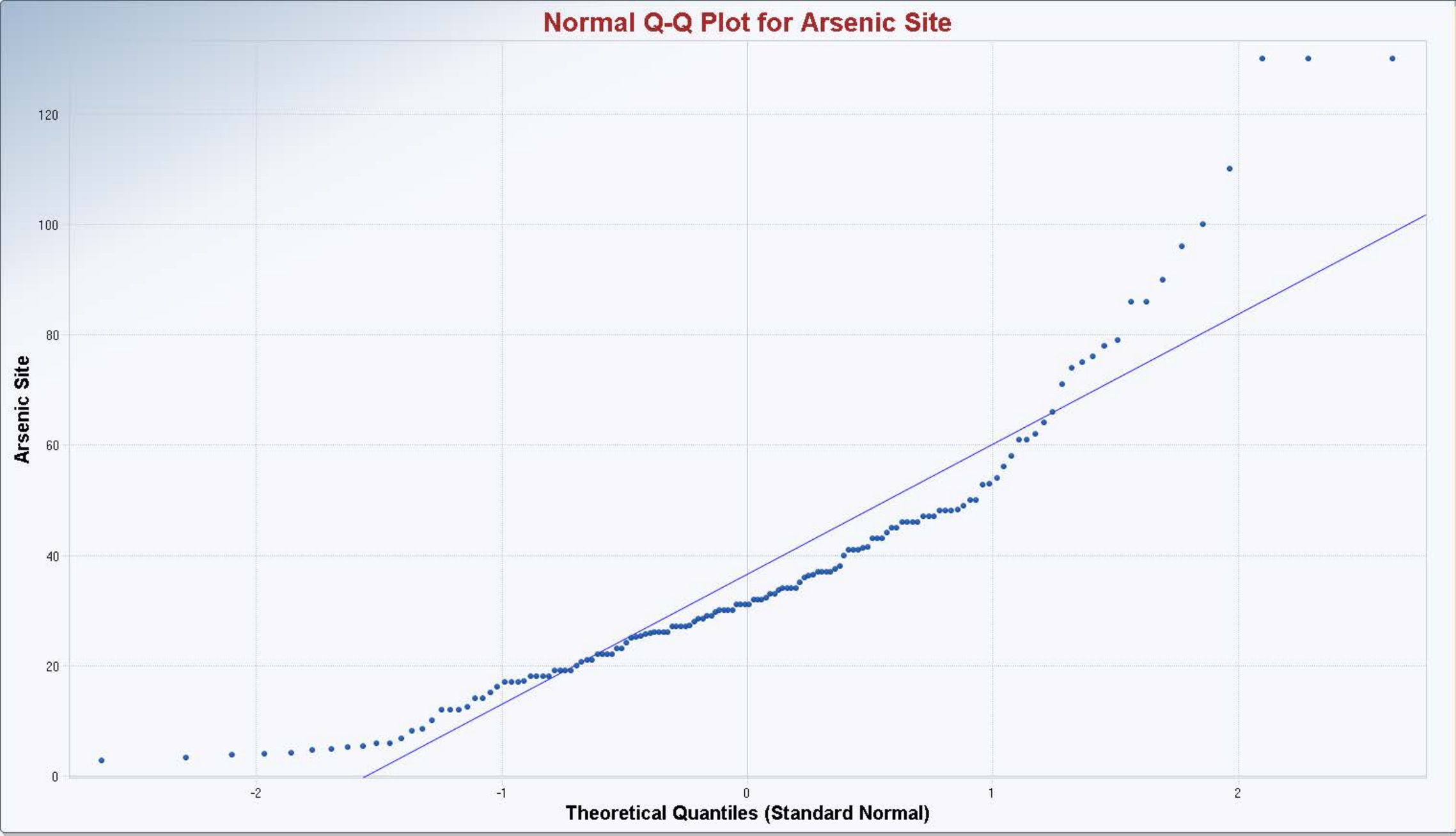
1. Run GOF Statistics to determine distribution – produces Q-Q plots along with GOF statistics
2. Run outlier tests w/out NDS for both Site and background data
3. Remove Outliers determined from outlier test
4. Re-run GOF test, Q-Q plots, and outlier test
5. Run two sample hypothesis testing using WMW

Arsenic found in surface soil at the site is not consistent with background. Background concentrations were significantly lower than site concentrations (p-value > 0.05).



Arsenic Background

n = 47
Mean = 23.33
Sd = 14.29
Slope = 13.65
Intercept = 23.33
Correlation, R = 0.937
Shapiro-Wilk Test
Exact Test Value = 0.871
Critical Val(0.05) = 0.946
Data Not Normal
Approx. Test Value = 0.871
p-Value = 2.7069E-5
Best Fit Line



Arsenic Site

- n = 146
- Mean = 36.54
- Sd = 25.05
- Slope = 23.6
- Intercept = 36.54
- Correlation, R = 0.935
- Shapiro-Wilk Test
- Approx. Test Value = 0.866
- p-Value = 0
- Data Not Normal
- Best Fit Line

Attachment B-1
GOF with Outliers
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Goodness-of-Fit Test Statistics for Uncensored Full Data Sets without Non-Detects

User Selected Options

Date/Time of Computation	6/6/2018 10:54:30 AM
From File	ProUCL Input_Background_Site.xls
Full Precision	OFF
Confidence Coefficient	0.95

Arsenic Background

Raw Statistics

Number of Valid Observations	47
Number of Distinct Observations	43
Minimum	6.51
Maximum	65.8
Mean of Raw Data	23.33
Standard Deviation of Raw Data	14.29
Khat	3.099
Theta hat	7.527
Kstar	2.916
Theta star	8.001
Mean of Log Transformed Data	2.98
Standard Deviation of Log Transformed Data	0.586

Normal GOF Test Results

Correlation Coefficient R	0.937
Shapiro Wilk Test Statistic	0.871
Shapiro Wilk Critical (0.05) Value	0.946
Approximate Shapiro Wilk P Value	2.7069E-5
Lilliefors Test Statistic	0.177
Lilliefors Critical (0.05) Value	0.129

Data not Normal at (0.05) Significance Level

Gamma GOF Test Results

Correlation Coefficient R	0.984
A-D Test Statistic	0.872
A-D Critical (0.05) Value	0.756
K-S Test Statistic	0.123
K-S Critical(0.05) Value	0.13

Data follow Appr. Gamma Distribution at (0.05) Significance Level

Lognormal GOF Test Results

Correlation Coefficient R	0.989
Shapiro Wilk Test Statistic	0.962
Shapiro Wilk Critical (0.05) Value	0.946
Approximate Shapiro Wilk P Value	0.209
Lilliefors Test Statistic	0.0943
Lilliefors Critical (0.05) Value	0.129

Data appear Lognormal at (0.05) Significance Level

Goodness-of-Fit Test Statistics for Uncensored Full Data Sets without Non-Detects

User Selected Options

Date/Time of Computation	6/6/2018 10:54:30 AM
From File	ProUCL Input_Background_Site.xls
Full Precision	OFF
Confidence Coefficient	0.95

Arsenic Site

Raw Statistics

Number of Valid Observations	146
Number of Distinct Observations	91
Minimum	2.8
Maximum	130
Mean of Raw Data	36.54
Standard Deviation of Raw Data	25.05
Khat	2.176
Theta hat	16.79
Kstar	2.136
Theta star	17.11
Mean of Log Transformed Data	3.351
Standard Deviation of Log Transformed Data	0.773

Normal GOF Test Results

Correlation Coefficient R	0.935
Approximate Shapiro Wilk Test Statistic	0.866
Approximate Shapiro Wilk P Value	0
Lilliefors Test Statistic	0.13
Lilliefors Critical (0.05) Value	0.0733

Data not Normal at (0.05) Significance Level

Gamma GOF Test Results

Correlation Coefficient R	0.99
A-D Test Statistic	0.994
A-D Critical (0.05) Value	0.765
K-S Test Statistic	0.0699
K-S Critical(0.05) Value	0.0785

Data follow Appr. Gamma Distribution at (0.05) Significance Level

Lognormal GOF Test Results

Correlation Coefficient R	0.971
Approximate Shapiro Wilk Test Statistic	0.931
Approximate Shapiro Wilk P Value	4.8482E-8
Lilliefors Test Statistic	0.117
Lilliefors Critical (0.05) Value	0.0733

Data not Lognormal at (0.05) Significance Level

Attachment B-1
Outlier Tests with Outliers
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Outlier Tests for Selected Uncensored Variables

User Selected Options

Date/Time of Computation 6/6/2018 11:05:55 AM

From File ProUCL Input_Background_Site_with Outlier.xls

Full Precision OFF

Rosner's Outlier Test for Arsenic Background

Mean	**23.33**
Standard Deviation	**14.29**
Number of data	**47**
Number of suspected outliers	**10**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	23.33	14.13	65.8	42	3.005	3.1	3.46
2	22.4	12.95	51.3	43	2.232	3.09	3.45
3	21.76	12.33	49.5	45	2.249	3.09	3.44
4	21.13	11.72	49.2	46	2.395	3.08	3.43
5	20.48	11.02	47.9	21	2.489	3.07	3.41
6	19.83	10.27	45.2	11	2.47	3.058	3.4
7	19.21	9.576	44.4	20	2.631	3.046	3.39
8	18.58	8.796	41.3	44	2.583	3.034	3.38
9	18	8.092	35	12	2.102	3.022	3.37
10	17.55	7.696	33.7	47	2.099	3.01	3.36

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Arsenic Site

Mean	**36.54**
Standard Deviation	**25.05**
Number of data	**146**
Number of suspected outliers	**10**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	36.54	24.96	130	74	3.744	3.509	3.879
2	35.9	23.89	130	114	3.939	3.5	3.879
3	35.24	22.64	130	115	4.186	3.5	3.879
4	34.58	21.27	110	9	3.546	3.499	3.869
5	34.05	20.37	100	71	3.238	3.499	3.869
6	33.58	19.66	96	68	3.175	3.497	3.867
7	33.14	19	90	41	2.992	3.494	3.864
8	32.73	18.44	86	112	2.888	3.492	3.862
9	32.34	17.94	86	113	2.991	3.49	3.86
10	31.95	17.4	79	143	2.704	3.488	3.858

For 5% significance level, there are 4 Potential Outliers
Potential outliers are:
130, 130, 130, 110

For 1% Significance Level, there are 3 Potential Outliers
Potential outliers are:
130, 130, 130

Attachment B-1
GOF with Outliers
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Outlier Tests for Selected Uncensored Variables

User Selected Options

Date/Time of Computation 6/6/2018 11:09:36 AM

From File ProUCL Input_Background_Site_Outliers Removed.xls

Full Precision OFF

Rosner's Outlier Test for Arsenic Background

Mean	**23.33**
Standard Deviation	**14.29**
Number of data	**47**
Number of suspected outliers	**10**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	23.33	14.13	65.8	42	3.005	3.1	3.46
2	22.4	12.95	51.3	43	2.232	3.09	3.45
3	21.76	12.33	49.5	45	2.249	3.09	3.44
4	21.13	11.72	49.2	46	2.395	3.08	3.43
5	20.48	11.02	47.9	21	2.489	3.07	3.41
6	19.83	10.27	45.2	11	2.47	3.058	3.4
7	19.21	9.576	44.4	20	2.631	3.046	3.39
8	18.58	8.796	41.3	44	2.583	3.034	3.38
9	18	8.092	35	12	2.102	3.022	3.37
10	17.55	7.696	33.7	47	2.099	3.01	3.36

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

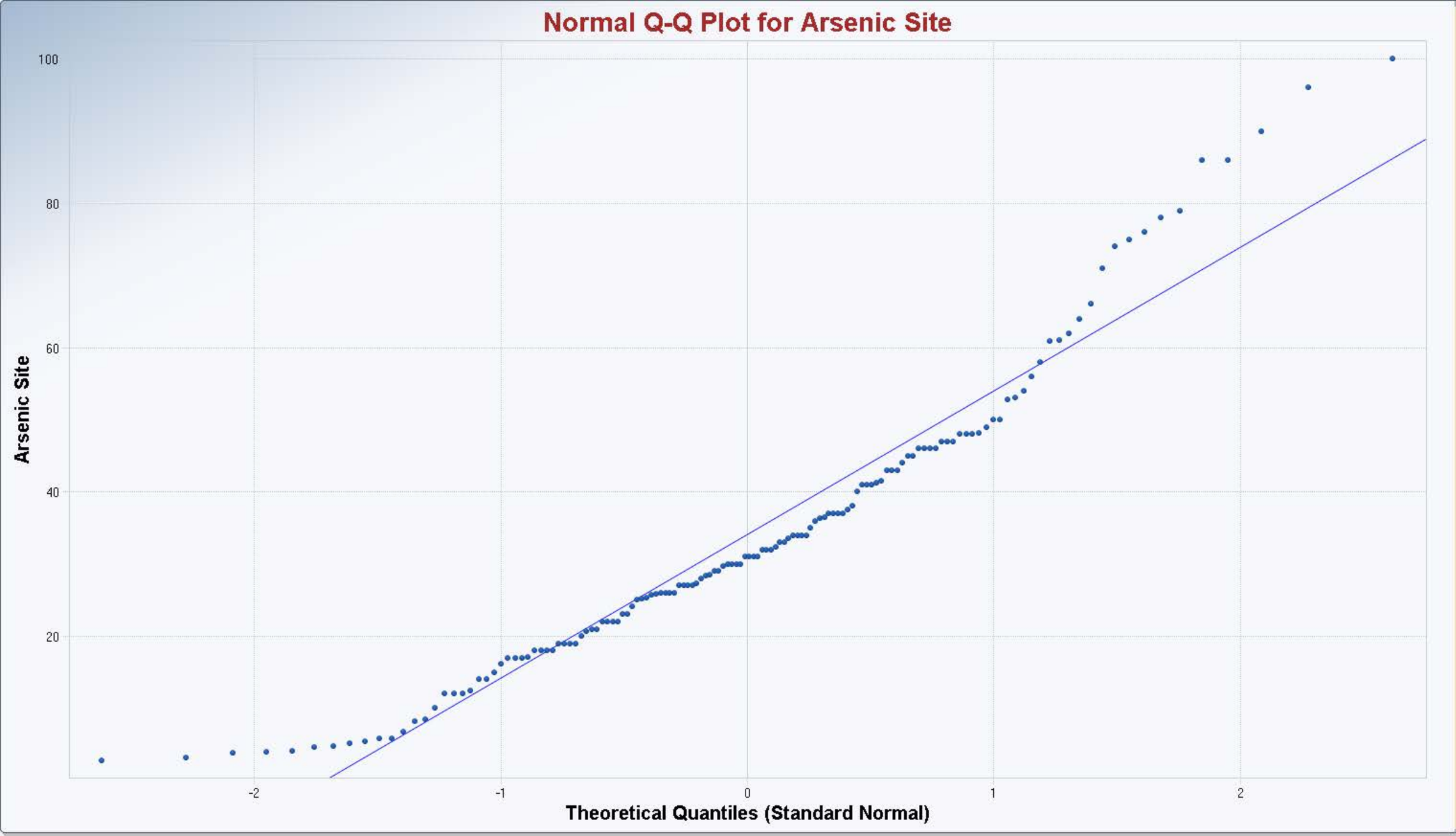
Rosner's Outlier Test for Arsenic Site

Mean	**34.05**
Standard Deviation	**20.37**
Number of data	**142**
Number of suspected outliers	**10**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	34.05	20.3	100	70	3.249	3.498	3.868
2	33.58	19.66	96	67	3.175	3.489	3.868
3	33.14	19	90	40	2.992	3.489	3.868
4	32.73	18.44	86	110	2.888	3.488	3.858
5	32.34	17.94	86	111	2.991	3.488	3.858
6	31.95	17.4	79	139	2.704	3.485	3.855
7	31.6	16.99	78	93	2.731	3.483	3.853
8	31.26	16.57	76	96	2.7	3.481	3.851
9	30.93	16.17	75	95	2.726	3.478	3.848
10	30.59	15.77	74	98	2.753	3.476	3.846

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier


Normal Q-Q Plot for Arsenic Site
Arsenic Site
100
80
60
40
20
-2
-1
0
1
2
Theoretical Quantiles (Standard Normal)
Arsenic Site
n = 142
Mean = 34.05
Sd = 20.37
Slope = 19.91
Intercept = 34.05
Correlation, R = 0.97
Shapiro-Wilk Test
Approx. Test Value = 0.926
p-Value = 9.6898E-9
Data Not Normal
Best Fit Line

Attachment B-1
GOF Outliers Removed
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Goodness-of-Fit Test Statistics for Uncensored Full Data Sets without Non-Detects

User Selected Options

Date/Time of Computation	6/6/2018 11:08:56 AM
From File	ProUCL Input_Background_Site_Outliers Removed.xls
Full Precision	OFF
Confidence Coefficient	0.95

Arsenic Background

Raw Statistics

Number of Valid Observations	47
Number of Distinct Observations	43
Minimum	6.51
Maximum	65.8
Mean of Raw Data	23.33
Standard Deviation of Raw Data	14.29
Khat	3.099
Theta hat	7.527
Kstar	2.916
Theta star	8.001
Mean of Log Transformed Data	2.98
Standard Deviation of Log Transformed Data	0.586

Normal GOF Test Results

Correlation Coefficient R	0.937
Shapiro Wilk Test Statistic	0.871
Shapiro Wilk Critical (0.05) Value	0.946
Approximate Shapiro Wilk P Value	2.7069E-5
Lilliefors Test Statistic	0.177
Lilliefors Critical (0.05) Value	0.129

Data not Normal at (0.05) Significance Level

Gamma GOF Test Results

Correlation Coefficient R	0.984
A-D Test Statistic	0.872
A-D Critical (0.05) Value	0.756
K-S Test Statistic	0.123
K-S Critical(0.05) Value	0.13

Data follow Appr. Gamma Distribution at (0.05) Significance Level

Lognormal GOF Test Results

Correlation Coefficient R	0.989
Shapiro Wilk Test Statistic	0.962
Shapiro Wilk Critical (0.05) Value	0.946
Approximate Shapiro Wilk P Value	0.209
Lilliefors Test Statistic	0.0943
Lilliefors Critical (0.05) Value	0.129

Data appear Lognormal at (0.05) Significance Level

Attachment B-1
GOF Outliers Removed
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Goodness-of-Fit Test Statistics for Uncensored Full Data Sets without Non-Detects

User Selected Options

Date/Time of Computation	6/6/2018 11:08:56 AM
From File	ProUCL Input_Background_Site_Outliers Removed.xls
Full Precision	OFF
Confidence Coefficient	0.95

Arsenic Site

Raw Statistics

Number of Valid Observations	142
Number of Distinct Observations	89
Minimum	2.8
Maximum	100
Mean of Raw Data	34.05
Standard Deviation of Raw Data	20.37
Khat	2.448
Theta hat	13.91
Kstar	2.401
Theta star	14.18
Mean of Log Transformed Data	3.31
Standard Deviation of Log Transformed Data	0.742

Normal GOF Test Results

Correlation Coefficient R	0.97
Approximate Shapiro Wilk Test Statistic	0.926
Approximate Shapiro Wilk P Value	9.6898E-9
Lilliefors Test Statistic	0.0996
Lilliefors Critical (0.05) Value	0.0744

Data not Normal at (0.05) Significance Level

Gamma GOF Test Results

Correlation Coefficient R	0.993
A-D Test Statistic	1.051
A-D Critical (0.05) Value	0.763
K-S Test Statistic	0.0812
K-S Critical(0.05) Value	0.0794

Data not Gamma Distributed at (0.05) Significance Level

Lognormal GOF Test Results

Correlation Coefficient R	0.962
Approximate Shapiro Wilk Test Statistic	0.912
Approximate Shapiro Wilk P Value	1.842E-11
Lilliefors Test Statistic	0.127
Lilliefors Critical (0.05) Value	0.0744

Data not Lognormal at (0.05) Significance Level

Attachment B-1
Two-Sample Hypothesis Testing WMW
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Wilcoxon-Mann-Whitney Sample 1 vs Sample 2 Comparison Test for Uncensor Full Data Sets without NDs

User Selected Options	
Date/Time of Computation	6/6/2018 11:30:15 AM
From File	ProUCL Input_Background_Site_Outliers Removed.xls
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0.000
Selected Null Hypothesis	Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)
Alternative Hypothesis	Sample 1 Mean/Median > Sample 2 Mean/Median

Sample 1 Data: Arsenic Background
Sample 2 Data: Arsenic Site

Raw Statistics

	Sample 1	Sample 2
Number of Valid Observations	47	142
Number of Distinct Observations	43	89
Minimum	6.51	2.8
Maximum	65.8	100
Mean	23.33	34.05
Median	18.8	31
SD	14.29	20.37
SE of Mean	2.084	1.709

Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Sample 1 <= Mean/Median of Sample 2

Sample 1 Rank Sum W-Stat	3339
Standardized WMW U-Stat	-3.466
Mean (U)	3337
SD(U) - Adj ties	325.1
Approximate U-Stat Critical Value (0.05)	1.645
P-Value (Adjusted for Ties)	1

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Sample 1 <= Sample 2
P-Value >= alpha (0.05)

WSP USA Environment & Infrastructure Inc.
100 Apollo Drive, Suite 302
Chelmsford, MA 01824
USA

T: 978-692-9090

Attachment B-2

Re: **Upper Tolerance Limits (UTLs)/Background Threshold Values (BTVs) for Arsenic in Soil**

The process for calculating UTLs is discussed below:

- **Step 1:** Data distributions for each relevant compound in the background soil dataset were identified using ProUCL.
- **Step 2:** Data was transformed if necessary. ProUCL's outlier tests assume normally distributed data; therefore, data that did not have a normal distribution was transformed before running the outlier tests. Transformations were performed as below.
  - Gamma data was transformed by taking the cubic root of each concentration *(as described in Wilson, and Hilferty (1931)).*
  - Lognormal data was transformed by taking the Base 10 logarithm of each concentration.
  - Non-parametric data cannot be transformed, therefore a different method was used to identify outliers for non-parametric data.
- **Step 3:** Outliers were identified.
  - Using ProUCL outlier tests (considering detected values only) for all data distributions except non-parametric data. A value was determined to be an outlier if it was a "Potential Statistical Outlier" using the Rosner's Outlier Test or if it was an outlier at the 10%, 5%, or 1% Significance Level using the Dixon's Outlier Test.
  - A box-and-whisker plot was used to identify outliers for non-parametric data. Any data points that fall outside of the whiskers were considered outliers.
- **Step 4:** Identified Outliers were removed. If an outlier was identified using ProUCL, it was removed from the dataset and the outlier tests were run again. This process was repeated until each parameter identified no outliers in the outlier test.
- **Step 5:** UTLs were calculated in ProUCL using the datasets with outliers removed, with 95% coverage and 95% confidence values.
- **Step 6:** Background values were selected as the minimum of the calculated Upper Tolerance Limit and the maximum detected concentration excluding outliers. The maximum detected concentration was selected as the background value for all compounds with fewer than 6 detections, as this is insufficient data to calculate a UTL.

Specific to the Background Site:

Background data only includes those that are within 0-3 ft as well as 4 samples that were excavated from 3-11 ft.

- **Step 1:** Identified data distribution of background data – Gamma Distribution
- **Step 2:** Arsenic concentrations were determined to be gamma distributed. Therefore, arsenic concentrations were transformed by taking cubic root of each concentration and used as input values for the outlier test.
- **Step 3**: Outliers were identified using ProUCL version 5.1. A value was determined to be an outlier if it was a Potential Statistical Outlier using the Rosner's Outlier Test or if it was an outlier at the 10%, 5%, or 1% Significance Level using the Dixon's Outlier Test. No outliers were identified.
- **Step 4:** Maximum value identified after removal of outliers. No outliers were identified.
- **Step 5:** 95% UTL with 95% Coverage calculated by ProUCL Version 5.1.
- **Step 6:** Selected BTV is the minimum of the Calculated Background Value and maximum detection (excluding outliers).

Calculated BTV was 60.1 mg/kg – there are 20 values for site data above this BTV with a maximum concentration of 130.

Table B-2
Historic Fill Background Threshold Values
Conductorlab
430 Main Street
Groton, MA

Parameter Name	Units	Maximum Detection	Data Distribution [1]	Outliers [2]	Comments	Maximum Detection (excluding outliers) [3]	Calculated Background Value [4]	Background Value Distribution	PRO UCL Mode	Selected BTV [5]
Arsenic	mg/kg	65.8	Gamma	0	All detects (47 samples)	65.8	60.11	Gamma	Full (w/o NDs)	60.1

Notes:

ND - Non-Detects

Prepared By: LGF 6/25/18

BTV - Background Threshold Value

Checked By: KALS 6/21/22

[1] Arsenic concentrations were determined to be gamma distributed. Therefore, arsenic concentrations were transformed by taking cubic root of each concentration and used as input values for the outlier test.

[2] Outliers were identified using ProUCL version 5.1. A value was determined to be an outlier if it was a Potential Statistical Outlier using the Rosner's Outlier Test or if it was an outlier at the 10%, 5%, or 1% Significance Level using the Dixon's Outlier Test. No outliers were identified.

[3] Maximum value identified after removal of outliers. No outliers were identified.

[4] 95% UTL with 95% Coverage calculated by ProUCL Version 5.1.

[5] Selected BTV is the minimum of the Calculated Background Value and maximum detection (excluding outliers).

Attachment B-2
Step 1: Identification of Data Distribution
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	6/25/2018 2:21:05 PM
From File	ProUCL Input_Background_Site.xls
Full Precision	OFF
Confidence Coefficient	95%
mber of Bootstrap Operations	2000

Arsenic Background

General Statistics

Total Number of Observations	47	Number of Distinct Observations	43
		Number of Missing Observations	0
Minimum	6.51	Mean	23.33
Maximum	65.8	Median	18.8
SD	14.29	Std. Error of Mean	2.084
Coefficient of Variation	0.612	Skewness	1.116

Normal GOF Test

Shapiro Wilk Test Statistic	0.871	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.946	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.177	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.129	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	26.83	95% Adjusted-CLT UCL (Chen-1995)	27.12
		95% Modified-t UCL (Johnson-1978)	26.88

Gamma GOF Test

A-D Test Statistic	0.872	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.756	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.123	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.13	etected data appear Gamma Distributed at 5% Significance Lev

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics

k hat (MLE)	3.099	k star (bias corrected MLE)	2.916
Theta hat (MLE)	7.527	Theta star (bias corrected MLE)	8.001
nu hat (MLE)	291.3	nu star (bias corrected)	274.1
MLE Mean (bias corrected)	23.33	MLE Sd (bias corrected)	13.66
		Approximate Chi Square Value (0.05)	236.7
Adjusted Level of Significance	0.0449	Adjusted Chi Square Value	235.6

Attachment B-2
Step 1: Identification of Data Distribution
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	6/25/2018 2:21:05 PM
From File	ProUCL Input_Background_Site.xls
Full Precision	OFF
Confidence Coefficient	95%
mber of Bootstrap Operations	2000

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	27.01	95% Adjusted Gamma UCL (use when n<50)	27.13

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.962	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.946	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.0943	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.129	Data appear Lognormal at 5% Significance Level

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	1.873	Mean of logged Data	2.98
Maximum of Logged Data	4.187	SD of logged Data	0.586

Assuming Lognormal Distribution

95% H-UCL	27.65	90% Chebyshev (MVUE) UCL	29.64
95% Chebyshev (MVUE) UCL	32.52	97.5% Chebyshev (MVUE) UCL	36.52
99% Chebyshev (MVUE) UCL	44.39		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	26.76	95% Jackknife UCL	26.83
95% Standard Bootstrap UCL	26.77	95% Bootstrap-t UCL	27.41
95% Hall's Bootstrap UCL	27.24	95% Percentile Bootstrap UCL	26.84
95% BCA Bootstrap UCL	26.85		
90% Chebyshev(Mean, Sd) UCL	29.58	95% Chebyshev(Mean, Sd) UCL	32.41
97.5% Chebyshev(Mean, Sd) UCL	36.34	99% Chebyshev(Mean, Sd) UCL	44.06

Suggested UCL to Use

95% Adjusted Gamma UCL	27.13

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

Attachment B-2
Step 1: Identification of Data Distribution
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	6/25/2018 2:21:05 PM
From File	ProUCL Input_Background_Site.xls
Full Precision	OFF
Confidence Coefficient	95%
mber of Bootstrap Operations	2000

Arsenic Site

General Statistics

Total Number of Observations	146	Number of Distinct Observations	91
		Number of Missing Observations	0
Minimum	2.8	Mean	36.54
Maximum	130	Median	31
SD	25.05	Std. Error of Mean	2.073
Coefficient of Variation	0.686	Skewness	1.568

Normal GOF Test

Shapiro Wilk Test Statistic	0.866	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.13	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0733	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	39.97	95% Adjusted-CLT UCL (Chen-1995)	40.24
		95% Modified-t UCL (Johnson-1978)	40.02

Gamma GOF Test

A-D Test Statistic	0.994	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.765	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.0699	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.0785	etected data appear Gamma Distributed at 5% Significance Lev

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics

k hat (MLE)	2.176	k star (bias corrected MLE)	2.136
Theta hat (MLE)	16.79	Theta star (bias corrected MLE)	17.11
nu hat (MLE)	635.4	nu star (bias corrected)	623.7
MLE Mean (bias corrected)	36.54	MLE Sd (bias corrected)	25
		Approximate Chi Square Value (0.05)	566.8
Adjusted Level of Significance	0.0484	Adjusted Chi Square Value	566.2

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	40.21	95% Adjusted Gamma UCL (use when n<50)	40.25

Attachment B-2
Step 1: Identification of Data Distribution
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	6/25/2018 2:21:05 PM
From File	ProUCL Input_Background_Site.xls
Full Precision	OFF
Confidence Coefficient	95%
mber of Bootstrap Operations	2000

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.931	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk P Value	4.8482E-8	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.117	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.0733	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	1.03	Mean of logged Data	3.351
Maximum of Logged Data	4.868	SD of logged Data	0.773

Assuming Lognormal Distribution

95% H-UCL	43.77	90% Chebyshev (MVUE) UCL	46.69
95% Chebyshev (MVUE) UCL	50.45	97.5% Chebyshev (MVUE) UCL	55.68
99% Chebyshev (MVUE) UCL	65.95		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	39.95	95% Jackknife UCL	39.97
95% Standard Bootstrap UCL	39.86	95% Bootstrap-t UCL	40.62
95% Hall's Bootstrap UCL	40.44	95% Percentile Bootstrap UCL	40.06
95% BCA Bootstrap UCL	40.12		
90% Chebyshev(Mean, Sd) UCL	42.76	95% Chebyshev(Mean, Sd) UCL	45.58
97.5% Chebyshev(Mean, Sd) UCL	49.49	99% Chebyshev(Mean, Sd) UCL	57.17

Suggested UCL to Use

95% Approximate Gamma UCL	40.21

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

Attachment B-2
Step 2: Outlier Test
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Outlier Tests for Selected Uncensored Variables

User Selected Options

Date/Time of Computation 6/25/2018 2:26:02 PM

From File ProUCL Input_Background_Site_Transformed_a.xls

Full Precision OFF

Rosner's Outlier Test for TransformedArsenic Background

Mean	**2.751**
Standard Deviation	**0.547**
Number of data	**47**
Number of suspected outliers	**10**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	2.751	0.541	4.037	42	2.375	3.1	3.46
2	2.723	0.518	3.716	43	1.915	3.09	3.45
3	2.701	0.502	3.672	45	1.934	3.09	3.44
4	2.679	0.485	3.664	46	2.031	3.08	3.43
5	2.656	0.466	3.632	21	2.092	3.07	3.41
6	2.633	0.446	3.562	11	2.083	3.058	3.4
7	2.611	0.426	3.541	20	2.183	3.046	3.39
8	2.587	0.404	3.457	44	2.149	3.034	3.38
9	2.565	0.384	3.271	12	1.839	3.022	3.37
10	2.546	0.371	3.23	47	1.843	3.01	3.36

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Attachment B-2
Step 3: Calculated UTLs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Background Statistics for Uncensored Full Data Sets

User Selected Options

Date/Time of Computation	6/25/2018 2:27:38 PM
From File	\\WFD-FS1\projectf$\Projects\old_Wakefield_Data\projects\3617187421 - Conductorlab\HHRA
Full Precision	OFF
Confidence Coefficient	95%
Coverage	95%
New or Future K Observations	1
mber of Bootstrap Operations	2000

Arsenic Background

General Statistics

Total Number of Observations	47	Number of Distinct Observations	43
Minimum	6.51	First Quartile	12.75
Second Largest	51.3	Median	18.8
Maximum	65.8	Third Quartile	33.05
Mean	23.33	SD	14.29
Coefficient of Variation	0.612	Skewness	1.116
Mean of logged Data	2.98	SD of logged Data	0.586

Critical Values for Background Threshold Values (BTVs)

Tolerance Factor K (For UTL)	2.074	d2max (for USL)	2.933

Normal GOF Test

Shapiro Wilk Test Statistic	0.871	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.946	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.177	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.129	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Background Statistics Assuming Normal Distribution

95% UTL with	95% Coverage	52.95	90% Percentile (z)	41.63
	95% UPL (t)	47.56	95% Percentile (z)	46.82
	95% USL	65.22	99% Percentile (z)	56.56

Gamma GOF Test

A-D Test Statistic	0.872	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.756	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.123	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.13	etected data appear Gamma Distributed at 5% Significance Lev

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics

k hat (MLE)	3.099	k star (bias corrected MLE)	2.916
Theta hat (MLE)	7.527	Theta star (bias corrected MLE)	8.001
nu hat (MLE)	291.3	nu star (bias corrected)	274.1
MLE Mean (bias corrected)	23.33	MLE Sd (bias corrected)	13.66

Attachment B-2
Step 3: Calculated UTLs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Background Statistics for Uncensored Full Data Sets

User Selected Options

Date/Time of Computation	6/25/2018 2:27:38 PM
From File	\\WFD-FS1\projectf$\Projects\old_Wakefield_Data\projects\3617187421 - Conductorlab\HHRA
Full Precision	OFF
Confidence Coefficient	95%
Coverage	95%
New or Future K Observations	1
mber of Bootstrap Operations	2000

Background Statistics Assuming Gamma Distribution

95% Wilson Hilferty (WH) Approx. Gamma UPL	49.83	90% Percentile	41.64
95% Hawkins Wixley (HW) Approx. Gamma UPL	50.45	95% Percentile	49.36
95% WH Approx. Gamma UTL with 95% Coverage	58.7	99% Percentile	66.11
95% HW Approx. Gamma UTL with 95% Coverage	60.11		
95% WH USL	82.67	95% HW USL	87.21

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.962	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.946	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.0943	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.129	Data appear Lognormal at 5% Significance Level

Data appear Lognormal at 5% Significance Level

Background Statistics assuming Lognormal Distribution

95% UTL with 95% Coverage	66.35	90% Percentile (z)	41.71
95% UPL (t)	53.18	95% Percentile (z)	51.6
95% USL	109.7	99% Percentile (z)	76.93

Nonparametric Distribution Free Background Statistics

Data appear Approximate Gamma Distribution at 5% Significance Level

Nonparametric Upper Limits for Background Threshold Values

Order of Statistic, r	46	95% UTL with 95% Coverage	51.3
Approximate f	1.211	Confidence Coefficient (CC) achieved by UTL	0.688
95% Percentile Bootstrap UTL with 95% Coverage	61.45	95% BCA Bootstrap UTL with 95% Coverage	60.91
95% UPL	50.58	90% Percentile	46.28
90% Chebyshev UPL	66.64	95% Percentile	49.41
95% Chebyshev UPL	86.25	99% Percentile	59.13
95% USL	65.8		

Note: The use of USL to estimate a BTV is recommended only when the data set represents a background data set free of outliers and consists of observations collected from clean unimpacted locations.
The use of USL tends to provide a balance between false positives and false negatives provided the data represents a background data set and when many onsite observations need to be compared with the BTV.

Attachment B-2
Step 3: Calculated UTLs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Background Statistics for Uncensored Full Data Sets

User Selected Options

Date/Time of Computation	6/25/2018 2:27:38 PM
From File	\\WFD-FS1\projectf$\Projects\old_Wakefield_Data\projects\3617187421 - Conductorlab\HHRA
Full Precision	OFF
Confidence Coefficient	95%
Coverage	95%
New or Future K Observations	1
mber of Bootstrap Operations	2000

Arsenic Site

General Statistics

Total Number of Observations	146	Number of Distinct Observations	91
Minimum	2.8	First Quartile	20.78
Second Largest	130	Median	31
Maximum	130	Third Quartile	46
Mean	36.54	SD	25.05
Coefficient of Variation	0.686	Skewness	1.568
Mean of logged Data	3.351	SD of logged Data	0.773

Critical Values for Background Threshold Values (BTVs)

Tolerance Factor K (For UTL)	1.871	d2max (for USL)	3.334

Normal GOF Test

Shapiro Wilk Test Statistic	0.866	**Normal GOF Test**
5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.13	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0733	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Background Statistics Assuming Normal Distribution

95% UTL with	95% Coverage	83.41	90% Percentile (z)	68.64
	95% UPL (t)	78.15	95% Percentile (z)	77.74
	95% USL	120.1	99% Percentile (z)	94.82

Gamma GOF Test

A-D Test Statistic	0.994	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.765	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.0699	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.0785	etected data appear Gamma Distributed at 5% Significance Lev

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics

k hat (MLE)	2.176	k star (bias corrected MLE)	2.136
Theta hat (MLE)	16.79	Theta star (bias corrected MLE)	17.11
nu hat (MLE)	635.4	nu star (bias corrected)	623.7
MLE Mean (bias corrected)	36.54	MLE Sd (bias corrected)	25

Attachment B-2
Step 3: Calculated UTLs
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Background Statistics for Uncensored Full Data Sets

User Selected Options

Date/Time of Computation	6/25/2018 2:27:38 PM
From File	\\WFD-FS1\projectf$\Projects\old_Wakefield_Data\projects\3617187421 - Conductorlab\HHRA
Full Precision	OFF
Confidence Coefficient	95%
Coverage	95%
New or Future K Observations	1
mber of Bootstrap Operations	2000

Background Statistics Assuming Gamma Distribution

95% Wilson Hilferty (WH) Approx. Gamma UPL	84.7	90% Percentile	69.98
95% Hawkins Wixley (HW) Approx. Gamma UPL	87.46	95% Percentile	84.9
95% WH Approx. Gamma UTL with 95% Coverage	94.1	99% Percentile	117.9
95% HW Approx. Gamma UTL with 95% Coverage	98.12		
95% WH USL	179.5	95% HW USL	201.8

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.931	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk P Value	4.8482E-8	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.117	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.0733	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Background Statistics assuming Lognormal Distribution

95% UTL with 95% Coverage	121.2	90% Percentile (z)	76.83
95% UPL (t)	103	95% Percentile (z)	101.7
95% USL	375.3	99% Percentile (z)	172.2

Nonparametric Distribution Free Background Statistics

Data appear Approximate Gamma Distribution at 5% Significance Level

Nonparametric Upper Limits for Background Threshold Values

Order of Statistic, r	142	95% UTL with 95% Coverage	100
Approximate f	1.495	Confidence Coefficient (CC) achieved by UTL	0.859
95% Percentile Bootstrap UTL with 95% Coverage	100	95% BCA Bootstrap UTL with 95% Coverage	99
95% UPL	88.6	90% Percentile	68.5
90% Chebyshev UPL	111.9	95% Percentile	86
95% Chebyshev UPL	146.1	99% Percentile	130
95% USL	130		

Note: The use of USL to estimate a BTV is recommended only when the data set represents a background data set free of outliers and consists of observations collected from clean unimpacted locations.
The use of USL tends to provide a balance between false positives and false negatives provided the data represents a background data set and when many onsite observations need to be compared with the BTV.

WSP USA Environment & Infrastructure Inc.
100 Apollo Drive, Suite 302
Chelmsford, MA 01824
USA

T: 978-692-9090

Attachment B-3

To:	Kim Henry, LSP		
From:	Jane A. Parkin Kullmann PhD CPH	Reviewer:	Tim Glover
Date:	23 September 2020	File No.:	3616196090
Re:	**Evaluation of Arsenic Concentrations in Soil at the Conductorlab Site in Groton, Massachusetts**		

Introduction

The Conductorlab Disposal Site is located in an area of known, locally higher arsenic concentrations (the "arsenic belt", which generally includes western Middlesex and Worcester Counties). Concentrations of arsenic measured in Site soil range from 2.8 to 190 mg/kg. Based on an evaluation of local conditions, a separate analysis (included as **Attachment B-2**) identified a local background level of arsenic in soil of 60.1 mg/kg, compared to MassDEP's default background level of 20 mg/kg. While the identified background level is 60.1 mg/kg, concentrations at the Site are higher than this level. However, arsenic is not and has never been a chemical associated with the releases that occurred at Conductorlab, which are related primarily to chlorinated volatile compounds and chromium. As such, the arsenic data were evaluated to see if they represented a continuous data set (and therefore a single population), if there were any outliers in the data set, and how the data set(s) were represented by the distributions available in USEPA's ProUCL software. In addition, a geochemical evaluation was performed to evaluate whether the arsenic concentrations at the Site appear to be consistent with naturally occurring indicator metals, which would indicate that the presence of arsenic is related to geologic conditions.

Statistical Evaluation

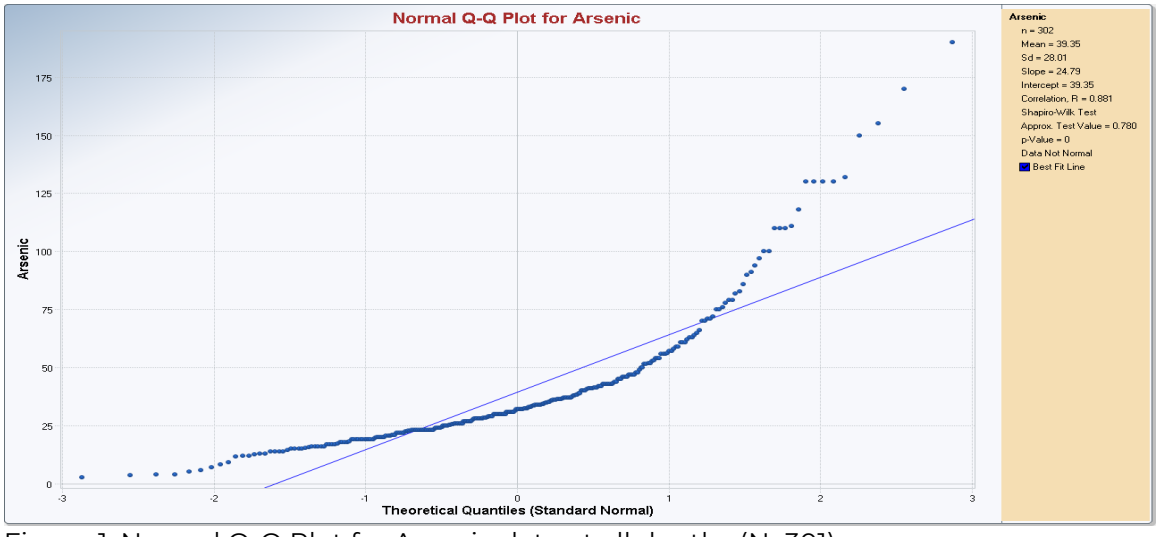


Figure 1: Normal Q-Q Plot for Arsenic data at all depths (N=301)

The Q-Q plot of all arsenic data from the Conductorlab Site does not indicate any extreme, outlying values in the data set. A goodness-of-fit test conducted using ProUCL indicates that this data set does not fit any of the tested distributions (normal, gamma, or lognormal).

A lognormal Q-Q plot of the arsenic data instead suggests that the values at the lower end of the data set may differ from the other values:

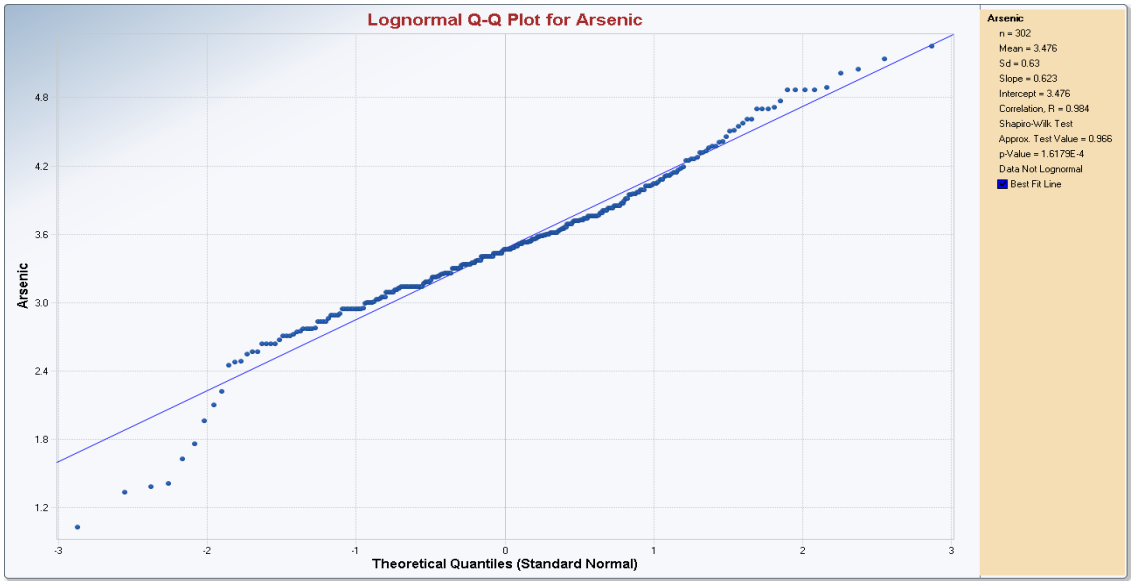


Figure 2: Lognormal Q-Q Plot for Arsenic data at all depths (N=302)

The five lowest arsenic concentrations are in are samples collected in soil 0-0.5 ft, so it is possible that this soil could be different from other samples. These are the only samples that were collected in 0-0.5 ft bgs soil, so there is not any basis for comparison with other samples at this same depth. One possibility is that, because these samples are directly at the surface, they may have a higher percentage of sand than other samples and thus less naturally occurring arsenic.

However, removing these values does not result in the revised data set fitting any of the distributions identified in ProUCL (Figure 3).

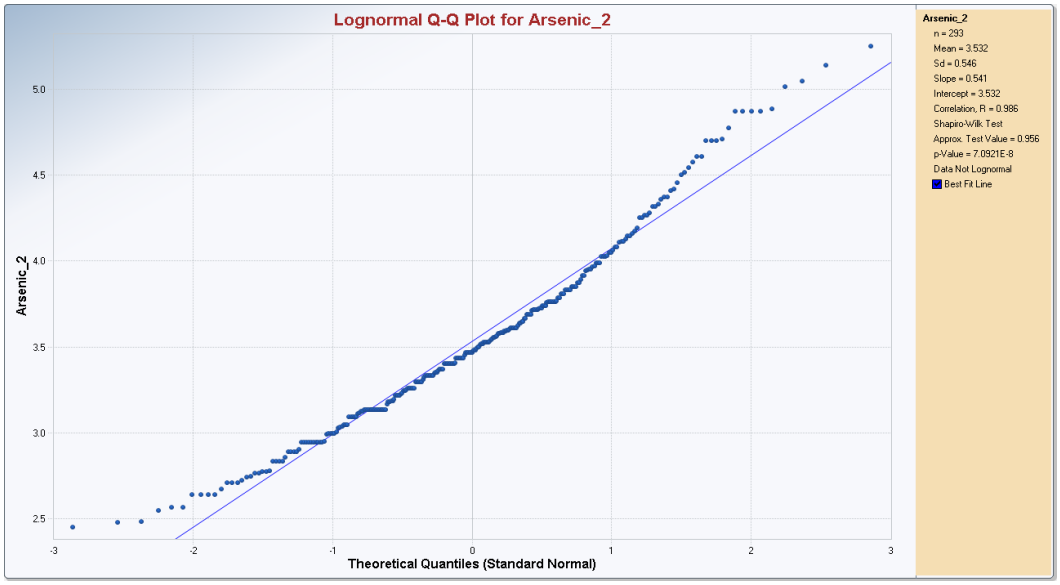


Figure 3: Lognormal Q-Q Plot for Arsenic data at all depths, excluding 9 low values (N=293)

Regardless, the data set excluding these values also does not indicate any extreme, outlying values.

The full data set was further examined by depth: 0-3 ft bgs samples (N=75) and 3-15 ft bgs samples (N=226) because these are the depths used to represent surface soil and subsurface soil at the Site.

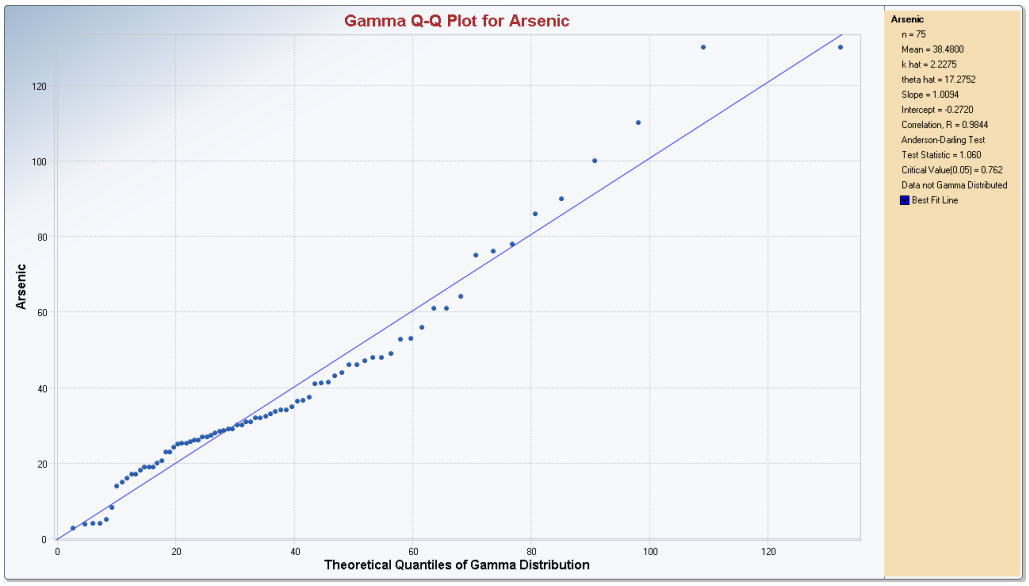


Figure 4: Gamma Q-Q Plot for Arsenic data 0-3 ft bgs (N=75)

Per a goodness-of-fit test, this data set fits an approximate gamma distribution. There are not any apparent extreme, outlying values in the 0-3 ft bgs data set.

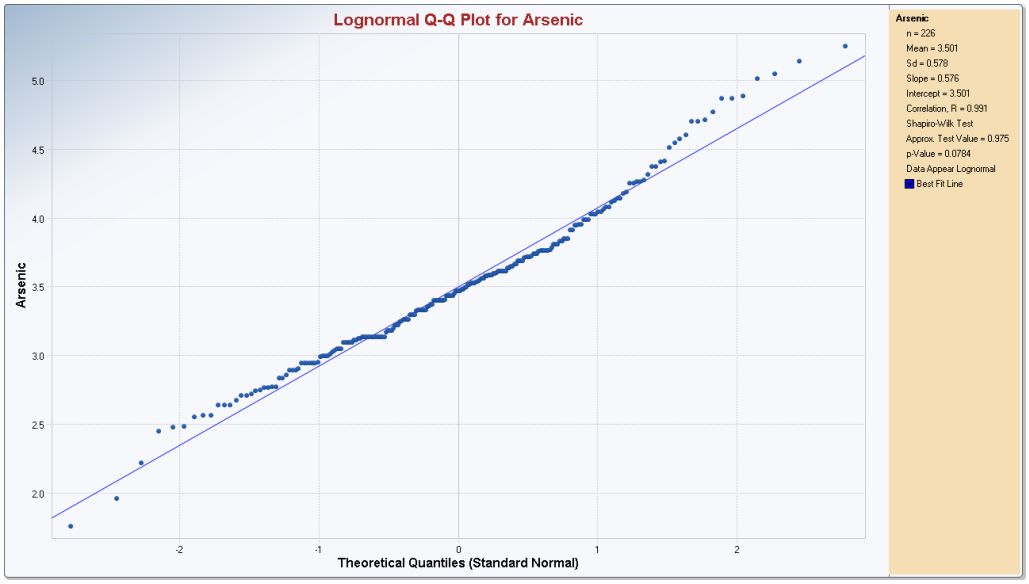


Figure 5: Lognormal Q-Q Plot for Arsenic data 3-15 ft bgs (N=226)

Per a goodness-of-fit data set, this data set fits a lognormal distribution. There are not any apparent extreme, outlying values in the 3-15 ft bgs data set.

Based on the Q-Q plots of the data set and subsets of the data set, there are not any extreme, outlying values in the data set. In addition, the data set appears to be composed of one continuous data set, without any breaks or discontinuities, and therefore one population of data (as opposed to, for example, two separate populations of natural and/or anthropogenic concentrations).

Geochemical Evaluation

Geochemical evaluation can be a useful tool to provide further information when concentrations of a trace metal are elevated but are also suspected to be related to natural rather than anthropogenic sources. Geochemistry compares concentrations of the trace metal of interest to "indicator" metals to evaluate whether concentrations of the trace metal are elevated relative to the indicator metal. Arsenic generally adheres to iron oxides on soil grains so arsenic concentrations are generally expected to be correlated with iron if it is attributable to natural sources. Arsenic can also be bound up by clay particles in the soil. Aluminum is a good indicator metal for clay content.

To perform the geochemical evaluation, first aluminum and iron concentrations were compared to assess the general Site mineralogy (N=179 data pairs). As shown in Figure 6 below, aluminum and iron concentrations at the Site are relatively linear, indicating a consistent Site minerology.

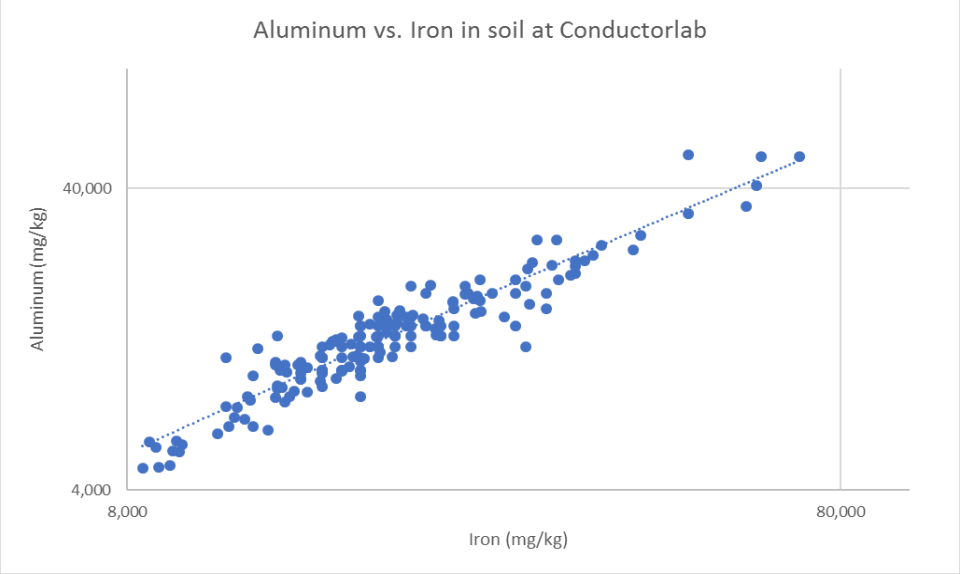


Figure 6: Scatter plot of aluminum and iron concentrations in soil (N=179)

The subsequent analysis compares arsenic concentrations to the concentrations of these two metals.

The first chart shows concentrations of arsenic versus iron, and the second shows concentrations of arsenic versus aluminum, for completeness. (Mathematically, since aluminum and iron are correlated, if arsenic is correlated to iron, it will also be correlated to aluminum.) The charts indicate that arsenic concentrations at the Site are relatively consistent with the concentrations of iron and aluminum. If concentrations of arsenic were elevated relative to iron or aluminum, this would be illustrated by points located in the upper left of the charts. However, these points are not apparent in these figures. Therefore, there does not appear to be either multiple natural populations of arsenic or a subpopulation of arsenic that is indicative of an anthropogenic source.

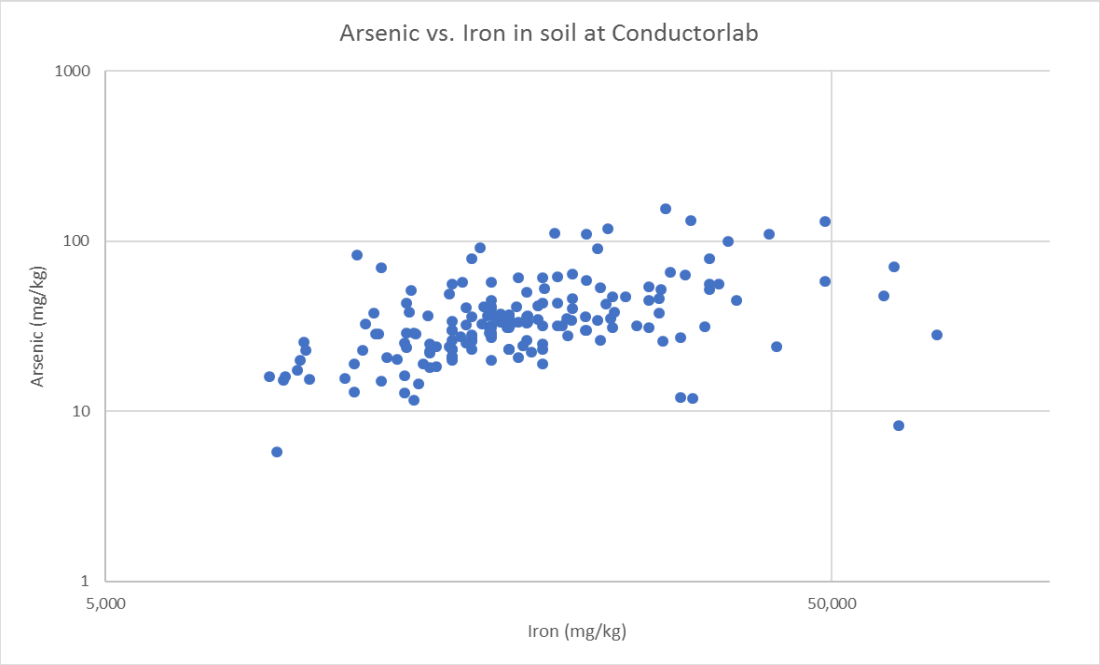


Figure 7: Scatter plot of arsenic and iron concentrations in soil (N=179)

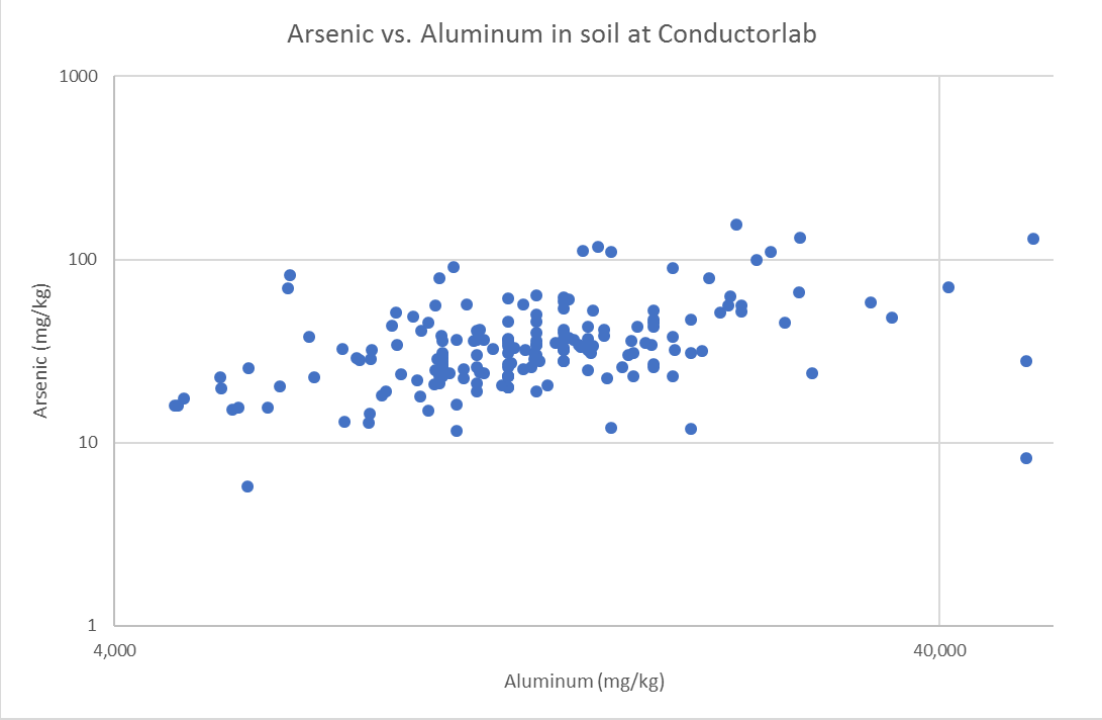


Figure 8: Scatter plot of arsenic and aluminum concentrations in soil (N=179)

One limitation of this analysis is that it includes only 179 of the 302 arsenic data points because there is not iron and aluminum data available for each sample. However, the available data pairs represent approximately 60 percent of the arsenic data, which is a considerable proportion. The samples for which aluminum and iron data are not available are not consistently biased by location, depth, or any other site characteristic. In addition, the average concentration of arsenic in the

excluded samples is approximately 41 mg/kg, which is very similar to the average concentration in the samples with aluminum and iron data, which is 38 mg/kg. In addition, there is not any reason that a different result would be anticipated were iron and/or aluminum data available for the remaining samples, and the available data are considered to be representative of the concentrations of these metals at the Site.

Conclusion

Based on the distribution of the arsenic data set overall and by depth, there are no apparent outliers in the data set. The data set appears to be a continuous distribution with no discontinuities or breaks that would indicate multiple populations.

In addition, a geochemical analysis of aluminum, iron, and arsenic concentrations at the Site demonstrates that soil minerology at the Site is consistent, and that there are not any apparent arsenic concentrations at the Site that are indicative of anthropogenic sources – that is, there are no sample locations with arsenic concentrations that are elevated relative to indicator metal concentrations.

Therefore, based on this analysis, it is concluded that the data set likely represents a single population, that the concentrations are representative of background, and that the presence of arsenic is related to geologic conditions and does not indicate a release of arsenic at the Site.

ATTACHMENT C

Attachment C-1	On-Property Estimated Excavation Air Concentrations
Attachment C-2	Off-Property Estimated Excavation Air Concentrations

Attachment C-1
Estimated Excavation Air Concentrations - On-Property
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Equation Number	Calculated Value	Equation (e)	Source	
Equation (1)	**Liquid-phase Mass Transfer Coefficient (ki_L)**	**ki_L = (MWO2/MWi)*0.5*(T/298)*(kL,O2)**	VDEQ	Equation 3-6
Equation (2)	**Gas-phase Mass Transfer Coefficient (ki_G)**	**ki_G = (MWH2O/MWi) *0.335* (T/298) *1.005* (kG,H2O)**	VDEQ	Equation 3-7
Equation (3)	**Mass Transfer Coefficient (Ki)**	**Ki = 1/(((1/ki_L)+((R*T)/(Hi*ki_G)))**	VDEQ	Equation 3-5
Equation (4)	**Volatilization Factor (VF)**	**VF = (Ki * A *F *CF1 * CF2 * CF3)/(ACH*V)**	VDEQ	Equation 3-4
Equation (5)	**Trench EPC Calculation (C_{trench})**	**C_{trench} = (Cw * VF)**	VDEQ	Equation 3-1

Site-Specific Input Parameters (a)		Units	Source
Trench air changes per hour (ACH)	360	per hour	VDEQ
Trench Dimensions:			
Length (l)	30.5	m	Assumed excavation length 100 ft
Width(w)	30.5	m	Assumed excavation width 100 ft
Depth (h)	1.5	m	Approximate average depth to groundwater
Total Volume of trench (V)	1375	m^3	Calculated
Area of Trench (A)	929	m^2	Calculated

Values of Constants for Use in Equation (1) through Equation (5) (a)			
Parameter		**Value**	**Units**
MWO2	Molecular weight of O2	3.20E+01	g/mol
MWi	Molecular weight of compound	Compound Specific	g/mol
MWH2O	Molecular weight of water	1.80E+01	g/mol
kL,O2	Liquid phase mass transfer coefficient of oxygen at 25 degrees C	2.00E-03	cm/s
kG,H2O	Gas-phase mass transfer coefficent of water vapor at 25 degrees C	8.33E-01	cm/s
F	Fraction of floor in which contaminant can enter	1.00E+00	Unitless
CF1	Conversion Factor 1	1.00E-03	L/cm^3
CF2	Conversion Factor 2	1.00E+04	cm^2/m^2
CF3	Conversion Factor 3	3.60E+03	s/hr
R	Ideal Gas Constant	8.20E-05	atm-m^3/mol-K
T	Average System Absolute Temperature	2.98E+02	K

	Cw	H	MWi	Equation (1)	Equation (2)	Equation (3)	Equation (4)	Equation (5)
Compound (b)	**GW Concentration (c)**	**Henry's Law Constant (Hi) (d)**	**Molecular Weight of Compound (d)**	**Liquid-phase Mass Transfer Coefficient (ki_L)**	**Gas-phase Mass Transfer Coefficient (ki_G)**	**Mass Transfer Coefficient (Ki)**	**Volatilization Factor (VF)**	**C_{trench}**
	(ug/L)	**(atm*m^3/mole)**	**(g/mol)**	**(cm/s)**	**(cm/s)**	**(cm/s)**	**(L/m^3)**	**(ug/m^3)**
Volatile Organic Compounds								
1,1-Dichloroethene	1.2E+00	2.6E-02	9.7E+01	3.3E-04	5.2E-02	3.3E-04	2.2E-02	2.7E-02
Chloroethane	2.3E+00	1.1E-02	6.5E+01	5.0E-04	7.8E-02	4.9E-04	3.3E-02	7.5E-02
cis-1,2-Dichloroethene	4.4E+01	4.1E-03	9.7E+01	3.3E-04	5.2E-02	3.2E-04	2.1E-02	9.4E-01
Methylene Chloride	7.0E-01	3.3E-03	8.5E+01	3.8E-04	5.9E-02	3.6E-04	2.4E-02	1.7E-02
Tetrachloroethene	4.3E-01	1.8E-02	1.7E+02	1.9E-04	3.0E-02	1.9E-04	1.3E-02	5.6E-03
trans-1,2-Dichloroethene	1.7E+00	9.4E-03	9.7E+01	3.3E-04	5.2E-02	3.2E-04	2.2E-02	3.7E-02
Trichloroethene	9.3E+01	9.9E-03	1.3E+02	2.4E-04	3.8E-02	2.4E-04	1.6E-02	1.5E+00
Vinyl Chloride	7.2E+00	2.8E-02	6.2E+01	5.1E-04	8.1E-02	5.1E-04	3.4E-02	2.5E-01

Notes:
EPC - Exposure Point Concentration.
USEPA - United States Environmental Protection Agency
Equations (1) through (5) are from the the Virginia Unified Risk Assessment Model (VURAM) under the Virginia Department of Environmental Quality (VDEQ).
(a) Constants and default values can be found found in Appendix 3 and 4 of the VURAM.
(b) Chemicals included in this table are those identified as COPC in **Table 7** and that were detected in on-property groundwater for wells screeened above 15 feet.
(c) GW Concentrations are identified in **Table 20**.
(d) Henry's Law Constant and Molecular Weight were sourced from the USEPA Regional Screening Level (RSL) calculator (May 2022).
(e) The equations that were used are for a construction worker exposed to groundwater ≤ 15 ft.

Prepared by: CF 9/21/2020
Checked by: JPK 9/21/2020
Revised by: JPK 5/24/2022
Checked by: KALS 6/15/2022

Attachment C-2
Estimated Excavation Air Concentrations - Off-Property
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Equation Number	Calculated Value	Equation (e)	Source	
Equation (1)	**Liquid-phase Mass Transfer Coefficient (ki_L)**	**ki_L = (MWO2/MWi)*0.5*(T/298)*(kL,O2)**	VDEQ	Equation 3-6
Equation (2)	**Gas-phase Mass Transfer Coefficient (ki_G)**	**ki_G = (MWH2O/MWi) *0.335* (T/298) *1.005* (kG,H2O)**	VDEQ	Equation 3-7
Equation (3)	**Mass Transfer Coefficient (Ki)**	**Ki = 1/(((1/ki_L)+((R*T)/(Hi*ki_G)))**	VDEQ	Equation 3-5
Equation (4)	**Volatilization Factor (VF)**	**VF = (Ki * A *F *CF1 * CF2 * CF3)/(ACH*V)**	VDEQ	Equation 3-4
Equation (5)	**Trench EPC Calculation (C_{trench})**	**C_{trench} = (Cw * VF)**	VDEQ	Equation 3-1

Site-Specific Input Parameters (a)		Units	Source
Trench air changes per hour (ACH)	360	per hour	VDEQ
Trench Dimensions:			
Length (l)	30.5	m	Assumed excavation length 100 ft
Width(w)	30.5	m	Assumed excavation width 100 ft
Depth (h)	1.4	m	Approximate average depth to groundwater
Total Volume of trench (V)	1319	m^3	Calculated
Area of Trench (A)	929	m^2	Calculated

Values of Constants for Use in Equation (1) through Equation (5) (a)			
Parameter		**Value**	**Units**
MWO2	Molecular weight of O2	3.20E+01	g/mol
MWi	Molecular weight of compound	Compound Specific	g/mol
MWH2O	Molecular weight of water	1.80E+01	g/mol
kL,O2	Liquid phase mass transfer coefficient of oxygen at 25 degrees C	2.00E-03	cm/s
kG,H2O	Gas-phase mass transfer coefficent of water vapor at 25 degrees C	8.33E-01	cm/s
F	Fraction of floor in which contaminant can enter	1.00E+00	Unitless
CF1	Conversion Factor 1	1.00E-03	L/cm^3
CF2	Conversion Factor 2	1.00E+04	cm^2/m^2
CF3	Conversion Factor 3	3.60E+03	s/hr
R	Ideal Gas Constant	8.20E-05	atm-m^3/mol-K
T	Average System Absolute Temperature	2.98E+02	K

Compound (b)	Cw GW Concentration (c) (ug/L)	H Henry's Law Constant (Hi) (d) (atm*m^3/mole)	MWi Molecular Weight of Compound (d) (g/mol)	Equation (1) Liquid-phase Mass Transfer Coefficient (ki_L) (cm/s)	Equation (2) Gas-phase Mass Transfer Coefficient (ki_G) (cm/s)	Equation (3) Mass Transfer Coefficient (Ki) (cm/s)	Equation (4) Volatilization Factor (VF) (L/m^3)	Equation (5) C_{trench} (ug/m^3)
Volatile Organic Compounds								
cis-1,2-Dichloroethene	1.9E+00	4.1E-03	9.7E+01	3.3E-04	5.2E-02	3.2E-04	2.2E-02	4.2E-02
trans-1,2-Dichloroethene	6.2E-01	9.4E-03	9.7E+01	3.3E-04	5.2E-02	3.2E-04	2.3E-02	1.4E-02
Trichloroethene	8.8E+00	9.9E-03	1.3E+02	2.4E-04	3.8E-02	2.4E-04	1.7E-02	1.5E-01

Notes:
EPC - Exposure Point Concentration.
USEPA - United States Environmental Protection Agency
Equations (1) through (5) are from the the Virginia Unified Risk Assessment Model (VURAM) under the Virginia Department of Environmental Quality (VDEQ).
(a) Constants and default values can be found found in Appendix 3 and 4 of the VURAM.
(b) Chemicals included in this table are those identified as COPC in **Table 7** and that were detected in off-property groundwater for wells screeened above 15 feet.
(c) GW Concentrations are identified in **Table 20**.
(d) Henry's Law Constant and Molecular Weight were sourced from the USEPA Regional Screening Level (RSL) calculator (May 2022).
(e) The equations that were used are for a construction worker exposed to groundwater ≤ 15 ft.

Prepared by: CF 9/21/2020
Checked by: JPK 9/21/2020
Revised by: JPK 5/24/2022
Checked by: KALS 6/15/2022

ATTACHMENT D

Table D-1	0-3 Soil - Trespasser
Table D-2	3-15 Soil - Trespasser
Table D-3	Surface Water - Trespasser
Table D-4	Sediment - Trespasser
Table D-5	Surface Water - Resident 1-8
Table D-6	Surface Water - Resident 8-15
Table D-7	Surface Water - Resident 16-31
Table D-8	Sediment - Resident
Table D-9	0-3 Soil - Worker
Table D-10	0-3 Soil - Worker Particulates
Table D-11	3-15 Soil - Worker
Table D-12	3-15 Soil - Worker Particulates
Table D-13	0-15 Soil - Construction Worker
Table D-14	On-Property Groundwater - Construction Worker
Table D-15	On-Property Excavation Air - Construction Worker
Table D-16	Off-Property Groundwater - Construction Worker
Table D-17	Off-Property Excavation Air - Construction Worker

Attachment D-1
0-3 ft Soil - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Method 3 Risk Assessment for a Trespasser Exposed to Chemicals in Soil - Shortform 2012 (sf12ts)

Index

Tab		
EPCs	Table TS-1:	Select chemicals and enter Exposure Point Concentrations (EPCs). Estimated risks are shown to the right.
C Eq	Table TS-2:	Equations to calculate cancer risks
cNC Eq	Table TS-3:	Equations to calculate chronic noncancer risks
scNC Eq	Table TS-4:	Equations to calculate subchronic noncancer risks
Exp	Table TS-5:	Definitions and exposure factors
Chem	Table TS-6:	Chemical-specific data
Cyanide	Table TS-7:	Cyanide calculations

Spreadsheets designed by Andrew Friedmann, MassDEP
Questions and Comments may be addressed to:
Lydia Thompson
Massachusetts Department of Environmental Protection
Office of Research and Standards
One Winter Street
Boston, MA 02108 USA
Telephone: (617) 556-1165
Fax: (617) 556-1006
Email: Lydia.Thompson@state.ma.us

Attachment D-1
0-3 ft Soil - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-1
Exposure Point Concentration (EPC)
Based on Trespasser Ages 11-18 (Cancer and Non-Cancer)

ShortForm Version 10-12 Prepared by: CF 5/10/2022
Vlookup Version v0315 Checked by: KALS 6/16/2022

ELCR (all chemicals) = 8.1E-07
Chronic HI (all chemicals) = 4.7E-02
Subchronic HI (all chemicals) = 7.9E-02

****Do not insert or delete any rows****
Click on empty cell below and select OHM using arrow.

Oil or Hazardous Material	COC Name	EPC (mg/kg)	$ELCR_{ingestion}$	$ELCR_{dermal}$	$ELCR_{total}$	Chronic HQ_{ing}	Chronic HQ_{derm}	Chronic HQ_{total}	Subchronic HQ_{ing}	Subchronic HQ_{derm}	Subchronic HQ_{total}
TRICHLOROETHANE, 1,1,1-	1,1,1-Trichloroethane	9.0E-03				7.3E-10	1.8E-10	9.1E-10	4.6E-10	9.5E-11	5.5E-10
DICHLOROETHYLENE, CIS-1,2-	cis-1,2-Dichloroethene	1.8E-02				1.4E-06	3.6E-07	1.8E-06	3.2E-07	6.6E-08	3.8E-07
Ethylbenzene	Ethylbenzene	3.7E-03				1.2E-08	3.0E-09	1.5E-08	2.6E-08	5.5E-09	3.2E-08
XYLENES (Mixed Isomers)	m&p-Xylenes	1.3E-02				1.1E-08	2.6E-09	1.3E-08	1.2E-08	2.4E-09	1.4E-08
BROMOMETHANE	Methylene Chloride	8.6E-03				1.0E-06	2.5E-07	1.2E-06	6.1E-07	1.3E-07	7.4E-07
XYLENES (Mixed Isomers)	o-Xylene	3.6E-03				2.9E-09	7.2E-10	3.6E-09	3.2E-09	6.6E-10	3.9E-09
Tetrachloroethylene	Tetrachloroethene	1.8E-02	5.7E-12	1.4E-12	7.1E-12	4.8E-07	1.2E-07	5.9E-07	1.0E-06	2.2E-07	1.3E-06
Toluene	Toluene	4.0E-04				8.1E-10	2.0E-10	1.0E-09	1.8E-10	3.7E-11	2.1E-10
Trichloroethylene	Trichloroethene	2.0E-02	1.7E-11	4.1E-12	2.1E-11	6.6E-06	1.6E-06	8.3E-06	1.5E-05	3.0E-06	1.8E-05
Methylnaphthalene, 2-	2-Methylnaphthalene	3.0E-01				3.7E-06	1.0E-05	1.4E-05	8.0E-06	1.9E-05	2.7E-05
Acenaphthene	Acenaphthene	2.8E-01				2.3E-07	6.3E-07	8.6E-07	1.5E-07	3.5E-07	5.0E-07
Anthracene	Anthracene	2.5E-01				4.0E-08	1.1E-07	1.5E-07	2.7E-08	6.1E-08	8.8E-08
Benzo(g,h,i)perylene	Benzo[g,h,i]perylene	9.3E-02				1.5E-07	4.1E-07	5.6E-07	3.3E-08	7.6E-08	1.1E-07
Fluorene	Fluorene	2.6E-01				3.1E-07	8.6E-07	1.2E-06	6.9E-08	1.6E-07	2.3E-07
Naphthalene	Naphthalene	3.4E-01				8.3E-07	2.3E-06	3.1E-06	1.8E-07	4.2E-07	6.0E-07
Phenanthrene	Phenanthrene	3.7E-01				6.0E-07	1.6E-06	2.2E-06	1.3E-07	3.0E-07	4.3E-07
Benzo(a)anthracene	Benzo[a]anthracene	2.5E-01	8.9E-10	4.9E-10	1.4E-09	4.1E-07	2.2E-07	6.3E-07	8.9E-08	4.1E-08	1.3E-07
Benzo(a)pyrene	Benzo[a]pyrene	2.2E-01	7.9E-09	4.4E-09	1.2E-08	3.6E-07	2.0E-07	5.6E-07	7.9E-08	3.7E-08	1.2E-07
Benzo(k)fluoranthene	Benzo[k]fluoranthene	2.4E-01	8.6E-11	4.7E-11	1.3E-10	3.9E-07	2.1E-07	6.1E-07	8.5E-08	4.0E-08	1.3E-07
AROMATICS C11 to C22	C11-C22 Aromatics	8.6E+00				1.4E-05	3.8E-05	5.2E-05	3.1E-06	7.1E-06	1.0E-05
ALIPHATICS C19 to C36	C19-C36 Aliphatics	6.4E+00				5.1E-07	8.5E-07	1.4E-06	3.8E-07	5.2E-07	9.0E-07
ALIPHATICS C9 to C18	C9-C18 Aliphatics	4.2E+00				6.7E-06	1.1E-05	1.8E-05	1.5E-06	2.0E-06	3.5E-06
Chrysene	Chrysene	2.6E-01	9.1E-11	5.0E-11	1.4E-10	4.2E-07	2.3E-07	6.5E-07	9.1E-08	4.2E-08	1.3E-07
Fluoranthene	Fluoranthene	3.2E-01				3.9E-07	1.1E-06	1.4E-06	3.4E-07	7.8E-07	1.1E-06
Pyrene	Pyrene	3.3E-01				5.3E-07	1.4E-06	2.0E-06	1.2E-07	2.7E-07	3.8E-07
Aluminum	Aluminum	1.6E+04				2.6E-03	2.2E-03	4.8E-03	5.8E-03	4.0E-03	9.8E-03
Antimony	Antimony	1.4E+00				5.7E-04	4.7E-04	1.0E-03	1.2E-03	8.6E-04	2.1E-03
Arsenic	Arsenic	4.4E+01	5.4E-07	2.6E-07	8.0E-07	1.2E-02	5.9E-03	1.8E-02	2.6E-02	1.1E-02	3.7E-02
Barium	Barium	6.7E+01				5.5E-05	4.5E-05	1.0E-04	3.4E-04	2.4E-04	5.8E-04
Beryllium	Beryllium	3.7E-01				3.0E-05	2.5E-05	5.5E-05	2.6E-05	1.8E-05	4.5E-05
CHROMIUM(III)	Chromium	1.8E+02				1.9E-05	1.6E-05	3.4E-05	4.1E-05	2.9E-05	7.0E-05
Cobalt	Cobalt	1.0E+01				5.5E-03	4.6E-03	1.0E-02	1.2E-03	8.4E-04	2.0E-03
Copper	Copper	1.1E+02				4.6E-04	3.8E-04	8.4E-04	4.0E-03	2.8E-03	6.8E-03
CHROMIUM(VI)	Hexavalent Chromium	6.6E+00				3.5E-04	2.9E-04	6.5E-04	1.2E-04	8.1E-05	2.0E-04
Lead	Lead	5.5E+01				6.0E-03	5.9E-04	6.6E-03	1.3E-02	1.1E-03	1.4E-02
Manganese	Manganese	3.1E+02				3.6E-04	3.0E-04	6.5E-04	7.9E-04	5.4E-04	1.3E-03
Mercury	Mercury	6.2E-02				1.7E-05	2.8E-05	4.5E-05	3.7E-05	5.1E-05	8.8E-05
Nickel	Nickel	3.6E+01				2.9E-04	4.8E-04	7.7E-04	6.4E-04	8.8E-04	1.5E-03
Selenium	Selenium	7.3E-01				2.4E-05	1.9E-06	2.6E-05	5.2E-05	3.6E-06	5.5E-05
Silver	Silver	1.4E+00				4.6E-05	1.1E-04	1.6E-04	1.0E-04	2.1E-04	3.1E-04
Thallium	Thallium	1.1E+00				2.2E-03	1.8E-04	2.4E-03	4.9E-04	3.4E-05	5.2E-04
Vanadium	Vanadium	3.8E+01				6.9E-04	5.7E-04	1.3E-03	1.5E-03	1.0E-03	2.6E-03
Zinc	Zinc	5.9E+01				3.2E-05	2.6E-05	5.8E-05	7.0E-05	4.8E-05	1.2E-04

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-1
0-3 ft Soil - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-2
Equations to Calculate Cancer Risk for a Trespasser (Age 11-18 years)

Cancer Risk from Ingestion

$$ELCR_{ing} = LADD_{ing} * CSF$$

$$LADD_{ing} = \frac{[OHM]_{soil} * IR * RAF_{c\text{-}ing} * EF_{ing} * ED * EP * C}{BW * AP_{lifetime}}$$

Cancer Risk from Dermal Absorption

$$ELCR_{derm} = LADD_{derm} * CSF$$

$$LADD_{derm} = \frac{[OHM]_{soil} * SA * RAF_{c\text{-}derm} * SAF * EF_{derm} * ED * EP * C}{BW * AP_{lifetime}}$$

Vlookup Version v0315

Parameter	Value	Units
CSF	OHM specific	$(mg/kg\text{-}day)^{-1}$
LADD	age/OHM specific	mg/kg-day
$[OHM]_{soil}$	OHM specific	mg/kg
IR	50	mg/day
$RAF_{c\text{-}ing}$	OHM specific	dimensionless
$RAF_{c\text{-}derm}$	OHM specific	dimensionless
$EF_{ing,derm}$	0.164	event/day
ED	1	day/event
EP	7	years
C	0.000001	kg/mg
BW	50.7	kg
$AP_{(lifetime)}$	70	years
SA	2940	cm^2 / day
SAF	0.14	mg/cm^2

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-1
0-3 ft Soil - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-3

Equations to Calculate Chronic Noncancer Risk for a Trespasser (Age 11-18 years)

Vlookup Version v0315

Chronic Noncancer Risk from Ingestion

$$HQ_{ing} = \frac{ADD_{ing}}{RfD}$$

$$ADD_{ing} = \frac{[OHM]_{soil} * IR * RAF_{nc\text{-}ing} * EF_{ing} * ED * EP * C}{BW * AP}$$

Chronic Noncancer Risk from Dermal Absorption

$$HQ_{derm} = \frac{ADD_{ing,derm}}{RfD}$$

$$ADD_{derm} = \frac{[OHM]_{soil} * SA * RAF_{nc\text{-}derm} * SAF * EF_{derm} * ED * EP * C}{BW * AP}$$

Parameter	Value	Units
RfD	OHM specific	mg/kg-day
ADD	OHM specific	mg/kg-day
$[OHM]_{soil}$	OHM specific	mg/kg
IR	50	mg/day
$RAF_{nc\text{-}ing}$	OHM specific	dimensionless
$RAF_{nc\text{-}derm}$	OHM specific	dimensionless
$EF_{ing,derm}$	0.164	event/day
ED	1	day/event
EP	7	years
C	0.000001	kg/mg
BW	50.7	kg
AP	7	year
SA	2940	cm^2 / day
SAF	0.14	mg/cm^2

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-1
0-3 ft Soil - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-4

Equations to Calculate Subchronic Noncancer Risk for a Trespasser (Age 11-12 years)

Vlookup Version v0315

Subchronic Noncancer Risk from Ingestion

$$HQ_{ing} = \frac{ADD_{ing}}{RfD_{subchronic}}$$

$$ADD_{ing} = \frac{[OHM]_{soil} * IR * RAF_{nc\text{-}ing} * EF_{ing} * ED * EP * C}{BW * AP}$$

Subchronic Noncancer Risk from Dermal Absorption

$$HQ_{derm} = \frac{ADD_{derm}}{RfD_{subchronic}}$$

$$ADD_{derm} = \frac{[OHM]_{soil} * SA * RAF_{nc\text{-}derm} * SAF * EF_{derm} * ED * EP * C}{BW * AP}$$

Parameter	Value	Units
RfD	OHM specific	mg/kg-day
ADD	OHM specific	mg/kg-day
$[OHM]_{soil}$	OHM specific	mg/kg
IR	50	mg/day
$RAF_{nc\text{-}ing}$	OHM specific	dimensionless
$RAF_{nc\text{-}derm}$	OHM specific	dimensionless
$EF_{ing,derm}$	0.286	event/day
ED	1	day/event
EP	0.577	years
C	0.000001	kg/mg
BW	40.3	kg
AP	0.577	year
SA	2477	cm^2 / day
SAF	0.14	mg/cm^2

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-1
0-3 ft Soil - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-5
Definitions and Exposure Factors

Vlookup Version v0315

Parameter	Value	Units	Notes
ELCR - Excess Lifetime Cancer Risk	chemical specific	dimensionless	Pathway specific (ing =ingestion, derm=dermal, inh=inhalation)
CSF - Cancer Slope Factor	chemical specific	$(mg/kg\text{-}day)^{-1}$	see Table RS-7
LADD - Lifetime Average Daily Dose	chemical specific	mg/kg-day	Pathway specific
HQ - Hazard Quotient	chemical specific	dimensionless	Pathway specific (ing =ingestion, derm=dermal, inh=inhalation)
RfD - Reference Dose	chemical specific	mg/kg-day	see Table RS-7
ADD - Average Daily Dose	chemical specific	mg/kg-day	Pathway specific
EPC - Exposure Point Concentration	chemical specific	mg/kg	
IR - Soil Ingestion Rate	50	mg/day	MADEP. 2002. Technical Update: Calculation of an Enhanced Soil Ingestion Rate. (http://www.mass.gov/dep/ors/orspubs.htm)
RAF_c - Relative Absorption Factor for Cancer Effects	chemical specific	dimensionless	
$EF_{subchronic}$ - Exposure Frequency for subchronic ingestion or dermal exposure	0.286	event/day	2 days/week
$EF_{chronic}$ - Exposure Frequency for chronic ingestion or dermal exposure	0.164	event/day	2 days/week, 30 weeks/year
EF_{cancer} - Exposure Frequency for cancer, ingestion or dermal exposure	0.164	event/day	2 days/week, 30 weeks/year
ED - Exposure Duration	1	day/event	
$EP_{(11\text{-}12)}$ - Exposure Period for age group 11-12	0.577	years	30 weeks
$EP_{(11\text{-}18)}$ - Exposure Period for age group 11-18	7	years	
$BW_{(11\text{-}12)}$ - Body Weight for age group 11-12	40.3	kg	U.S. EPA. 1997. Exposure Factors Handbook. Table 7-7
$BW_{(11\text{-}18)}$ - Body Weight for age group 11-18	50.7	kg	Ibid
$AP_{subchronic}$ - Averaging Period for subchronic noncancer	0.577	years	30 weeks
$AP_{chronic}$ - Averaging Period for chronic noncancer	7	years	
AP_{cancer} - Averaging Period for lifetime	70	years	
$SA_{(11\text{-}12)}$ - Surface Area for age group 11-12	2477	cm^2 / day	50th percentile of forearms, hands, and feet for females.
$SA_{(11\text{-}18)}$ - Surface Area for age group 11-18	2940	cm^2 / day	MADEP 1995 Guidance for Disposal Site Risk Characterization, Table B-2. Ibid
SAF - Surface Adherence Factor, Trespasser	0.14	mg/cm^2	SAF developed for ShortForm according to procedure outlined in MA DEP Technical Update: Weighted Skin-Soil Adherence Factors, April 2002.

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-1
0-3 ft Soil - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-6
Chemical-Specific Data

Vlookup Version v0315

Oil or Hazardous Material	CSF $(mg/kg\text{-}day)^{-1}$	$RAF_{c\text{-}ing}$	$RAF_{c\text{-}derm}$	Chronic RfD mg/kg-day	Subchronic RfD mg/kg-day	Chronic $RAF_{nc\text{-}ing}$	Chronic $RAF_{nc\text{-}derm}$	Subchronic $RAF_{nc\text{-}ing}$	Subchronic $RAF_{nc\text{-}derm}$
TRICHLOROETHANE, 1				2.0E+00	7.0E+00	1	0.03	1	0.03
DICHLOROETHYLENE,				2.0E-03	2.0E-02	1	0.03	1	0.03
Ethylbenzene				5.0E-02	5.0E-02	1	0.03	1	0.03
XYLENES (Mixed Isome				2.0E-01	4.0E-01	1	0.03	1	0.03
BROMOMETHANE				1.4E-03	5.0E-03	1	0.03	1	0.03
XYLENES (Mixed Isome				2.0E-01	4.0E-01	1	0.03	1	0.03
Tetrachloroethylene	2.0E-02	1.00	0.03	6.0E-03	6.0E-03	1	0.03	1	0.03
Toluene				8.0E-02	8.0E-01	1	0.03	1	0.03
Trichloroethylene	5.0E-02	1.00	0.03	5.0E-04	5.0E-04	1	0.03	1	0.03
Methylnaphthalene, 2-				4.0E-03	4.0E-03	0.3	0.1	0.3	0.1
Acenaphthene				6.0E-02	2.0E-01	0.3	0.1	0.3	0.1
Anthracene				3.0E-01	1.0E+00	0.3	0.1	0.3	0.1
Benzo(g,h,i)perylene				3.0E-02	3.0E-01	0.3	0.1	0.3	0.1
Fluorene				4.0E-02	4.0E-01	0.3	0.1	0.3	0.1
Naphthalene				2.0E-02	2.0E-01	0.3	0.1	0.3	0.1
Phenanthrene				3.0E-02	3.0E-01	0.3	0.1	0.3	0.1
Benzo(a)anthracene	7.3E-01	0.30	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Benzo(a)pyrene	7.3E+00	0.30	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Benzo(k)fluoranthene	7.3E-02	0.30	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
AROMATICS C11 to				3.0E-02	3.0E-01	0.3	0.1	0.3	0.1
ALIPHATICS C19 to				2.0E+00	6.0E+00	1	0.2	1	0.2
ALIPHATICS C9 to (				1.0E-01	1.0E+00	1	0.2	1	0.2
Chrysene	7.3E-02	0.30	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Fluoranthene				4.0E-02	1.0E-01	0.3	0.1	0.3	0.1
Pyrene				3.0E-02	3.0E-01	0.3	0.1	0.3	0.1
Aluminum				1.0E+00	1.0E+00	1	0.1	1	0.1
Antimony				4.0E-04	4.0E-04	1	0.1	1	0.1
Arsenic	1.5E+00	0.50	0.03	3.0E-04	3.0E-04	0.5	0.03	0.5	0.03
Barium				2.0E-01	7.0E-02	1	0.1	1	0.1
Beryllium				2.0E-03	5.0E-03	1	0.1	1	0.1
CHROMIUM(III)				1.5E+00	1.5E+00	1	0.1	1	0.1
Cobalt				3.0E-04	3.0E-03	1	0.1	1	0.1
Copper				4.0E-02	1.0E-02	1	0.1	1	0.1
CHROMIUM(VI)				3.0E-03	2.0E-02	1	0.1	1	0.1
Lead				7.5E-04	7.5E-04	0.5	0.006	0.5	0.006
Manganese				1.4E-01	1.4E-01	1	0.1	1	0.1
Mercury				3.0E-04	3.0E-04	0.5	0.1	0.5	0.1
Nickel				2.0E-02	2.0E-02	1	0.2	1	0.2
Selenium				5.0E-03	5.0E-03	1	0.01	1	0.01
Silver				5.0E-03	5.0E-03	1	0.3	1	0.3
Thallium				8.0E-05	8.0E-04	1	0.01	1	0.01
Vanadium				9.0E-03	9.0E-03	1	0.1	1	0.1
Zinc				3.0E-01	3.0E-01	1	0.1	1	0.1

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-1
0-3 ft Soil - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-7
Cyanide Calculations

The soil cyanide concentration limit set to protect a trespasser against an acute, potentially lethal one-time dose of cyanide from incidental ingestion of contaminated soil is 8,000 mg/kg_{soil}. This is the concentration of available cyanide in soil below which acute human health effects would not be expected following a one-time exposure. This soil concentration is calculated using the equation below with a one-time soil ingestion estimate of 50 mg_{soil} and an available cyanide dose limit of 0.01 $mg/kg_{body\ weight}$.

MassDEP's guidance on evaluating the risk from a one-time cyanide dose considers cyanide's potentially lethal effects as well as information on cyanide metabolism:

> Cyanides are detoxified rapidly by the body, and a large acute dose which overwhelms the detoxification mechanism is potentially more toxic than the same dose distributed over a period of hours. (MassDEP *Background Documentation for the Development of an Available Cyanide Benchmark Concentration,* originally dated October 1992, Modified August 1998)

Assessment of a potential one-time dose requires an estimate of the maximum soil concentration the trespasser could contact at any one time. The average soil concentration within a typical exposure area will underestimate the potential one-time dose. Therefore, to assess the acute risk of a one-time potentially lethal dose, the EPC for cyanide should be a conservative estimate of the maximum soil concentration.

The trespasser soil concentration limit to protect against adverse effects from an acute (one-time) exposure to cyanide is 8000 mg/kg.

Concentration Calculation for Cyanide

$$\text{Concentration} = \frac{\text{HQ x Acute Dose Limit x BW}}{\text{IR x RAF x Conversion Factor}}$$

Parameter	Value	Units
HQ (Hazard Quotient)	1	(unitless)
Acute Dose Limit	0.01	mg avail. CN/ kg BW
BW (Body Weight) 11-12	40.3	kg
IR (1-time reasonable max)	50	mg
Conversion Factor	1.0E-06	kg soil / mg soil
RAF	1	(unitless)

The toxicological basis for estimating an allowable one-time dose is documented in MassDEP's 1992 *Background Documentation for the Development of an "Available Cyanide" Benchmark Concentration,* which is published at:
http://www.mass.gov/eea/docs/dep/toxics/stypes/dscyanide.pdf

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-2
3-15 ft Soil - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Method 3 Risk Assessment for a Trespasser Exposed to Chemicals in Soil - Shortform 2012 (sf12ts)

Index

Tab	
EPCs	Table TS-1: Select chemicals and enter Exposure Point Concentrations (EPCs). Estimated risks are shown to the right.
C Eq	Table TS-2: Equations to calculate cancer risks
cNC Eq	Table TS-3: Equations to calculate chronic noncancer risks
scNC Eq	Table TS-4: Equations to calculate subchronic noncancer risks
Exp	Table TS-5: Definitions and exposure factors
Chem	Table TS-6: Chemical-specific data
Cyanide	Table TS-7: Cyanide calculations

Spreadsheets designed by Andrew Friedmann, MassDEP
Questions and Comments may be addressed to:
Lydia Thompson
Massachusetts Department of Environmental Protection
Office of Research and Standards
One Winter Street
Boston, MA 02108 USA
Telephone: (617) 556-1165
Fax: (617) 556-1006
Email: Lydia.Thompson@state.ma.us

Attachment D-2
3-15 ft Soil - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-1
Exposure Point Concentration (EPC)
Based on Trespasser Ages 11-18 (Cancer and Non-Cancer)

ShortForm Version 10-12
Vlookup Version v0315

Prepared by: CF 5/10/2022
Checked by: KALS 6/16/2022

ELCR (all chemicals) = 7.5E-07
Chronic HI (all chemicals) = 4.9E-02
Subchronic HI (all chemicals) = 7.9E-02

****Do not insert or delete any rows****
Click on empty cell below and select OHM using arrow.

Oil or Hazardous Material		EPC (mg/kg)	$ELCR_{ingestion}$	$ELCR_{dermal}$	$ELCR_{total}$	Chronic HQ_{ing}	Chronic HQ_{derm}	Chronic HQ_{total}	Subchronic HQ_{ing}	Subchronic HQ_{derm}	Subchronic HQ_{total}
TRICHLOROETHANE, 1,1,1-	1,1,1-Trichloroethane	5.8E-02				4.7E-09	1.2E-09	5.9E-09	2.9E-09	6.1E-10	3.5E-09
DICHLOROETHYLENE, CIS-1,2-	cis-1,2-Dichloroethene	8.5E-02				6.9E-06	1.7E-06	8.6E-06	1.5E-06	3.1E-07	1.8E-06
AROMATICS C9 to C10	Isopropylbenzene	1.1E-01				5.8E-07	9.6E-07	1.5E-06	1.3E-07	1.8E-07	3.0E-07
Tetrachloroethylene	Tetrachloroethene	4.2E-02	1.4E-11	3.4E-12	1.7E-11	1.1E-06	2.8E-07	1.4E-06	2.5E-06	5.1E-07	3.0E-06
Trichloroethylene	Trichloroethene	4.2E-01	3.4E-10	8.3E-11	4.2E-10	1.3E-04	3.3E-05	1.7E-04	2.9E-04	6.1E-05	3.6E-04
Vinyl chloride	Vinyl chloride	5.4E-02	1.2E-09	3.0E-10	1.5E-09	2.9E-06	7.2E-07	3.6E-06	6.4E-06	1.3E-06	7.7E-06
Methylnaphthalene, 2-	2-Methylnaphthalene	2.1E-01				2.6E-06	7.0E-06	9.6E-06	5.6E-06	1.3E-05	1.9E-05
BIS(2-ETHYLHEXYL)PHTHALATE	BIS(2-ETHYLHEXYL)PHTHALATE	2.0E-01	4.5E-11	3.7E-11	8.1E-11	1.6E-06	1.3E-06	2.9E-06	3.5E-06	2.4E-06	5.9E-06
Naphthalene	Naphthalene	2.5E-01				6.0E-07	1.6E-06	2.2E-06	1.3E-07	3.0E-07	4.3E-07
Phenanthrene	Phenanthrene	3.3E-01				5.3E-07	1.5E-06	2.0E-06	1.2E-07	2.7E-07	3.9E-07
Anthracene	Anthracene	2.1E-01				3.3E-08	9.1E-08	1.2E-07	2.2E-08	5.0E-08	7.2E-08
Benzo(a)anthracene	Benzo[a]anthracene	2.4E-01	8.6E-10	4.7E-10	1.3E-09	3.9E-07	2.2E-07	6.1E-07	8.6E-08	4.0E-08	1.3E-07
Benzo(a)pyrene	Benzo[a]pyrene	2.2E-01	7.8E-09	4.3E-09	1.2E-08	3.6E-07	2.0E-07	5.5E-07	7.8E-08	3.6E-08	1.1E-07
Benzo(g,h,i)perylene	Benzo[g,h,i]perylene	2.0E-01				3.2E-07	8.9E-07	1.2E-06	7.1E-08	1.6E-07	2.4E-07
Benzo(k)fluoranthene	Benzo[k]fluoranthene	2.2E-01	7.7E-11	4.2E-11	1.2E-10	3.5E-07	1.9E-07	5.5E-07	7.7E-08	3.6E-08	1.1E-07
AROMATICS C11 to C22	C11-C22 Aromatics	4.4E+00				7.1E-06	2.0E-05	2.7E-05	1.6E-06	3.6E-06	5.2E-06
ALIPHATICS C19 to C36	C19-C36 Aliphatics	4.6E+00				3.8E-07	6.2E-07	1.0E-06	2.7E-07	3.8E-07	6.6E-07
ALIPHATICS C9 to C18	C9-C18 Aliphatics	3.6E+00				5.9E-06	9.7E-06	1.6E-05	1.3E-06	1.8E-06	3.1E-06
Chrysene	Chrysene	2.4E-01	8.5E-11	4.7E-11	1.3E-10	3.9E-07	2.1E-07	6.0E-07	8.5E-08	3.9E-08	1.2E-07
DIBENZO(a,h)ANTHRACENE	Dibenz(a,h)anthracene	2.0E-01	7.0E-09	3.8E-09	1.1E-08	3.2E-07	1.7E-07	4.9E-07	7.0E-08	3.2E-08	1.0E-07
Fluoranthene	Fluoranthene	2.9E-01				3.5E-07	9.6E-07	1.3E-06	3.1E-07	7.1E-07	1.0E-06
Fluorene	Fluorene	1.9E-01				2.4E-07	6.5E-07	8.8E-07	5.2E-08	1.2E-07	1.7E-07
Pyrene	Pyrene	2.8E-01				4.5E-07	1.2E-06	1.7E-06	9.9E-08	2.3E-07	3.3E-07
AROMATICS C9 to C10	C9-C10 Aromatics	8.7E+01				4.7E-04	7.7E-04	1.2E-03	1.0E-04	1.4E-04	2.5E-04
ALIPHATICS C9 to C18	C9-C12 Aliphatics	1.8E+02				3.0E-04	4.9E-04	7.9E-04	6.5E-05	9.1E-05	1.6E-04
Ethylbenzene	Ethylbenzene	7.9E+01				2.6E-04	6.3E-05	3.2E-04	5.6E-04	1.2E-04	6.8E-04
XYLENES (Mixed Isomers)	m&p-Xylenes	3.6E+02				2.9E-04	7.2E-05	3.6E-04	3.2E-04	6.7E-05	3.9E-04
XYLENES (Mixed Isomers)	o-Xylene	8.8E+01				7.1E-05	1.8E-05	8.9E-05	7.8E-05	1.6E-05	9.4E-05
Toluene	Toluene	1.2E+01				2.5E-05	6.2E-06	3.2E-05	5.5E-06	1.2E-06	6.7E-06
Aluminum	Aluminum	1.3E+04				2.1E-03	1.8E-03	3.9E-03	4.7E-03	3.3E-03	8.0E-03
Antimony	Antimony	2.1E+00				8.5E-04	7.0E-04	1.6E-03	1.9E-03	1.3E-03	3.2E-03
Arsenic	Arsenic	4.0E+01	4.8E-07	2.4E-07	7.2E-07	1.1E-02	5.3E-03	1.6E-02	2.3E-02	9.8E-03	3.3E-02
Barium	Barium	6.5E+01				5.3E-05	4.3E-05	9.6E-05	3.3E-04	2.3E-04	5.6E-04
Beryllium	Beryllium	3.3E-01				2.7E-05	2.2E-05	4.9E-05	2.4E-05	1.6E-05	4.0E-05
CHROMIUM(III)	Chromium	4.1E+02				4.5E-05	3.7E-05	8.2E-05	9.8E-05	6.8E-05	1.7E-04
Cobalt	Cobalt	9.5E+00				5.1E-03	4.2E-03	9.4E-03	1.1E-03	7.8E-04	1.9E-03
Copper	Copper	2.3E+02				9.4E-04	7.7E-04	1.7E-03	8.2E-03	5.7E-03	1.4E-02
CHROMIUM(VI)	Hexavalent Chromium	3.1E+01				1.7E-03	1.4E-03	3.0E-03	5.4E-04	3.8E-04	9.2E-04
Lead	Lead	3.5E+01				3.8E-03	3.7E-04	4.1E-03	8.2E-03	6.9E-04	8.9E-03
Manganese	Manganese	2.9E+02				3.4E-04	2.8E-04	6.2E-04	7.4E-04	5.1E-04	1.3E-03
Mercury	Mercury	4.0E-02				1.1E-05	1.8E-05	2.9E-05	2.4E-05	3.3E-05	5.6E-05
Nickel	Nickel	3.9E+01				3.2E-04	5.2E-04	8.4E-04	6.9E-04	9.6E-04	1.7E-03
Selenium	Selenium	6.4E-01				2.1E-05	1.7E-06	2.2E-05	4.5E-05	3.1E-06	4.9E-05
Silver	Silver	3.4E+00				1.1E-04	2.8E-04	3.9E-04	2.4E-04	5.1E-04	7.5E-04
Thallium	Thallium	1.4E+00				2.8E-03	2.3E-04	3.1E-03	6.2E-04	4.3E-05	6.6E-04
Vanadium	Vanadium	3.1E+01				5.5E-04	4.5E-04	1.0E-03	1.2E-03	8.3E-04	2.0E-03
Zinc	Zinc	4.1E+01				2.2E-05	1.8E-05	4.0E-05	4.8E-05	3.4E-05	8.2E-05

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-2
3-15 ft Soil - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-2
Equations to Calculate Cancer Risk for a Trespasser (Age 11-18 years)

Cancer Risk from Ingestion

$$ELCR_{ing} = LADD_{ing} * CSF$$

$$LADD_{ing} = \frac{[OHM]_{soil} * IR * RAF_{c\text{-}ing} * EF_{ing} * ED * EP * C}{BW * AP_{lifetime}}$$

Cancer Risk from Dermal Absorption

$$ELCR_{derm} = LADD_{derm} * CSF$$

$$LADD_{derm} = \frac{[OHM]_{soil} * SA * RAF_{c\text{-}derm} * SAF * EF_{derm} * ED * EP * C}{BW * AP_{lifetime}}$$

Vlookup Version v0315

Parameter	Value	Units
CSF	OHM specific	$(mg/kg\text{-}day)^{-1}$
LADD	age/OHM specific	mg/kg-day
$[OHM]_{soil}$	OHM specific	mg/kg
IR	50	mg/day
$RAF_{c\text{-}ing}$	OHM specific	dimensionless
$RAF_{c\text{-}derm}$	OHM specific	dimensionless
$EF_{ing,derm}$	0.164	event/day
ED	1	day/event
EP	7	years
C	0.000001	kg/mg
BW	50.7	kg
$AP_{(lifetime)}$	70	years
SA	2940	cm^2 / day
SAF	0.14	mg/cm^2

Attachment D-2
3-15 ft Soil - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-3

Equations to Calculate Chronic Noncancer Risk for a Trespasser (Age 11-18 years)

Vlookup Version v0315

Chronic Noncancer Risk from Ingestion

$$HQ_{ing} = \frac{ADD_{ing}}{RfD}$$

$$ADD_{ing} = \frac{[OHM]_{soil} * IR * RAF_{nc\text{-}ing} * EF_{ing} * ED * EP * C}{BW * AP}$$

Chronic Noncancer Risk from Dermal Absorption

$$HQ_{derm} = \frac{ADD_{ing,derm}}{RfD}$$

$$ADD_{derm} = \frac{[OHM]_{soil} * SA * RAF_{nc\text{-}derm} * SAF * EF_{derm} * ED * EP * C}{BW * AP}$$

Parameter	Value	Units
RfD	OHM specific	mg/kg-day
ADD	OHM specific	mg/kg-day
$[OHM]_{soil}$	OHM specific	mg/kg
IR	50	mg/day
$RAF_{nc\text{-}ing}$	OHM specific	dimensionless
$RAF_{nc\text{-}derm}$	OHM specific	dimensionless
$EF_{ing,derm}$	0.164	event/day
ED	1	day/event
EP	7	years
C	0.000001	kg/mg
BW	50.7	kg
AP	7	year
SA	2940	cm^2 / day
SAF	0.14	mg/cm^2

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-2
3-15 ft Soil - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-4

Equations to Calculate Subchronic Noncancer Risk for a Trespasser (Age 11-12 years)

Vlookup Version v0315

Subchronic Noncancer Risk from Ingestion

$$HQ_{ing} = \frac{ADD_{ing}}{RfD_{subchronic}}$$

$$ADD_{ing} = \frac{[OHM]_{soil} * IR * RAF_{nc\text{-}ing} * EF_{ing} * ED * EP * C}{BW * AP}$$

Subchronic Noncancer Risk from Dermal Absorption

$$HQ_{derm} = \frac{ADD_{derm}}{RfD_{subchronic}}$$

$$ADD_{derm} = \frac{[OHM]_{soil} * SA * RAF_{nc\text{-}derm} * SAF * EF_{derm} * ED * EP * C}{BW * AP}$$

Parameter	Value	Units
RfD	OHM specific	mg/kg-day
ADD	OHM specific	mg/kg-day
$[OHM]_{soil}$	OHM specific	mg/kg
IR	50	mg/day
$RAF_{nc\text{-}ing}$	OHM specific	dimensionless
$RAF_{nc\text{-}derm}$	OHM specific	dimensionless
$EF_{ing,derm}$	0.286	event/day
ED	1	day/event
EP	0.577	years
C	0.000001	kg/mg
BW	40.3	kg
AP	0.577	year
SA	2477	cm^2 / day
SAF	0.14	mg/cm^2

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-2
3-15 ft Soil - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-5
Definitions and Exposure Factors

Vlookup Version v0315

Parameter	Value	Units	Notes
ELCR - Excess Lifetime Cancer Risk	chemical specific	dimensionless	Pathway specific (ing =ingestion, derm=dermal, inh=inhalation)
CSF - Cancer Slope Factor	chemical specific	$(mg/kg\text{-}day)^{-1}$	see Table RS-7
LADD - Lifetime Average Daily Dose	chemical specific	mg/kg-day	Pathway specific
HQ - Hazard Quotient	chemical specific	dimensionless	Pathway specific (ing =ingestion, derm=dermal, inh=inhalation)
RfD - Reference Dose	chemical specific	mg/kg-day	see Table RS-7
ADD - Average Daily Dose	chemical specific	mg/kg-day	Pathway specific
EPC - Exposure Point Concentration	chemical specific	mg/kg	
IR - Soil Ingestion Rate	50	mg/day	MADEP. 2002. Technical Update: Calculation of an Enhanced Soil Ingestion Rate. (http://www.mass.gov/dep/ors/orspubs.htm)
RAF_c - Relative Absorption Factor for Cancer Effects	chemical specific	dimensionless	
$EF_{subchronic}$ - Exposure Frequency for subchronic ingestion or dermal exposure	0.286	event/day	2 days/week
$EF_{chronic}$ - Exposure Frequency for chronic ingestion or dermal exposure	0.164	event/day	2 days/week, 30 weeks/year
EF_{cancer} - Exposure Frequency for cancer, ingestion or dermal exposure	0.164	event/day	2 days/week, 30 weeks/year
ED - Exposure Duration	1	day/event	
$EP_{(11\text{-}12)}$ - Exposure Period for age group 11-12	0.577	years	30 weeks
$EP_{(11\text{-}18)}$ - Exposure Period for age group 11-18	7	years	
$BW_{(11\text{-}12)}$ - Body Weight for age group 11-12	40.3	kg	U.S. EPA. 1997. Exposure Factors Handbook. Table 7-7
$BW_{(11\text{-}18)}$ - Body Weight for age group 11-18	50.7	kg	Ibid
$AP_{subchronic}$ - Averaging Period for subchronic noncancer	0.577	years	30 weeks
$AP_{chronic}$ - Averaging Period for chronic noncancer	7	years	
AP_{cancer} - Averaging Period for lifetime	70	years	
$SA_{(11\text{-}12)}$ - Surface Area for age group 11-12	2477	cm^2 / day	50th percentile of forearms, hands, and feet for females.
$SA_{(11\text{-}18)}$ - Surface Area for age group 11-18	2940	cm^2 / day	MADEP 1995 Guidance for Disposal Site Risk Characterization, Table B-2. Ibid
SAF - Surface Adherence Factor, Trespasser	0.14	mg/cm^2	SAF developed for ShortForm according to procedure outlined in MA DEP Technical Update: Weighted Skin-Soil Adherence Factors, April 2002.

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-2
3-15 ft Soil - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-6
Chemical-Specific Data

Vlookup Version v0315

Oil or Hazardous Material	CSF $(mg/kg\text{-}day)^{-1}$	$RAF_{c\text{-}ing}$	$RAF_{c\text{-}derm}$	Chronic RfD mg/kg-day	Subchronic RfD mg/kg-day	Chronic $RAF_{nc\text{-}ing}$	Chronic $RAF_{nc\text{-}derm}$	Subchronic $RAF_{nc\text{-}ing}$	Subchronic $RAF_{nc\text{-}derm}$
TRICHLOROETHANE, 1,1,1-				2.0E+00	7.0E+00	1	0.03	1	0.03
DICHLOROETHYLENE, CIS-1,2-				2.0E-03	2.0E-02	1	0.03	1	0.03
AROMATICS C9 to C10				3.0E-02	3.0E-01	1	0.2	1	0.2
Tetrachloroethylene	2.0E-02	1.00	0.03	6.0E-03	6.0E-03	1	0.03	1	0.03
Trichloroethylene	5.0E-02	1.00	0.03	5.0E-04	5.0E-04	1	0.03	1	0.03
Vinyl chloride	1.4E+00	1.00	0.03	3.0E-03	3.0E-03	1	0.03	1	0.03
Methylnaphthalene, 2-				4.0E-03	4.0E-03	0.3	0.1	0.3	0.1
Acenaphthene				6.0E-02	2.0E-01	0.3	0.1	0.3	0.1
BIS(2-ETHYLHEXYL)PHTHALATE	1.4E-02	1.00	0.10	2.0E-02	2.0E-02	1	0.1	1	0.1
Naphthalene				2.0E-02	2.0E-01	0.3	0.1	0.3	0.1
Phenanthrene				3.0E-02	3.0E-01	0.3	0.1	0.3	0.1
Anthracene				3.0E-01	1.0E+00	0.3	0.1	0.3	0.1
Benzo(a)anthracene	7.3E-01	0.30	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Benzo(a)pyrene	7.3E+00	0.30	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Benzo(g,h,i)perylene				3.0E-02	3.0E-01	0.3	0.1	0.3	0.1
Benzo(k)fluoranthene	7.3E-02	0.30	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
AROMATICS C11 to C22				3.0E-02	3.0E-01	0.3	0.1	0.3	0.1
ALIPHATICS C19 to C36				2.0E+00	6.0E+00	1	0.2	1	0.2
ALIPHATICS C9 to C18				1.0E-01	1.0E+00	1	0.2	1	0.2
Chrysene	7.3E-02	0.30	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
DIBENZO(a,h)ANTHRACENE	7.3E+00	0.30	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Fluoranthene				4.0E-02	1.0E-01	0.3	0.1	0.3	0.1
Fluorene				4.0E-02	4.0E-01	0.3	0.1	0.3	0.1
Pyrene				3.0E-02	3.0E-01	0.3	0.1	0.3	0.1
AROMATICS C9 to C10				3.0E-02	3.0E-01	1	0.2	1	0.2
ALIPHATICS C9 to C18				1.0E-01	1.0E+00	1	0.2	1	0.2

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-2
3-15 ft Soil - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-6
Chemical-Specific Data

Vlookup Version v0315

Oil or Hazardous Material	CSF $(mg/kg\text{-}day)^{-1}$	$RAF_{c\text{-}ing}$	$RAF_{c\text{-}derm}$	Chronic RfD mg/kg-day	Subchronic RfD mg/kg-day	Chronic $RAF_{nc\text{-}ing}$	Chronic $RAF_{nc\text{-}derm}$	Subchronic $RAF_{nc\text{-}ing}$	Subchronic $RAF_{nc\text{-}derm}$
Ethylbenzene				5.0E-02	5.0E-02	1	0.03	1	0.03
XYLENES (Mixed Isomers)				2.0E-01	4.0E-01	1	0.03	1	0.03
XYLENES (Mixed Isomers)				2.0E-01	4.0E-01	1	0.03	1	0.03
Toluene				8.0E-02	8.0E-01	1	0.03	1	0.03
Aluminum				1.0E+00	1.0E+00	1	0.1	1	0.1
Antimony				4.0E-04	4.0E-04	1	0.1	1	0.1
Arsenic	1.5E+00	0.50	0.03	3.0E-04	3.0E-04	0.5	0.03	0.5	0.03
Barium				2.0E-01	7.0E-02	1	0.1	1	0.1
Beryllium				2.0E-03	5.0E-03	1	0.1	1	0.1
CHROMIUM(III)				1.5E+00	1.5E+00	1	0.1	1	0.1
Cobalt				3.0E-04	3.0E-03	1	0.1	1	0.1
Copper				4.0E-02	1.0E-02	1	0.1	1	0.1
CHROMIUM(VI)				3.0E-03	2.0E-02	1	0.1	1	0.1
Lead				7.5E-04	7.5E-04	0.5	0.006	0.5	0.006
Manganese				1.4E-01	1.4E-01	1	0.1	1	0.1
Mercury				3.0E-04	3.0E-04	0.5	0.1	0.5	0.1
Nickel				2.0E-02	2.0E-02	1	0.2	1	0.2
Selenium				5.0E-03	5.0E-03	1	0.01	1	0.01
Silver				5.0E-03	5.0E-03	1	0.3	1	0.3
Thallium				8.0E-05	8.0E-04	1	0.01	1	0.01
Vanadium				9.0E-03	9.0E-03	1	0.1	1	0.1
Zinc				3.0E-01	3.0E-01	1	0.1	1	0.1

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-2
3-15 ft Soil - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-7
Cyanide Calculations

The soil cyanide concentration limit set to protect a trespasser against an acute, potentially lethal one-time dose of cyanide from incidental ingestion of contaminated soil is 8,000 mg/kg_{soil}. This is the concentration of available cyanide in soil below which acute human health effects would not be expected following a one-time exposure. This soil concentration is calculated using the equation below with a one-time soil ingestion estimate of 50 mg_{soil} and an available cyanide dose limit of 0.01 $mg/kg_{body\ weight}$.

MassDEP's guidance on evaluating the risk from a one-time cyanide dose considers cyanide's potentially lethal effects as well as information on cyanide metabolism:

> Cyanides are detoxified rapidly by the body, and a large acute dose which overwhelms the detoxification mechanism is potentially more toxic than the same dose distributed over a period of hours. (MassDEP *Background Documentation for the Development of an Available Cyanide Benchmark Concentration,* originally dated October 1992, Modified August 1998)

Assessment of a potential one-time dose requires an estimate of the maximum soil concentration the trespasser could contact at any one time. The average soil concentration within a typical exposure area will underestimate the potential one-time dose. Therefore, to assess the acute risk of a one-time potentially lethal dose, the EPC for cyanide should be a conservative estimate of the maximum soil concentration.

The trespasser soil concentration limit to protect against adverse effects from an acute (one-time) exposure to cyanide is 8000 mg/kg.

Concentration Calculation for Cyanide

$$\text{Concentration} = \frac{\text{HQ x Acute Dose Limit x BW}}{\text{IR x RAF x Conversion Factor}}$$

Parameter	Value	Units
HQ (Hazard Quotient)	1	(unitless)
Acute Dose Limit	0.01	mg avail. CN/ kg BW
BW (Body Weight) 11-12	40.3	kg
IR (1-time reasonable max)	50	mg
Conversion Factor	1.0E-06	kg soil / mg soil
RAF	1	(unitless)

The toxicological basis for estimating an allowable one-time dose is documented in MassDEP's 1992 *Background Documentation for the Development of an "Available Cyanide" Benchmark Concentration,* which is published at:
http://www.mass.gov/eea/docs/dep/toxics/stypes/dscyanide.pdf

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-3
Surface Water - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Table D-3
Exposure and Risk Estimates Associated With Surface Water Contact - Trespasser
Conductorlab
Groton, Massachusetts

Parameter	Definition	Units	Value	Source	Comment
IRsw	Surface Water Ingestion Rate	L/d	0.015	USEPA, 2019 MassDEP Shortform for Trespasser	upper bound estimate based on USEPA EFH Table 3-96 (USEPA, 2019)
SA	Surface Water Dermal Contact Skin Exposed	cm2	2940	exposed to soil MassDEP Shortform for Trespasser	50th percentile of forearms, hands, and feet for females.
EF	Surface Water Exposure Frequency	d/y	60	exposed to soil MassDEP Shortform for Trespasser	2 days/week, 30 weeks/yr
EP	Surface Water Exposure Period	y	7	exposed to soil	Age 11-18
ATc	Surface Water Averaging Time - Cancer	d	25550	70 years	
ATn	Surface Water Averaging Time - Non-Cancer	d	2555	7 years	
ET	Surface Water Dermal Contact Exposure Time	hr	1	assumption MassDEP Shortform for Trespasser	
BW	Body Weight	kg	50.7	exposed to soil	
CF	Conversion Factor	L/cm3	1.00E-03		

$$ADD_{ing} = \frac{C_{sw} \times IR_{sw} \times RAF_{ow} \times EF \times EP}{AT \times BW}$$

$$ADD_{der} = \frac{C_{sw} \times CF \times SA \times K_p \times ET \times RAF_{ow} \times EF \times EP}{AT \times BW}$$

$$HI_{ing} = \frac{ADD_{ing}}{RfD}$$

$$HI_{der} = \frac{ADD_{der}}{RfD}$$

$$HI = HI_{ing} + HI_{der}$$

$$Risk = ADD_{ing} \times CSF$$

$$Risk = ADD_{der} \times CSF$$

$$Risk = Risk_{ing} + Risk_{der}$$

Compound	EPC (mg/L)	RfD (mg/kg-d)	CSF 1/(mg/kg-d)	Incidental Ingestion RAFowc	ADDing-c mg/kg-d	Risking	RAFownc	ADDing-nc mg/kg-d	HIing	Dermal Contact Kp (cm/hr)	RAFdwc	ADDder-c mg/kg-d	Riskder	RAFdwnc	ADDder-nc mg/kg-d	HIder	Total Risk(SW)	HI(SW)
1,4-Dioxane	0.016	0.03	0.1	1	7.78E-08	7.78E-09	1	7.78E-07	2.59E-05	3.13E-04	1	4.78E-09	4.78E-10	1	4.78E-08	1.59E-06	8.3E-09	2.8E-05
Acetone	0.012	0.9	NA	NA	NA	NA	1	5.84E-07	6.48E-07	5.21E-04	NA	NA	NA	1	5.96E-08	6.62E-08	NA	7.1E-07
cis-1,2-Dichloroethene	0.0059	0.002	NA	NA	NA	NA	1	2.87E-07	1.43E-04	7.66E-03	NA	NA	NA	1	4.31E-07	2.15E-04	NA	3.6E-04
Tetrachloroethene	0.0016	0.006	0.02	1	7.78E-09	1.56E-10	1	7.78E-08	1.30E-05	3.27E-02	1	4.99E-08	9.97E-10	1	4.99E-07	8.31E-05	1.2E-09	9.6E-05
Trichloroethene	0.090	0.0005	0.05	1	4.38E-07	2.19E-08	1	4.38E-06	8.75E-03	1.16E-02	1	9.93E-07	4.97E-08	1	9.93E-06	1.99E-02	7.2E-08	2.9E-02
Arsenic	0.0064	0.0003	1.5	1	3.11E-08	4.67E-08	1	3.11E-07	1.04E-03	1.00E-03	1	6.10E-09	9.15E-09	1	6.10E-08	2.03E-04	5.6E-08	1.2E-03
Barium	0.028	0.2	NA	NA	NA	NA	1	1.36E-06	6.81E-06	1.00E-03	NA	NA	NA	1	2.67E-07	1.33E-06	NA	8.1E-06
Chromium	0.84	1.5	NA	NA	NA	NA	1	4.09E-05	2.72E-05	2.00E-03	NA	NA	NA	1	1.60E-05	1.07E-05	NA	3.8E-05
Copper	0.015	0.04	NA	NA	NA	NA	1	7.30E-07	1.82E-05	1.00E-03	NA	NA	NA	1	1.43E-07	3.57E-06	NA	2.2E-05
Hexavalent Chromium	0.88	0.003	NA	NA	NA	NA	1	4.28E-05	1.43E-02	2.00E-03	NA	NA	NA	1	1.68E-05	5.59E-03	NA	2.0E-02
Manganese	0.12	0.14	NA	NA	NA	NA	1	5.84E-06	4.17E-05	1.00E-03	NA	NA	NA	1	1.14E-06	8.17E-06	NA	5.0E-05
Nickel	0.0018	0.02	NA	NA	NA	NA	1	8.75E-08	4.38E-06	2.00E-04	NA	NA	NA	1	3.43E-09	1.72E-07	NA	4.5E-06
Zinc	0.0070	0.3	NA	NA	NA	NA	1	3.40E-07	1.13E-06	6.00E-04	NA	NA	NA	1	4.00E-08	1.33E-07	NA	1.3E-06
Total						7.7E-08			2.4E-02				6.0E-08			2.6E-02	1E-07	5E-02

NA - Not applicable

USEPA, 2019. Update for Chapter 3 of the Exposure Factors Handbook, Ingestion of Water and Other Select Liquids . Office of Research and Development. EPA/600/R-18/259F. February.

Prepared by: JPK 9/21/2020
Checked by: CF 10/6/2020
Revised by: CF 3/11/2022
Checked by: KALS 6/20/2022

Attachment D-4
Sediment - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Method 3 Risk Assessment for a Trespasser Exposed to Chemicals in Soil - Shortform 2012 (sf12ts)

Index

Tab		
EPCs	Table TS-1:	Select chemicals and enter Exposure Point Concentrations (EPCs). Estimated risks are shown to the right.
C Eq	Table TS-2:	Equations to calculate cancer risks
cNC Eq	Table TS-3:	Equations to calculate chronic noncancer risks
scNC Eq	Table TS-4:	Equations to calculate subchronic noncancer risks
Exp	Table TS-5:	Definitions and exposure factors
Chem	Table TS-6:	Chemical-specific data
Cyanide	Table TS-7:	Cyanide calculations

Spreadsheets designed by Andrew Friedmann, MassDEP
Questions and Comments may be addressed to:
Lydia Thompson
Massachusetts Department of Environmental Protection
Office of Research and Standards
One Winter Street
Boston, MA 02108 USA
Telephone: (617) 556-1165
Fax: (617) 556-1006
Email: Lydia.Thompson@state.ma.us

Attachment D-4
Sediment - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-1
Exposure Point Concentration (EPC)
Based on Trespasser Ages 11-18 (Cancer and Non-Cancer)

ShortForm Version 10-12 Prepared by: CF 9/18/20
Vlookup Version v0315 Checked by: JPK 9/21/20

ELCR (all chemicals) = 4E-08
Chronic HI (all chemicals) = 2E-02
Subchronic HI (all chemicals) = 6E-02

Conductorlab sediment - maximum detected concentration as EPC
****Do not insert or delete any rows****
Click on empty cell below and select OHM using arrow.

Oil or Hazardous Material	EPC (mg/kg)	$ELCR_{ingestion}$	$ELCR_{dermal}$	$ELCR_{total}$	Chronic HQ_{ing}	Chronic HQ_{derm}	Chronic HQ_{total}	Subchronic HQ_{ing}	Subchronic HQ_{derm}	Subchronic HQ_{total}
DICHLORODIPHENYLDICHLOROETHYLENE,P,P'- (DDE)	7.3E-03	4.0E-11	7.1E-11	1.1E-10	2.4E-06	4.2E-06	6.5E-06	5.2E-06	7.7E-06	1.3E-05
DICHLORODIPHENYLTRICHLOROETHANE, P,P'- (DDT)	4.3E-03	2.4E-11	4.2E-11	6.5E-11	1.4E-06	2.5E-06	3.9E-06	3.0E-06	4.5E-06	7.6E-06
Acetone	1.3E-02				2.3E-09	4.1E-09	6.5E-09	1.7E-09	2.5E-09	4.2E-09
Barium	3.9E+01				3.2E-05	1.9E-04	2.2E-04	2.0E-04	9.8E-04	1.2E-03
Benzo(A)Anthracene	1.8E-01	6.4E-10	2.5E-09	3.1E-09	2.9E-07	1.1E-06	1.4E-06	6.4E-08	2.1E-07	2.7E-07
Benzo(A)Pyrene	1.8E-01	6.4E-09	2.5E-08	3.1E-08	2.9E-07	1.1E-06	1.4E-06	6.4E-08	2.1E-07	2.7E-07
Benzo(B)Fluoranthene	2.2E-01	7.8E-10	3.1E-09	3.8E-09	3.6E-07	1.4E-06	1.8E-06	7.8E-08	2.6E-07	3.4E-07
Benzo(G,H,I)perylene	1.2E-01				1.9E-07	3.8E-06	4.0E-06	4.3E-08	7.0E-07	7.4E-07
Benzo(K)Fluoranthene	8.5E-02	3.0E-11	1.2E-10	1.5E-10	1.4E-07	5.4E-07	6.8E-07	3.0E-08	9.9E-08	1.3E-07
Beryllium	2.5E-01				2.0E-05	1.2E-04	1.4E-04	1.8E-05	8.8E-05	1.1E-04
Cadmium	1.5E-01				2.4E-05	2.9E-05	5.3E-05	5.3E-05	5.3E-05	1.1E-04
CHROMIUM(III)	9.0E+02				9.7E-05	5.7E-04	6.7E-04	2.1E-04	1.1E-03	1.3E-03
Chrysene	1.9E-01	6.7E-11	2.6E-10	3.3E-10	3.1E-07	1.2E-06	1.5E-06	6.7E-08	2.2E-07	2.9E-07
Copper	1.7E+02				6.9E-04	4.0E-03	4.7E-03	6.0E-03	3.0E-02	3.6E-02
Fluoranthene	3.8E-01				4.6E-07	9.1E-06	9.5E-06	4.0E-07	6.7E-06	7.1E-06
CHROMIUM(VI)	8.4E+00				4.5E-04	2.7E-03	3.1E-03	1.5E-04	7.4E-04	8.9E-04
Indeno(1,2,3-Cd)Pyrene	2.0E-01	7.1E-10	2.8E-09	3.5E-09	3.2E-07	1.3E-06	1.6E-06	7.1E-08	2.3E-07	3.0E-07
Lead	2.6E+01				2.8E-03	2.0E-03	4.8E-03	6.1E-03	3.7E-03	9.8E-03
Mercury	2.0E-02				5.4E-06	6.4E-05	6.9E-05	1.2E-05	1.2E-04	1.3E-04
Nickel	2.2E+01				1.8E-04	2.1E-03	2.3E-03	3.9E-04	3.9E-03	4.3E-03
Phenanthrene	1.8E-01				2.9E-07	5.7E-06	6.0E-06	6.4E-08	1.1E-06	1.1E-06
Pyrene	3.5E-01				5.7E-07	1.1E-05	1.2E-05	1.2E-07	2.0E-06	2.2E-06
TRICHLOROETHYLENE	4.2E-03	3.4E-12	6.0E-12	9.4E-12	1.4E-06	2.4E-06	3.8E-06	3.0E-06	4.4E-06	7.4E-06
Vanadium	1.7E+01				3.1E-04	1.8E-03	2.1E-03	6.7E-04	3.3E-03	4.0E-03
Zinc	6.4E+01				3.5E-05	2.0E-04	2.4E-04	7.6E-05	3.7E-04	4.5E-04

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-4
Sediment - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-2
Equations to Calculate Cancer Risk for a Trespasser (Age 11-18 years)

Vlookup Version v0315

Cancer Risk from Ingestion

$$ELCR_{ing} = LADD_{ing} * CSF$$

$$LADD_{ing} = \frac{[OHM]_{soil} * IR * RAF_{c\text{-}ing} * EF_{ing} * ED * EP * C}{BW * AP_{lifetime}}$$

Cancer Risk from Dermal Absorption

$$ELCR_{derm} = LADD_{derm} * CSF$$

$$LADD_{derm} = \frac{[OHM]_{soil} * SA * RAF_{c\text{-}derm} * SAF * EF_{derm} * ED * EP * C}{BW * AP_{lifetime}}$$

Parameter	Value	Units
CSF	OHM specific	$(mg/kg\text{-}day)^{-1}$
LADD	age/OHM specific	mg/kg-day
$[OHM]_{soil}$	OHM specific	mg/kg
IR	50	mg/day
$RAF_{c\text{-}ing}$	OHM specific	dimensionless
$RAF_{c\text{-}derm}$	OHM specific	dimensionless
$EF_{ing,derm}$	0.164	event/day
ED	1	day/event
EP	7	years
C	0.000001	kg/mg
BW	50.7	kg
$AP_{(lifetime)}$	70	years
SA	2940	cm^2 / day
SAF	1	mg/cm^2

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-4
Sediment - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-3

Equations to Calculate Chronic Noncancer Risk for a Trespasser (Age 11-18 years)

Vlookup Version v0315

Chronic Noncancer Risk from Ingestion

$$HQ_{ing} = \frac{ADD_{ing}}{RfD}$$

$$ADD_{ing} = \frac{[OHM]_{soil} * IR * RAF_{nc\text{-}ing} * EF_{ing} * ED * EP * C}{BW * AP}$$

Chronic Noncancer Risk from Dermal Absorption

$$HQ_{derm} = \frac{ADD_{ing,derm}}{RfD}$$

$$ADD_{derm} = \frac{[OHM]_{soil} * SA * RAF_{nc\text{-}derm} * SAF * EF_{derm} * ED * EP * C}{BW * AP}$$

Parameter	Value	Units
RfD	OHM specific	mg/kg-day
ADD	OHM specific	mg/kg-day
$[OHM]_{soil}$	OHM specific	mg/kg
IR	50	mg/day
$RAF_{nc\text{-}ing}$	OHM specific	dimensionless
$RAF_{nc\text{-}derm}$	OHM specific	dimensionless
$EF_{ing,derm}$	0.164	event/day
ED	1	day/event
EP	7	years
C	0.000001	kg/mg
BW	50.7	kg
AP	7	year
SA	2940	cm^2 / day
SAF	1.00	mg/cm^2

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-4
Sediment - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-4

Equations to Calculate Subchronic Noncancer Risk for a Trespasser (Age 11-12 years)

Vlookup Version v0315

Subchronic Noncancer Risk from Ingestion

$$HQ_{ing} = \frac{ADD_{ing}}{RfD_{subchronic}}$$

$$ADD_{ing} = \frac{[OHM]_{soil} * IR * RAF_{nc\text{-}ing} * EF_{ing} * ED * EP * C}{BW * AP}$$

Subchronic Noncancer Risk from Dermal Absorption

$$HQ_{derm} = \frac{ADD_{derm}}{RfD_{subchronic}}$$

$$ADD_{derm} = \frac{[OHM]_{soil} * SA * RAF_{nc\text{-}derm} * SAF * EF_{derm} * ED * EP * C}{BW * AP}$$

Parameter	Value	Units
RfD	OHM specific	mg/kg-day
ADD	OHM specific	mg/kg-day
$[OHM]_{soil}$	OHM specific	mg/kg
IR	50	mg/day
$RAF_{nc\text{-}ing}$	OHM specific	dimensionless
$RAF_{nc\text{-}derm}$	OHM specific	dimensionless
$EF_{ing,derm}$	0.286	event/day
ED	1	day/event
EP	0.577	years
C	0.000001	kg/mg
BW	40.3	kg
AP	0.577	year
SA	2477	cm^2 / day
SAF	1	mg/cm^2

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-4
Sediment - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-5
Definitions and Exposure Factors

Vlookup Version v0315

Parameter	Value	Units	Notes
ELCR - Excess Lifetime Cancer Risk	chemical specific	dimensionless	Pathway specific (ing =ingestion, derm=dermal, inh=inhalation)
CSF - Cancer Slope Factor	chemical specific	$(mg/kg\text{-}day)^{-1}$	see Table RS-7
LADD - Lifetime Average Daily Dose	chemical specific	mg/kg-day	Pathway specific
HQ - Hazard Quotient	chemical specific	dimensionless	Pathway specific (ing =ingestion, derm=dermal, inh=inhalation)
RfD - Reference Dose	chemical specific	mg/kg-day	see Table RS-7
ADD - Average Daily Dose	chemical specific	mg/kg-day	Pathway specific
EPC - Exposure Point Concentration	chemical specific	mg/kg	
IR - Soil Ingestion Rate	50	mg/day	MADEP. 2002. Technical Update: Calculation of an Enhanced Soil Ingestion Rate. (http://www.mass.gov/dep/ors/orspubs.htm)
RAF_c - Relative Absorption Factor for Cancer Effects	chemical specific	dimensionless	
$EF_{subchronic}$ - Exposure Frequency for subchronic ingestion or dermal exposure	0.286	event/day	2 days/week
$EF_{chronic}$ - Exposure Frequency for chronic ingestion or dermal exposure	0.164	event/day	2 days/week, 30 weeks/year
EF_{cancer} - Exposure Frequency for cancer, ingestion or dermal exposure	0.164	event/day	2 days/week, 30 weeks/year
ED - Exposure Duration	1	day/event	
$EP_{(11\text{-}12)}$ - Exposure Period for age group 11-12	0.577	years	30 weeks
$EP_{(11\text{-}18)}$ - Exposure Period for age group 11-18	7	years	
$BW_{(11\text{-}12)}$ - Body Weight for age group 11-12	40.3	kg	U.S. EPA. 1997. Exposure Factors Handbook. Table 7-7
$BW_{(11\text{-}18)}$ - Body Weight for age group 11-18	50.7	kg	Ibid
$AP_{subchronic}$ - Averaging Period for subchronic noncancer	0.577	years	30 weeks
$AP_{chronic}$ - Averaging Period for chronic noncancer	7	years	
AP_{cancer} - Averaging Period for lifetime	70	years	
$SA_{(11\text{-}12)}$ - Surface Area for age group 11-12	2477	cm^2 / day	50th percentile of forearms, hands, and feet for females. MADEP 1995 Guidance for Disposal Site Risk Characterization, Table B-2.
$SA_{(11\text{-}18)}$ - Surface Area for age group 11-18	2940	cm^2 / day	Ibid
SAF - Surface Adherence Factor, Trespasser, Sediment	1	mg/cm^2	SAF developed for ShortForm according to procedure outlined in MA DEP Technical Update: Weighted Skin-Soil Adherence Factors, April 2002.

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-4
Sediment - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-6
Chemical-Specific Data

Vlookup Version v0315

Oil or Hazardous Material	CSF $(mg/kg\text{-}day)^{-1}$	$RAF_{c\text{-}ing}$	$RAF_{c\text{-}derm}$	Chronic RfD mg/kg-day	Subchronic RfD mg/kg-day	Chronic $RAF_{nc\text{-}ing}$	Chronic $RAF_{nc\text{-}derm}$	Subchronic $RAF_{nc\text{-}ing}$	Subchronic $RAF_{nc\text{-}derm}$
DICHLORODIPHENYLDI	3.4E-01	1.00	0.03	5.0E-04	5.0E-04	1	0.03	1	0.03
DICHLORODIPHENYLTI	3.4E-01	1.00	0.03	5.0E-04	5.0E-04	1	0.03	1	0.03
Acetone				9.0E-01	2.7E+00	1	0.03	1	0.03
Arsenic	1.5E+00	0.50	0.03	3.0E-04	3.0E-04	0.5	0.03	0.5	0.03
Barium				2.0E-01	7.0E-02	1	0.1	1	0.1
Benzo(A)Anthracene	7.3E-01	0.30	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Benzo(A)Pyrene	7.3E+00	0.30	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Benzo(B)Fluoranthene	7.3E-01	0.30	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Benzo(G,H,I)perylene				3.0E-02	3.0E-01	0.3	0.1	0.3	0.1
Benzo(K)Fluoranthene	7.3E-02	0.30	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Beryllium				2.0E-03	5.0E-03	1	0.1	1	0.1
Cadmium				5.0E-04	5.0E-04	0.5	0.01	0.5	0.01
CHROMIUM(III)				1.5E+00	1.5E+00	1	0.1	1	0.1
Chrysene	7.3E-02	0.30	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Copper				4.0E-02	1.0E-02	1	0.1	1	0.1
Fluoranthene				4.0E-02	1.0E-01	0.3	0.1	0.3	0.1
CHROMIUM(VI)				3.0E-03	2.0E-02	1	0.1	1	0.1
Indeno(1,2,3-Cd)Pyrene	7.3E-01	0.30	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Lead				7.5E-04	7.5E-04	0.5	0.006	0.5	0.006
Mercury				3.0E-04	3.0E-04	0.5	0.1	0.5	0.1
Nickel				2.0E-02	2.0E-02	1	0.2	1	0.2
Phenanthrene				3.0E-02	3.0E-01	0.3	0.1	0.3	0.1
Pyrene				3.0E-02	3.0E-01	0.3	0.1	0.3	0.1
TRICHLOROETHYLENE	5.0E-02	1.00	0.03	5.0E-04	5.0E-04	1	0.03	1	0.03
Vanadium				9.0E-03	9.0E-03	1	0.1	1	0.1
Zinc				3.0E-01	3.0E-01	1	0.1	1	0.1

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-4
Sediment - Trespasser
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Trespasser - Soil: Table TS-7
Cyanide Calculations

The soil cyanide concentration limit set to protect a trespasser against an acute, potentially lethal one-time dose of cyanide from incidental ingestion of contaminated soil is 8,000 mg/kg_{soil}. This is the concentration of available cyanide in soil below which acute human health effects would not be expected following a one-time exposure. This soil concentration is calculated using the equation below with a one-time soil ingestion estimate of 50 mg_{soil} and an available cyanide dose limit of 0.01 $mg/kg_{body\ weight}$.

MassDEP's guidance on evaluating the risk from a one-time cyanide dose considers cyanide's potentially lethal effects as well as information on cyanide metabolism:

> Cyanides are detoxified rapidly by the body, and a large acute dose which overwhelms the detoxification mechanism is potentially more toxic than the same dose distributed over a period of hours. (MassDEP *Background Documentation for the Development of an Available Cyanide Benchmark Concentration,* originally dated October 1992, Modified August 1998)

Assessment of a potential one-time dose requires an estimate of the maximum soil concentration the trespasser could contact at any one time. The average soil concentration within a typical exposure area will underestimate the potential one-time dose. Therefore, to assess the acute risk of a one-time potentially lethal dose, the EPC for cyanide should be a conservative estimate of the maximum soil concentration.

The trespasser soil concentration limit to protect against adverse effects from an acute (one-time) exposure to cyanide is 8000 mg/kg.

Concentration Calculation for Cyanide

$$\text{Concentration} = \frac{\text{HQ x Acute Dose Limit x BW}}{\text{IR x RAF x Conversion Factor}}$$

Parameter	Value	Units
HQ (Hazard Quotient)	1	(unitless)
Acute Dose Limit	0.01	mg avail. CN/ kg BW
BW (Body Weight) 11-12	40.3	kg
IR (1-time reasonable max)	50	mg
Conversion Factor	1.0E-06	kg soil / mg soil
RAF	1	(unitless)

The toxicological basis for estimating an allowable one-time dose is documented in MassDEP's 1992 *Background Documentation for the Development of an "Available Cyanide" Benchmark Concentration,* which is published at: http://www.mass.gov/eea/docs/dep/toxics/stypes/dscyanide.pdf

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-5
Surface Water - Resident
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Table D-5
Exposure and Risk Estimates Associated With Surface Water Contact - Resident (Recreator) Age 1-8
Conductorlab
Groton, Massachusetts

Parameter	Definition	Units	Value	Source	Comment
IRsw	Surface Water Ingestion Rate	L/d	0.015	USEPA, 2019	upper bound estimate based on USEPA EFH Table 3-96 (USEPA, 2019)
SA	Surface Water Dermal Contact Skin Exposed	cm2	2431	MassDEP Shortform for Park Visitor exposed to soil	50th percentile of forearms, hands, lower legs, and feet for females.
EF	Surface Water Exposure Frequency	d/y	60	MassDEP Shortform for Park Visitor exposed to soil	assumed 2 days/week, 30 weeks/year
EP	Surface Water Exposure Period	y	7	MassDEP Shortform for Park Visitor exposed to soil	Age 1-8
ATc	Surface Water Averaging Time - Cancer	d	25550	70 years	
ATn	Surface Water Averaging Time - Non-Cancer	d	2555	7 years	
ET	Surface Water Dermal Contact Exposure Time	hr	1	assumption	
BW	Body Weight	kg	17	MassDEP Shortform for Park Visitor exposed to soil	
CF	Conversion Factor	L/cm3	1.00E-03		

$$ADD_{ing} = \frac{C_{sw} \times IR_{sw} \times RAF_{ow} \times EF \times EP}{AT \times BW}$$

$$ADD_{der} = \frac{C_{sw} \times CF \times SA \times K_P \times ET \times RAF_{ow} \times EF \times EP}{AT \times BW}$$

$$HI_{ing} = \frac{ADD_{ing}}{RfD}$$

$$HI_{der} = \frac{ADD_{der}}{RfD}$$

$$HI = HI_{ing} + HI_{der}$$

$$Risk = ADD_{ing} \times CSF$$

$$Risk = ADD_{der} \times CSF$$

$$Risk = Risk_{ing} + Risk_{der}$$

Compound	EPC (mg/L)	RfD (mg/kg-d)	CSF 1/(mg/kg-d)	Incidental Ingestion RAFowc	ADDing-c mg/kg-d	Risking	RAFownc	ADDing-nc mg/kg-d	HIing	Dermal Contact Kp (cm/hr)	RAFdwc	ADDder-c mg/kg-d	Riskder	RAFdwnc	ADDder-nc mg/kg-d	HIder	Total Risk(SW)	HI(SW)
1,4-Dioxane	0.016	0.03	0.1	1	2.32E-07	2.32E-08	1	2.32E-06	7.74E-05	3.13E-04	1	1.18E-08	1.18E-09	1	1.18E-07	3.93E-06	2.4E-08	8.1E-05
Acetone	0.012	0.9	NA	NA	NA	NA	1	1.74E-06	1.93E-06	5.21E-04	NA	NA	NA	1	1.47E-07	1.63E-07	NA	2.1E-06
cis-1,2-Dichloroethene	0.0059	0.002	NA	NA	NA	NA	1	8.56E-07	4.28E-04	7.66E-03	NA	NA	NA	1	1.06E-06	5.31E-04	NA	9.6E-04
Tetrachloroethene	0.0016	0.006	0.02	1	2.32E-08	4.64E-10	1	2.32E-07	3.87E-05	3.27E-02	1	1.23E-07	2.46E-09	1	1.23E-06	2.05E-04	2.9E-09	2.4E-04
Trichloroethene	0.090	0.0005	0.05	1	1.31E-06	6.53E-08	1	1.31E-05	2.61E-02	1.16E-02	1	2.45E-06	1.22E-07	1	2.45E-05	4.90E-02	1.9E-07	7.5E-02
Arsenic	0.0064	0.0003	1.5	1	9.28E-08	1.39E-07	1	9.28E-07	3.09E-03	1.00E-03	1	1.50E-08	2.26E-08	1	1.50E-07	5.01E-04	1.6E-07	3.6E-03
Barium	0.028	0.2	NA	NA	NA	NA	1	4.06E-06	2.03E-05	1.00E-03	NA	NA	NA	1	6.58E-07	3.29E-06	NA	2.4E-05
Chromium	0.84	1.5	NA	NA	NA	NA	1	1.22E-04	8.12E-05	2.00E-03	NA	NA	NA	1	3.95E-05	2.63E-05	NA	1.1E-04
Copper	0.015	0.04	NA	NA	NA	NA	1	2.18E-06	5.44E-05	1.00E-03	NA	NA	NA	1	3.53E-07	8.82E-06	NA	6.3E-05
Hexavalent Chromium	0.88	0.003	NA	NA	NA	NA	1	1.28E-04	4.25E-02	2.00E-03	NA	NA	NA	1	4.14E-05	1.38E-02	NA	5.6E-02
Manganese	0.12	0.14	NA	NA	NA	NA	1	1.74E-05	1.24E-04	1.00E-03	NA	NA	NA	1	2.82E-06	2.01E-05	NA	1.4E-04
Nickel	0.0018	0.02	NA	NA	NA	NA	1	2.61E-07	1.31E-05	2.00E-04	NA	NA	NA	1	8.46E-09	4.23E-07	NA	1.3E-05
Zinc	0.0070	0.3	NA	NA	NA	NA	1	1.02E-06	3.38E-06	6.00E-04	NA	NA	NA	1	9.87E-08	3.29E-07	NA	3.7E-06
Total						2.3E-07			7.3E-02				1.5E-07			6.4E-02	4E-07	1E-01

NA - Not applicable
USEPA, 2019. Update for Chapter 3 of the Exposure Factors Handbook, Ingestion of Water and Other Select Liquids . Office of Research and Development. EPA/600/R-18/259F. February.

Prepared by: JPK 9/21/2020
Checked by: CF 10/6/2020
Revised by: CF 3/11/2022
Checked by: KALS 6/20/2022

Attachment D-6
Surface Water - Resident
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Table D-6
Exposure and Risk Estimates Associated With Surface Water Contact - Resident (Recreator) Age 8-15
Conductorlab
Groton, Massachusetts

Parameter	Definition	Units	Value	Source	Comment
IRsw	Surface Water Ingestion Rate	L/d	0.015	USEPA, 2019	upper bound estimate based on USEPA EFH Table 3-96 (USEPA, 2019)
SA	Surface Water Dermal Contact Skin Exposed	cm2	4427	MassDEP Shortform for Park Visitor exposed to soil	50th percentile of forearms, hands, lower legs, and feet for females.
EF	Surface Water Exposure Frequency	d/y	60	MassDEP Shortform for Park Visitor exposed to soil	assumed 2 days/week, 30 weeks/year
EP	Surface Water Exposure Period	y	7	MassDEP Shortform for Park Visitor exposed to soil	Age 8-15
ATc	Surface Water Averaging Time - Cancer	d	25550	70 years	
ATn	Surface Water Averaging Time - Non-Cancer	d	2555	7 years	
ET	Surface Water Dermal Contact Exposure Time	hr	1	assumption	
BW	Body Weight	kg	39.9	MassDEP Shortform for Park Visitor exposed to soil	
CF	Conversion Factor	L/cm3	1.00E-03		

$$ADD_{ing} = \frac{C_{sw} \times IR_{sw} \times RAF_{ow} \times EF \times EP}{AT \times BW}$$

$$ADD_{der} = \frac{C_{sw} \times CF \times SA \times K_p \times ET \times RAF_{ow} \times EF \times EP}{AT \times BW}$$

$$HI_{ing} = \frac{ADD_{ing}}{RfD}$$

$$HI_{der} = \frac{ADD_{der}}{RfD}$$

$$HI = HI_{ing} + HI_{der}$$

$$Risk = ADD_{ing} \times CSF$$

$$Risk = ADD_{der} \times CSF$$

$$Risk = Risk_{ing} + Risk_{der}$$

Compound	EPC (mg/L)	RfD (mg/kg-d)	CSF 1/(mg/kg-d)	Incidental Ingestion RAFowc	ADDing-c mg/kg-d	Risking	RAFownc	ADDing-nc mg/kg-d	HIing	Dermal Contact Kp (cm/hr)	RAFdwc	ADDder-c mg/kg-d	Riskder	RAFdwnc	ADDder-nc mg/kg-d	HIder	Total Risk(SW)	HI(SW)
1,4-Dioxane	0.016	0.03	0.1	1	9.89E-08	9.89E-09	1	9.89E-07	3.30E-05	0.000313	1	9.14E-09	9.14E-10	1	9.14E-08	3.05E-06	1.1E-08	3.6E-05
Acetone	0.012	0.9	NA	NA	NA	NA	1	7.42E-07	8.24E-07	0.000521	NA	NA	NA	1	1.14E-07	1.27E-07	NA	9.5E-07
cis-1,2-Dichloroethene	0.0059	0.002	NA	NA	NA	NA	1	3.65E-07	1.82E-04	0.007663	NA	NA	NA	1	8.25E-07	4.12E-04	NA	5.9E-04
Tetrachloroethene	0.0016	0.006	0.02	1	9.89E-09	1.98E-10	1	9.89E-08	1.65E-05	0.032689	1	9.54E-08	1.91E-09	1	9.54E-07	1.59E-04	2.1E-09	1.8E-04
Trichloroethene	0.090	0.0005	0.05	1	5.56E-07	2.78E-08	1	5.56E-06	1.11E-02	0.011577	1	1.90E-06	9.50E-08	1	1.90E-05	3.80E-02	1.2E-07	4.9E-02
Arsenic	0.0064	0.0003	1.5	1	3.96E-08	5.93E-08	1	3.96E-07	1.32E-03	0.001	1	1.17E-08	1.75E-08	1	1.17E-07	3.89E-04	7.7E-08	1.7E-03
Barium	0.028	0.2	NA	NA	NA	NA	1	1.73E-06	8.65E-06	0.001	NA	NA	NA	1	5.11E-07	2.55E-06	NA	1.1E-05
Chromium	0.84	1.5	NA	NA	NA	NA	1	5.19E-05	3.46E-05	0.002	NA	NA	NA	1	3.06E-05	2.04E-05	NA	5.5E-05
Copper	0.015	0.04	NA	NA	NA	NA	1	9.27E-07	2.32E-05	0.001	NA	NA	NA	1	2.74E-07	6.84E-06	NA	3.0E-05
Hexavalent Chromium	0.88	0.003	NA	NA	NA	NA	1	5.44E-05	1.81E-02	0.002	NA	NA	NA	1	3.21E-05	1.07E-02	NA	2.9E-02
Manganese	0.12	0.14	NA	NA	NA	NA	1	7.42E-06	5.30E-05	0.001	NA	NA	NA	1	2.19E-06	1.56E-05	NA	6.9E-05
Nickel	0.0018	0.02	NA	NA	NA	NA	1	1.11E-07	5.56E-06	0.0002	NA	NA	NA	1	6.57E-09	3.28E-07	NA	5.9E-06
Zinc	0.0070	0.3	NA	NA	NA	NA	1	4.33E-07	1.44E-06	0.0006	NA	NA	NA	1	7.66E-08	2.55E-07	NA	1.7E-06
Total						9.7E-08			3.1E-02				1.2E-07			5.0E-02	2E-07	8E-02

NA - Not applicable

USEPA, 2019. Update for Chapter 3 of the Exposure Factors Handbook, Ingestion of Water and Other Select Liquids . Office of Research and Development. EPA/600/R-18/259F. February.

Prepared by: JPK 9/21/2020
Checked by: CF 10/6/2020
Revised by: CF 3/11/2022
Checked by: KALS 6/20/2022

Attachment D-7
Surface Water - Resident
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Table D-7
Exposure and Risk Estimates Associated With Surface Water Contact - Resident (Recreator) Age 15-31
Conductorlab
Groton, Massachusetts

Parameter	Definition	Units	Value	Source	Comment
IRsw	Surface Water Ingestion Rate	L/d	0.015	USEPA, 2019	upper bound estimate based on USEPA EFH Table 3-96 (USEPA, 2019)
SA	Surface Water Dermal Contact Skin Exposed	cm2	5653	MassDEP Shortform for Park Visitor exposed to soil	50th percentile of forearms, hands, lower legs, and feet for females.
EF	Surface Water Exposure Frequency	d/y	60	MassDEP Shortform for Park Visitor exposed to soil	assumed 2 days/week, 30 weeks/year
EP	Surface Water Exposure Period	y	16	MassDEP Shortform for Park Visitor exposed to soil	Age 15-30
ATc	Surface Water Averaging Time - Cancer	d	25550	70 years	
ATn	Surface Water Averaging Time - Non-Cancer	d	5840	16 years	
ET	Surface Water Dermal Contact Exposure Time	hr	1	assumption	
BW	Body Weight	kg	58.7	MassDEP Shortform for Park Visitor exposed to soil	
CF	Conversion Factor	L/cm3	1.00E-03		

$$ADD_{ing} = \frac{C_{sw} \times IR_{sw} \times RAF_{ow} \times EF \times EP}{AT \times BW}$$

$$ADD_{der} = \frac{C_{sw} \times CF \times SA \times K_P \times ET \times RAF_{ow} \times EF \times EP}{AT \times BW}$$

$$HI_{ing} = \frac{ADD_{ing}}{RfD}$$

$$HI_{der} = \frac{ADD_{der}}{RfD}$$

$$HI = HI_{ing} + HI_{der}$$

$$Risk = ADD_{ing} \times CSF$$

$$Risk = ADD_{der} \times CSF$$

$$Risk = Risk_{ing} + Risk_{der}$$

Compound	EPC (mg/L)	RfD (mg/kg-d)	CSF 1/(mg/kg-d)	Incidental Ingestion RAFowc	ADDing-c mg/kg-d	Risking	RAFownc	ADDing-nc mg/kg-d	HIing	Dermal Contact Kp (cm/hr)	RAFdwc	ADDder-c mg/kg-d	Riskder	RAFdwnc	ADDder-nc mg/kg-d	HIder	Total Risk(SW)	HI(SW)
1,4-Dioxane	0.016	0.03	0.1	1	1.54E-07	1.54E-08	1	6.72E-07	2.24E-05	0.000313	1	1.81E-08	1.81E-09	1	7.94E-08	2.65E-06	1.7E-08	2.5E-05
Acetone	0.012	0.9	NA	NA	NA	NA	1	5.04E-07	5.60E-07	0.000521	NA	NA	NA	1	9.90E-08	1.10E-07	NA	6.7E-07
cis-1,2-Dichloroethene	0.0059	0.002	NA	NA	NA	NA	1	2.48E-07	1.24E-04	0.007663	NA	NA	NA	1	7.16E-07	3.58E-04	NA	4.8E-04
Tetrachloroethene	0.0016	0.006	0.02	1	1.54E-08	3.07E-10	1	6.72E-08	1.12E-05	0.032689	1	1.89E-07	3.79E-09	1	8.28E-07	1.38E-04	4.1E-09	1.5E-04
Trichloroethene	0.090	0.0005	0.05	1	8.64E-07	4.32E-08	1	3.78E-06	7.56E-03	0.011577	1	3.77E-06	1.89E-07	1	1.65E-05	3.30E-02	2.3E-07	4.1E-02
Arsenic	0.0064	0.0003	1.5	1	6.14E-08	9.22E-08	1	2.69E-07	8.96E-04	0.001	1	2.32E-08	3.47E-08	1	1.01E-07	3.38E-04	1.3E-07	1.2E-03
Barium	0.028	0.2	NA	NA	NA	NA	1	1.18E-06	5.88E-06	0.001	NA	NA	NA	1	4.43E-07	2.22E-06	NA	8.1E-06
Chromium	0.84	1.5	NA	NA	NA	NA	1	3.53E-05	2.35E-05	0.002	NA	NA	NA	1	2.66E-05	1.77E-05	NA	4.1E-05
Copper	0.015	0.04	NA	NA	NA	NA	1	6.30E-07	1.58E-05	0.001	NA	NA	NA	1	2.37E-07	5.94E-06	NA	2.2E-05
Hexavalent Chromium	0.88	0.003	NA	NA	NA	NA	1	3.70E-05	1.23E-02	0.002	NA	NA	NA	1	2.79E-05	9.29E-03	NA	2.2E-02
Manganese	0.12	0.14	NA	NA	NA	NA	1	5.04E-06	3.60E-05	0.001	NA	NA	NA	1	1.90E-06	1.36E-05	NA	5.0E-05
Nickel	0.0018	0.02	NA	NA	NA	NA	1	7.56E-08	3.78E-06	0.0002	NA	NA	NA	1	5.70E-09	2.85E-07	NA	4.1E-06
Zinc	0.0070	0.3	NA	NA	NA	NA	1	2.94E-07	9.80E-07	0.0006	NA	NA	NA	1	6.65E-08	2.22E-07	NA	1.2E-06
Total						1.5E-07			2.1E-02				2.3E-07			4.3E-02	4E-07	6E-02

NA - Not applicable
USEPA, 2019. Update for Chapter 3 of the Exposure Factors Handbook, Ingestion of Water and Other Select Liquids . Office of Research and Development. EPA/600/R-18/259F. February.

Prepared by: JPK 9/21/2020
Checked by: CF 10/6/2020
Revised by: CF 3/11/2022
Checked by: KALS 6/20/2022

Attachment D-8
Sediment - Resident
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Method 3 Risk Assessment for Park Visitor Exposed to Chemicals in Soil - Shortform 2012 (sf12ps)

Index

Tab	
EPCs	Table PS-1: Select chemicals and enter Exposure Point Concentrations (EPCs). Estimated risks are presented to the right.
C Eq	Table PS-2: Equations to calculate cancer risks
cNC Eq	Table PS-3: Equations to calculate chronic noncancer risks
scNC Eq	Table PS-4: Equations to calculate subchronic noncancer risks
Exp	Table PS-5: Definitions and exposure factors
Chem	Table PS-6: Chemical-specific data
Cyanide	Table PS-7: Cyanide calculations

Spreadsheets designed by Andrew Friedmann, MassDEP
Questions and Comments may be addressed to:
Lydia Thompson
Massachusetts Department of Environmental Protection
Office of Research and Standards
One Winter Street
Boston, MA 02108 USA
Telephone: (617) 556-1165
Fax: (617) 556-1006
Email: Lydia.Thompson@state.ma.us

Attachment D-8
Sediment - Resident
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Park Visitor - Soil: Table PS-1
Exposure Point Concentration (EPC)
Based on Visitor Ages 1-31 (Cancer), 1-8 (Chronic Noncancer), and 1-2 (Subchronic Noncancer)

ShortForm Version 10-12 Prepared by: CF 9/18/20
Vlookup Version v0315 Checked by: JPK 9/21/20

ELCR (all chemicals) = 4E-07
Chronic HI (all chemicals) = 6E-02
Subchronic HI (all chemicals) = 2E-01

Conductorlab sediment - maximum detected concentration as EPC
****Do not insert or delete any rows****
Click on empty cell below and select OHM using arrow.

Oil or Hazardous Material	EPC (mg/kg)	$ELCR_{ingestion}$	$ELCR_{dermal}$	$ELCR_{total}$	Chronic HQ_{ing}	Chronic HQ_{derm}	Chronic HQ_{total}	Subchronic HQ_{ing}	Subchronic HQ_{derm}	Subchronic HQ_{total}
DICHLORODIPHENYLDICHLOROETHYLENE,P,P'- (DDE)	7.3E-03	3.7E-10	5.8E-10	9.5E-10	1.4E-05	1.0E-05	2.4E-05	3.9E-05	2.0E-05	5.9E-05
DICHLORODIPHENYLTRICHLOROETHANE, P,P'- (DDT)	4.3E-03	2.2E-10	3.4E-10	5.6E-10	8.3E-06	6.1E-06	1.4E-05	2.3E-05	1.2E-05	3.4E-05
Acetone	1.3E-02				1.4E-08	1.0E-08	2.4E-08	1.3E-08	6.4E-09	1.9E-08
Barium	3.9E+01				1.9E-04	4.6E-04	6.5E-04	1.5E-03	2.5E-03	4.0E-03
Benzo(A)Anthracene	1.8E-01	5.9E-09	2.1E-08	2.6E-08	1.7E-06	2.8E-06	4.6E-06	4.8E-07	5.4E-07	1.0E-06
Benzo(A)Pyrene	1.8E-01	5.9E-08	2.1E-07	2.6E-07	1.7E-06	2.8E-06	4.6E-06	4.8E-07	5.4E-07	1.0E-06
Benzo(B)Fluoranthene	2.2E-01	7.2E-09	2.5E-08	3.2E-08	2.1E-06	3.5E-06	5.6E-06	5.9E-07	6.5E-07	1.2E-06
Benzo(G,H,I)perylene	1.2E-01				1.2E-06	9.4E-06	1.1E-05	3.2E-07	1.8E-06	2.1E-06
Benzo(K)Fluoranthene	8.5E-02	2.8E-10	9.7E-10	1.2E-09	8.2E-07	1.3E-06	2.2E-06	2.3E-07	2.5E-07	4.8E-07
Beryllium	2.5E-01				1.2E-04	2.9E-04	4.2E-04	1.3E-04	2.2E-04	3.6E-04
Cadmium	1.5E-01				1.5E-04	7.1E-05	2.2E-04	4.0E-04	1.3E-04	5.3E-04
CHROMIUM(III)	9.0E+02				5.8E-04	1.4E-03	2.0E-03	1.6E-03	2.7E-03	4.3E-03
Chrysene	1.9E-01	6.2E-10	2.2E-09	2.8E-09	1.8E-06	3.0E-06	4.8E-06	5.1E-07	5.6E-07	1.1E-06
Copper	1.7E+02				4.1E-03	1.0E-02	1.4E-02	4.5E-02	7.6E-02	1.2E-01
Fluoranthene	3.8E-01				2.8E-06	2.2E-05	2.5E-05	3.0E-06	1.7E-05	2.0E-05
CHROMIUM(VI)	8.4E+00				2.7E-03	6.6E-03	9.3E-03	1.1E-03	1.9E-03	3.0E-03
Indeno(1,2,3-Cd)Pyrene	2.0E-01	6.6E-09	2.3E-08	2.9E-08	1.9E-06	3.1E-06	5.1E-06	5.3E-07	5.9E-07	1.1E-06
Lead	2.6E+01				1.7E-02	4.9E-03	2.2E-02	4.6E-02	9.3E-03	5.6E-02
Mercury	2.0E-02				3.2E-05	1.6E-04	1.9E-04	8.9E-05	3.0E-04	3.9E-04
Nickel	2.2E+01				1.1E-03	5.2E-03	6.3E-03	2.9E-03	9.8E-03	1.3E-02
Phenanthrene	1.8E-01				1.7E-06	1.4E-05	1.6E-05	4.8E-07	2.7E-06	3.2E-06
Pyrene	3.5E-01				3.4E-06	2.8E-05	3.1E-05	9.3E-07	5.2E-06	6.1E-06
TRICHLOROETHYLENE	4.2E-03	3.1E-11	4.9E-11	8.1E-11	8.1E-06	5.9E-06	1.4E-05	2.2E-05	1.1E-05	3.4E-05
Vanadium	1.7E+01				1.8E-03	4.5E-03	6.3E-03	5.0E-03	8.4E-03	1.3E-02
Zinc	6.4E+01				2.1E-04	5.0E-04	7.1E-04	5.7E-04	9.5E-04	1.5E-03

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Park Visitor - Soil: Table PS-2

Equations to Calculate Cancer Risk for Visitor (Age 1-31 years)

Cancer Risk from Ingestion

$$ELCR_{ing} = LADD_{ing(1\text{-}31)} * CSF$$

$$LADD_{ing\ (1\text{-}31)} = LADD_{ing\ (1\text{-}8)} + LADD_{ing\ (8\text{-}15)} + LADD_{ing\ (15\text{-}31)}$$

$$LADD_{ing\ (age\ group\ x)} = \frac{[OHM]_{soil} * IR_x * RAF_{c\text{-}ing} * EF_{ing} * ED * EP_x * C}{BW_x * AP_{lifetime}}$$

Cancer Risk from Dermal Absorption

$$ELCR_{derm} = LADD_{derm} * CSF$$

$$LADD_{derm\ (1\text{-}31)} = LADD_{derm\ (1\text{-}8)} + LADD_{derm\ (8\text{-}15)} + LADD_{derm\ (15\text{-}31)}$$

$$LADD_{derm(age\ group\ x)} = \frac{[OHM]_{soil} * SA_x * RAF_{c\text{-}derm} * SAF_x * EF_{derm} * ED * EP_x * C}{BW_x * AP_{lifetime}}$$

Vlookup Version v0315

Parameter	Value	Units
CSF	OHM specific	$(mg/kg\text{-}day)^{-1}$
LADD	age/OHM specific	mg/kg-day
$[OHM]_{soil}$	OHM specific	mg/kg
$IR_{(1\text{-}8)}$	100	mg/day
$IR_{(8\text{-}15)}$	50	mg/day
$IR_{(15\text{-}31)}$	50	mg/day
$RAF_{c\text{-}ing}$	OHM specific	dimensionless
$RAF_{c\text{-}derm}$	OHM specific	dimensionless
$EF_{ing,derm}$	0.164835165	event/day
ED	1	day/event
$EP_{(1\text{-}8)}$	7	years
$EP_{(8\text{-}15)}$	7	years
$EP_{(15\text{-}31)}$	16	years
C	0.000001	kg/mg
$BW_{(1\text{-}8)}$	17.0	kg
$BW_{(8\text{-}15)}$	39.9	kg
$BW_{(15\text{-}31)}$	58.7	kg
$AP_{(lifetime)}$	70	years
$SA_{(1\text{-}8)}$	2431	cm^2/day
$SA_{(8\text{-}15)}$	4427	cm^2/day
$SA_{(15\text{-}31)}$	5653	cm^2/day
$SAF_{(1\text{-}8)}$	1	mg/cm^2
$SAF_{(8\text{-}15)}$	1	mg/cm^2
$SAF_{(15\text{-}31)}$	1	mg/cm^2

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-8
Sediment - Resident
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Park Visitor - Soil: Table PS-3
Equations to Calculate Chronic Noncancer Risk for Visitor (Age 1-8 years)

Vlookup Version v0315

Chronic Noncancer Risk from Ingestion

$$HQ_{ing} = \frac{ADD_{ing}}{RfD}$$

$$ADD_{ing} = \frac{[OHM]_{soil} * IR * RAF_{nc\text{-}ing} * EF_{ing} * ED * EP * C}{BW * AP}$$

Chronic Noncancer Risk from Dermal Absorption

$$HQ_{derm} = \frac{ADD_{ing,derm}}{RfD}$$

$$ADD_{derm} = \frac{[OHM]_{soil} * SA * RAF_{nc\text{-}derm} * SAF * EF_{derm} * ED * EP * C}{BW * AP}$$

Parameter	Value	Units
RfD	OHM specific	mg/kg-day
ADD	OHM specific	mg/kg-day
$[OHM]_{soil}$	OHM specific	mg/kg
IR	100	mg/day
$RAF_{nc\text{-}ing}$	OHM specific	dimensionless
$RAF_{nc\text{-}derm}$	OHM specific	dimensionless
$EF_{ing,derm}$	0.164835165	event/day
ED	1	day/event
EP	7	years
C	0.000001	kg/mg
BW	17.0	kg
AP	7	year
SA	2431	cm^2/day
SAF	1	mg/cm^2

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-8
Sediment - Resident
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Park Visitor - Soil: Table PS-4
Equations to Calculate Subchronic Noncancer Risk for Visitor (Age 1-2 years)

Vlookup Version v0315

Subchronic Noncancer Risk from Ingestion

$$HQ_{ing} = \frac{ADD_{ing}}{RfD_{subchronic}}$$

$$ADD_{ing} = \frac{[OHM]_{soil} * IR * RAF_{nc\text{-}ing} * EF_{ing} * ED * EP * C}{BW * AP}$$

Subchronic Noncancer Risk from Dermal Absorption

$$HQ_{derm} = \frac{ADD_{derm}}{RfD_{subchronic}}$$

$$ADD_{derm} = \frac{[OHM]_{soil} * SA * RAF_{nc\text{-}derm} * SAF * EF_{derm} * ED * EP * C}{BW * AP}$$

Parameter	Value	Units
RfD	OHM specific	mg/kg-day
ADD	OHM specific	mg/kg-day
$[OHM]_{soil}$	OHM specific	mg/kg
IR	100	mg/day
$RAF_{nc\text{-}ing}$	OHM specific	dimensionless
$RAF_{nc\text{-}derm}$	OHM specific	dimensionless
$EF_{ing,derm}$	0.285714286	event/day
ED	1	day/event
EP	0.577	years
C	0.000001	kg/mg
BW	10.7	kg
AP	0.577	year
SA	1670	cm^2/day
SAF	1	mg/cm^2

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-8
Sediment - Resident
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Park Visitor - Soil: Table PS-5
Definitions and Exposure Factors

Vlookup Version v0315

Parameter	Value	Units	Notes
ELCR - Excess Lifetime Cancer Risk	chemical specific	dimensionless	Pathway specific (ing =ingestion, derm=dermal)
CSF - Cancer Slope Factor	chemical specific	$(mg/kg\text{-}day)^{-1}$	see Table PS-6
LADD - Lifetime Average Daily Dose	chemical specific	mg/kg-day	Pathway specific
HQ - Hazard Quotient	chemical specific	dimensionless	Pathway specific (ing =ingestion, derm=dermal)
RfD - Reference Dose	chemical specific	mg/kg-day	see Table PS-6
ADD - Average Daily Dose	chemical specific	mg/kg-day	Pathway specific
EPC - Exposure Point Concentration	chemical specific	mg/kg	
$IR_{(1-2)}$ - Soil Ingestion Rate for age group 1-2	100	mg/day	MADEP. 1995. Guidance for Disposal Site Risk Characterization. Appendix Table B-3.
$IR_{(1-8)}$ - Soil Ingestion Rate for age group 1-8	100	mg/day	Ibid
$IR_{(8-15)}$ - Soil Ingestion Rate for age group 8-15	50	mg/day	Ibid
$IR_{(15-31)}$ - Soil Ingestion Rate for age group 15-31	50	mg/day	Ibid
RAF_c - Relative Absorption Factor for Cancer Effects	chemical specific	dimensionless	Adjusts estimated dose to conform to the revelant CSF. See Table PS-6
RAF_{NC} - Relative Absorption Factor for non-Cancer Effects	chemical specific	dimensionless	Adjusts estimated dose to conform to the revelant RfD. See Table PS-6
$EF_{subchronic}$ - Exposure Frequency for subchronic exposure	0.286	event/day	2 events/week
$EF_{chronic,lifetime}$ - Exposure Frequency for chronic or lifetime exposure	0.165	event/day	2 events/week, 30 weeks/year
ED - Exposure Duration	1	day/event	
$EP_{(1-2)}$ - Exposure Period for age group 1-2	0.577	years	30 weeks
$EP_{(1-8)}$ - Exposure Period for age group 1-8	7	years	
$EP_{(8-15)}$ - Exposure Period for age group 8-15	7	years	
$EP_{(15-31)}$ - Exposure Period for age group 15-31	16	years	
$BW_{(1-2)}$ - Body Weight for age group 1-2, subchronic	10.7	kg	U.S. EPA. 1997. Exposure Factors Handbook. Table 7-7, females.
$BW_{(1-8)}$ - Body Weight for age group 1-8	17.0	kg	Ibid
$BW_{(8-15)}$ - Body Weight for age group 8-15	39.9	kg	Ibid
$BW_{(15-31)}$ - Body Weight for age group 15-31	58.7	kg	Ibid
$AP_{subchronic}$ - Averaging Period for subchronic noncancer	0.577	years	30 weeks
$AP_{chronic}$ - Averaging Period for chronic noncancer	7	years	
$AP_{lifetime}$ - Averaging Period for cancer/lifetime	70	years	
$SA_{(1-2)}$ - Surface Area for age group 1-2	1670	cm^2/day	50th percentile of face (1/3 head), forearms, hands, lower legs, and feet for females.
			MADEP 1995 Guidance for Disposal Site Risk Characterization, Appendix Table B-2.
$SA_{(1-8)}$ - Surface Area for age group 1-8	2431	cm^2 / day	Ibid
$SA_{(8-15)}$ - Surface Area for age group 8-15	4427	cm^2 / day	Ibid
$SA_{(15-31)}$ - Surface Area for age group 15-31	5653	cm^2 / day	Ibid
$SAF_{(1-2)}$ - Surface Adherence Factor for age group 1-2	1	mg_{soil} / cm^2	All SAFs developed for ShortForm according to procedure outlined in MADEP Technical
$SAF_{(1-8)}$ - Surface Adherence Factor for age group 1-8	1	mg_{soil} / cm^2	Update: Weighted Skin-Soil Adherence Factors, April 2002
$SAF_{(8-15)}$ - Surface Adherence Factor for age group 8-15	1	mg_{soil} / cm^2	
$SAF_{(15-31)}$ - Surface Adherence Factor for age group 15-31	1	mg_{soil} / cm^2	

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-8
Sediment - Resident
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Park Visitor - Soil: Table PS-6
Chemical-Specific Data

Vlookup Version v0315

Oil or Hazardous Material	CSF $(mg/kg\text{-}day)^{-1}$	$RAF_{c\text{-}ing}$	$RAF_{c\text{-}derm}$	Chronic RfD mg/kg-day	Subchronic RfD mg/kg-day	Chronic $RAF_{nc\text{-}ing}$	Chronic $RAF_{nc\text{-}derm}$	Subchronic $RAF_{nc\text{-}ing}$	Subchronic $RAF_{nc\text{-}derm}$
DICHLORODIPHENYLDI	3.4E-01	1	0.03	5.0E-04	5.0E-04	1	0.03	1	0.03
DICHLORODIPHENYLTI	3.4E-01	1	0.03	5.0E-04	5.0E-04	1	0.03	1	0.03
Acetone				9.0E-01	2.7E+00	1	0.03	1	0.03
Arsenic	1.5E+00	0.5	0.03	3.0E-04	3.0E-04	0.5	0.03	0.5	0.03
Barium				2.0E-01	7.0E-02	1	0.1	1	0.1
Benzo(A)Anthracene	7.3E-01	0.3	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Benzo(A)Pyrene	7.3E+00	0.3	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Benzo(B)Fluoranthene	7.3E-01	0.3	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Benzo(G,H,I)perylene				3.0E-02	3.0E-01	0.3	0.1	0.3	0.1
Benzo(K)Fluoranthene	7.3E-02	0.3	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Beryllium				2.0E-03	5.0E-03	1	0.1	1	0.1
Cadmium				5.0E-04	5.0E-04	0.5	0.01	0.5	0.01
CHROMIUM(III)				1.5E+00	1.5E+00	1	0.1	1	0.1
Chrysene	7.3E-02	0.3	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Copper				4.0E-02	1.0E-02	1	0.1	1	0.1
Fluoranthene				4.0E-02	1.0E-01	0.3	0.1	0.3	0.1
CHROMIUM(VI)				3.0E-03	2.0E-02	1	0.1	1	0.1
Indeno(1,2,3-Cd)Pyrene	7.3E-01	0.3	0.02	3.0E-02	3.0E-01	0.3	0.02	0.3	0.02
Lead				7.5E-04	7.5E-04	0.5	0.006	0.5	0.006
Mercury				3.0E-04	3.0E-04	0.5	0.1	0.5	0.1
Nickel				2.0E-02	2.0E-02	1	0.2	1	0.2
Phenanthrene				3.0E-02	3.0E-01	0.3	0.1	0.3	0.1
Pyrene				3.0E-02	3.0E-01	0.3	0.1	0.3	0.1
TRICHLOROETHYLENE	5.0E-02	1	0.03	5.0E-04	5.0E-04	1	0.03	1	0.03
Vanadium				9.0E-03	9.0E-03	1	0.1	1	0.1
Zinc				3.0E-01	3.0E-01	1	0.1	1	0.1

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Park Visitor - Soil: Table PS-7
Cyanide Calculations

The soil cyanide concentration limit set to protect a child park visitor against an acute, potentially lethal one-time dose of cyanide from incidental ingestion of contaminated soil is 100 mg/kg_{soil}. This is the concentration of available cyanide in soil below which acute human health effects would not be expected following a one-time exposure. This soil concentration is calculated using the equation below with a pica-type soil ingestion of 1000 mg_{soil} and an available cyanide dose limit of 0.01 $mg/kg_{body\ weight}$.

MassDEP's guidance on evaluating the risk from a one-time cyanide dose considers cyanide's potentially lethal effects as well as information on cyanide metabolism:

> Cyanides are detoxified rapidly by the body, and a large acute dose which overwhelms the detoxification mechanism is potentially more toxic than the same dose distributed over a period of hours. (MassDEP *Background Documentation for the Development of an Available Cyanide Benchmark Concentration*, originally dated October 1992, Modified August 1998)

Assessment of a potential one-time dose requires an estimate of the maximum soil concentration the receptor could contact at any one time. The average soil concentration within a typical exposure area will underestimate the potential one-time dose. Therefore, to assess the acute risk of a one-time potentially lethal dose, the EPC for cyanide should be a conservative estimate of the maximum soil concentration.

The soil concentration limit to protect park visitors against adverse effects from an acute (one-time) exposure to cyanide is 100 mg/kg.

Concentration Calculation for Cyanide

$$\text{Concentration} = \frac{\text{HQ x Acute Dose Limit x BW}}{\text{IR x RAF x Conversion Factor}}$$

Parameter	Value	Units
HQ (Hazard Quotient)	1	(unitless)
Acute Dose Limit	0.01	mg avail. CN/ kg BW
BW (Body Weight) 1-2	10.7	kg
IR (1-time reasonable max)	1000	mg
Conversion Factor	1.0E-06	kg soil / mg soil
RAF	1	(unitless)

The toxicological basis for estimating an allowable one-time dose is documented in MassDEP's 1992 *Background Documentation for the Development of an "Available Cyanide" Benchmark Concentration,* which is published at:
http://www.mass.gov/eea/docs/dep/toxics/stypes/dscyanide.pdf

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-9
0-3ft Soil - Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Receptor:	Outdoor Site Worker
Exposure Medium:	Soil
Scenario Time Frame:	Future
Depth:	0-3
Duration:	Chronic

Parameter	Definition	Value	Units
IRsoil	Soil Ingestion Rate	100	mg/d
SA	Soil Dermal Contact Skin Exposed	3473	cm2/d
SAF	Soil Dermal Contact Adherence Rate	0.12	mg/cm2
EF	Soil Exposure Frequency	250	d/y
EP	Soil Exposure Period	27	y
APc	Soil Averaging Time - Cancer	25550	d
APn	Soil Averaging Time - Non-Cancer	9855	d
BW	Body Weight	58	kg
CF	Conversion Factor	0.000001	kg/mg

$$Equation\ 1: ADD_{ing} = \frac{[OHM]_{soil} \times IR_{soil} \times RAF \times EF \times EP \times C}{AP \times BW}$$

$$Equation\ 2: ADD_{der} = \frac{[OHM]_{soil} \times SA \times SAF \times RAF \times EF \times EP \times C}{AP \times BW}$$

$$Equation\ 3: HI = \frac{ADD_{ing}}{RfD_{oral}} + \frac{ADD_{derm}}{RfD_{oral}}$$

$$Equation\ 4: ELCR = (LADD_{ing} \times CSF_{oral}) + (LADD_{derm} \times CSF_{oral})$$

Equation:		1			2			3	1			2		4
	$[OHM]_{soil}$	Incidental Ingestion - Noncancer			Dermal Contact - Noncancer			Totals	Incidental Ingestion - Cancer			Dermal Contact - Cancer		Total
Compound	Concentration in Soil 0-3 ft (mg/kg)	Chronic Oral RfD (mg/kg-d)	Chronic RAF_{nc-ing} (-)	ADD_{nc-ing} mg/kg-d	HQ_{ing} (-)	Chronic $RAF_{derm-nc}$ (-)	$ADD_{nc-derm}$ mg/kg-d	HQ_{dermal} (-)	Chronic HQ (-)	Oral CSF 1/(mg/kg-d)	$RAF_{cancer-ing}$ (-)	$LADD_{ing}$ mg/kg-d	$Risk_{ingestion}$ (-)	$RAF_{cancer-derm}$ (-)	$LADD_{derm}$ mg/kg-d	$Risk_{dermal}$ (-)	ELCR (-)
Volatile Organic Compounds																	
1,1,1-Trichloroethane	0.0090	2.0E+00	1	1.1E-08	5.3E-09	3.0E-02	1.3E-09	6.6E-10	6.0E-09	--	NC	NC	NC	NC	NC	NC	NC
cis- 1,2- Dichloroethene	0.018	2.0E-03	1	2.1E-08	1.1E-05	3.0E-02	2.6E-09	1.3E-06	1.2E-05	--	NC	NC	NC	NC	NC	NC	NC
Ethylbenzene	0.0037	5.0E-02	1	4.4E-09	8.7E-08	3.0E-02	5.5E-10	1.1E-08	9.8E-08	--	NC	NC	NC	NC	NC	NC	NC
m&p-Xylenes	0.013	2.0E-01	1	1.5E-08	7.7E-08	1.0E-01	6.4E-09	3.2E-08	1.1E-07	--	NC	NC	NC	NC	NC	NC	NC
Methylene Chloride	0.0086	6.0E-03	1	1.0E-08	1.7E-06	3.0E-02	1.3E-09	2.1E-07	1.9E-06	2.0E-03	1.0E+00	3.9E-09	7.9E-12	3.0E-02	4.9E-10	9.8E-13	8.9E-12
o-Xylenes	0.0036	2.0E-01	1	4.3E-09	2.1E-08	3.0E-02	5.3E-10	2.7E-09	2.4E-08	--	NC	NC	NC	NC	NC	NC	NC
Tetrachloroethene	0.018	6.0E-03	1	2.1E-08	3.5E-06	3.0E-02	2.6E-09	4.3E-07	3.9E-06	2.0E-02	1.0E+00	8.0E-09	1.6E-10	3.0E-02	1.0E-09	2.0E-11	1.8E-10
Toluene	0.00040	8.0E-02	1	4.7E-10	5.9E-09	3.0E-02	5.9E-11	7.4E-10	6.6E-09	--	NC	NC	NC	NC	NC	NC	NC
Trichloroethene	0.020	5.0E-04	1	2.4E-08	4.8E-05	3.0E-02	3.0E-09	6.0E-06	5.4E-05	5.0E-02	1.0E+00	9.3E-09	4.7E-10	3.0E-02	1.2E-09	5.8E-11	5.2E-10
Semi Volatile Organic Compounds																	
2-Methylnaphthalene	0.30	4.0E-03	0.3	1.1E-07	2.7E-05	1.0E-01	1.5E-07	3.7E-05	6.4E-05	--	NC	NC	NC	NC	NC	NC	NC
Acenaphthene	0.28	6.0E-02	0.3	1.0E-07	1.7E-06	1.0E-01	1.4E-07	2.3E-06	4.0E-06	--	NC	NC	NC	NC	NC	NC	NC
Anthracene	0.25	3.0E-01	0.3	8.8E-08	2.9E-07	1.0E-01	1.2E-07	4.1E-07	7.0E-07	--	NC	NC	NC	NC	NC	NC	NC
Benzo[g,h,i]perylene	0.093	3.0E-02	0.3	3.3E-08	1.1E-06	1.0E-01	4.6E-08	1.5E-06	2.6E-06	--	NC	NC	NC	NC	NC	NC	NC
Fluorene	0.26	4.0E-02	0.3	9.1E-08	2.3E-06	1.0E-01	1.3E-07	3.2E-06	5.5E-06	--	NC	NC	NC	NC	NC	NC	NC
Naphthalene	0.34	2.0E-02	0.3	1.2E-07	6.1E-06	1.0E-01	1.7E-07	8.4E-06	1.5E-05	--	NC	NC	NC	NC	NC	NC	NC
Phenanthrene	0.37	3.0E-02	0.3	1.3E-07	4.3E-06	1.0E-01	1.8E-07	6.0E-06	1.0E-05	--	NC	NC	NC	NC	NC	NC	NC
Extractable Petroleum Hydrocarbons																	
Benzo[a]anthracene	0.25	3.0E-02	0.3	8.9E-08	3.0E-06	2.0E-02	2.5E-08	8.3E-07	3.8E-06	7.3E-01	3.0E-01	3.4E-08	2.5E-08	2.0E-02	9.6E-09	7.0E-09	3.2E-08
Benzo[a]pyrene	0.22	3.0E-02	0.3	7.9E-08	2.6E-06	2.0E-02	2.2E-08	7.3E-07	3.4E-06	7.3E+00	3.0E-01	3.1E-08	2.2E-07	2.0E-02	8.5E-09	6.2E-08	2.9E-07
Benzo[k]fluoranthene	0.24	3.0E-02	0.3	8.5E-08	2.8E-06	2.0E-02	2.4E-08	7.9E-07	3.6E-06	7.3E-02	3.0E-01	3.3E-08	2.4E-09	2.0E-02	9.2E-09	6.7E-10	3.1E-09
C11-C22 Aromatics	8.6	3.0E-02	0.3	3.1E-06	1.0E-04	1.0E-01	4.3E-06	1.4E-04	2.4E-04	--	NC	NC	NC	NC	NC	NC	NC
C19-C36 Aliphatics	6.4	2.0E+00	1	7.5E-06	3.7E-06	2.0E-01	6.3E-06	3.1E-06	6.9E-06	--	NC	NC	NC	NC	NC	NC	NC
C9-C18 Aliphatics	4.2	1.0E-01	1	4.9E-06	4.9E-05	2.0E-01	4.1E-06	4.1E-05	9.0E-05	--	NC	NC	NC	NC	NC	NC	NC
Chrysene	0.26	3.0E-02	0.3	9.1E-08	3.0E-06	2.0E-02	2.5E-08	8.5E-07	3.9E-06	7.3E-02	3.0E-01	3.5E-08	2.6E-09	2.0E-02	9.8E-09	7.1E-10	3.3E-09
Fluoranthene	0.32	4.0E-02	0.3	1.1E-07	2.8E-06	1.0E-01	1.6E-07	3.9E-06	6.7E-06	--	NC	NC	NC	NC	NC	NC	NC
Pyrene	0.33	3.0E-02	0.3	1.2E-07	3.8E-06	1.0E-01	1.6E-07	5.3E-06	9.2E-06	--	NC	NC	NC	NC	NC	NC	NC

Attachment D-9
0-3ft Soil - Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Receptor:	Outdoor Site Worker
Exposure Medium:	Soil
Scenario Time Frame:	Future
Depth:	0-3
Duration:	Chronic

Parameter	Definition	Value	Units
IRsoil	Soil Ingestion Rate	100	mg/d
SA	Soil Dermal Contact Skin Exposed	3473	cm2/d
SAF	Soil Dermal Contact Adherence Rate	0.12	mg/cm2
EF	Soil Exposure Frequency	250	d/y
EP	Soil Exposure Period	27	y
APc	Soil Averaging Time - Cancer	25550	d
APn	Soil Averaging Time - Non-Cancer	9855	d
BW	Body Weight	58	kg
CF	Conversion Factor	0.000001	kg/mg

$$Equation\ 1: ADD_{ing} = \frac{[OHM]_{soil} \times IR_{soil} \times RAF \times EF \times EP \times C}{AP \times BW}$$

$$Equation\ 2: ADD_{der} = \frac{[OHM]_{soil} \times SA \times SAF \times RAF \times EF \times EP \times C}{AP \times BW}$$

$$Equation\ 3: HI = \frac{ADD_{ing}}{RfD_{oral}} + \frac{ADD_{derm}}{RfD_{oral}}$$

$$Equation\ 4: ELCR = (LADD_{ing} \times CSF_{oral}) + (LADD_{derm} \times CSF_{oral})$$

Equation:		1			2			3	1			2		4
	$[OHM]_{soil}$	Incidental Ingestion - Noncancer			Dermal Contact - Noncancer			Totals	Incidental Ingestion - Cancer			Dermal Contact - Cancer		Total
Compound	Concentration in Soil 0-3 ft (mg/kg)	Chronic Oral RfD (mg/kg-d)	Chronic $RAF_{nc\text{-}ing}$ (-)	$ADD_{nc\text{-}ing}$ mg/kg-d	HQ_{ing} (-)	Chronic $RAF_{derm\text{-}nc}$ (-)	$ADD_{nc\text{-}derm}$ mg/kg-d	HQ_{dermal} (-)	Chronic HQ (-)	Oral CSF 1/(mg/kg-d)	$RAF_{cancer\text{-}ing}$ (-)	$LADD_{ing}$ mg/kg-d	$Risk_{ingestion}$ (-)	$RAF_{cancer\text{-}derm}$ (-)	$LADD_{derm}$ mg/kg-d	$Risk_{dermal}$ (-)	ELCR (-)
Metals																	
Aluminum	16253	1.0E+00	1	1.9E-02	1.9E-02	1.0E-01	8.0E-03	8.0E-03	2.7E-02	--	NC	NC	NC	NC	NC	NC	NC
Antimony	1.4	4.0E-04	1	1.6E-06	4.1E-03	1.0E-01	6.9E-07	1.7E-03	5.8E-03	--	NC	NC	NC	NC	NC	NC	NC
Barium	67	2.0E-01	1	8.0E-05	4.0E-04	1.0E-01	3.3E-05	1.7E-04	5.6E-04	--	NC	NC	NC	NC	NC	NC	NC
Beryllium	0.37	2.0E-03	1	4.4E-07	2.2E-04	1.0E-01	1.8E-07	9.1E-05	3.1E-04	--	NC	NC	NC	NC	NC	NC	NC
Chromium	175	1.5E+00	1	2.1E-04	1.4E-04	1.0E-01	8.6E-05	5.7E-05	2.0E-04	--	NC	NC	NC	NC	NC	NC	NC
Cobalt	10	3.0E-04	1	1.2E-05	4.0E-02	1.0E-01	5.0E-06	1.7E-02	5.7E-02	--	NC	NC	NC	NC	NC	NC	NC
Copper	114	4.0E-02	1	1.3E-04	3.4E-03	1.0E-01	5.6E-05	1.4E-03	4.8E-03	--	NC	NC	NC	NC	NC	NC	NC
Hexavalent Chromium	6.6	3.0E-03	1	7.8E-06	2.6E-03	1.0E-01	3.2E-06	1.1E-03	3.7E-03	--	NC	NC	NC	NC	NC	NC	NC
Lead	55	7.5E-04	0.5	3.3E-05	4.4E-02	6.0E-03	1.6E-06	2.2E-03	4.6E-02	--	NC	NC	NC	NC	NC	NC	NC
Manganese	310	1.4E-01	1	3.7E-04	2.6E-03	1.0E-01	1.5E-04	1.1E-03	3.7E-03	--	NC	NC	NC	NC	NC	NC	NC
Mercury	0.06	3.0E-04	0.5	3.7E-08	1.2E-04	1.0E-01	3.1E-08	1.0E-04	2.3E-04	--	NC	NC	NC	NC	NC	NC	NC
Nickel	36	2.0E-02	1	4.2E-05	2.1E-03	2.0E-01	3.5E-05	1.8E-03	3.9E-03	--	NC	NC	NC	NC	NC	NC	NC
Selenium	0.73	5.0E-03	1	8.6E-07	1.7E-04	1.0E-02	3.6E-08	7.2E-06	1.8E-04	--	NC	NC	NC	NC	NC	NC	NC
Silver	1.4	5.0E-03	1	1.7E-06	3.3E-04	3.0E-01	2.1E-06	4.2E-04	7.5E-04	--	NC	NC	NC	NC	NC	NC	NC
Thallium	1.1	8.0E-05	1	1.3E-06	1.6E-02	1.0E-02	5.4E-08	6.8E-04	1.7E-02	--	NC	NC	NC	NC	NC	NC	NC
Vanadium	38	9.0E-03	1	4.5E-05	5.0E-03	1.0E-01	1.9E-05	2.1E-03	7.1E-03	--	NC	NC	NC	NC	NC	NC	NC
Zinc	59	3.0E-01	1	7.0E-05	2.3E-04	1.0E-01	2.9E-05	9.7E-05	3.3E-04	--	NC	NC	NC	NC	NC	NC	NC
Total					1.4E-01			3.8E-02					2.5E-07			7.0E-08	
								Total HI:	**1.8E-01**							**Total ELCR:**	**3.2E-07**

Notes:
ADD - Average Daily Dose (non-carcinogens).
LADD - Lifetime Average Daily Dose (carcinogens) - The equation is exactly the same as the ADD, however encompasses lifetime exposure assumptions.
HI - Hazard Index
HQ - Hazard Quotient
ELCR - Excess Lifetime Cancer Risk
CSF - Cancer Slope Factor
NA - Not available
NC - Not calculated

Prepared By: CF 10/9/2020 & 5/10/2022
Checked By: KALS 6/20/2022

Attachment D-10
0-3ft Soil - Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Receptor:	Outdoor Site Worker
Exposure Medium:	Ambient Air
Scenario Time Frame:	Future
Depth:	0-3
Duration:	Chronic

Parameter	Definition	Value	Units
VR	Outdoor Air Ventilation Rate - Particulates	1.2	m^3/hr
PM_{10}	Outdoor Air PM10 - Particulates	0.032	mg/m^3
ED	Outdoor Air Exposure Duration - Particulates	8	hr/d
EF	Outdoor Air Exposure Frequency - Particulates	250	d/y
EP	Outdoor Air Exposure Period - Particulates	27	y
ATc	Outdoor Air Averaging Time - Cancer - Particulates	25550	d
ATn	Outdoor Air Averaging Time - Non-Cancer - Particulates	9855	d
BW	Body Weight	58	kg
C1	Conversion Factor	0.000001	kg/mg

$$Equation\,1: [OHM]_{air} = [OHM]_{soil} \times PM_{10} \times C1$$

$$Equation\,2: ADD_{inh} = \frac{[OHM]_{air} \times 0.5 \times VR \times RAF_i \times EF \times ED \times EP}{AP \times BW}$$

$$Equation\,3: ADD_{inh-gi} = \frac{[OHM]_{air} \times 1.5 \times VR \times RAF_{ing} \times EF \times ED \times EP}{AP \times BW}$$

$$Equation\,4: HQ = \frac{ADD_{inh-gi}}{RfD_{oral}} + \frac{ADD_{inh}}{RfD_{inhalation}}$$

$$Equation\,5: ELCR = \left(LADD_{inh-gi} \times CSF_{oral}\right) + \left(LADD_{inh} \times CSF_{inhalation}\right)$$

Equation:		1		2			3			4		2			3		5
	$[OHM]_{soil}$	$[OHM]_{air}$	Inhalation - NonCancer			Dust Incidental Ingestion - NonCancer				Totals	Inhalation - Cancer			Dust Incidental Ingestion - Cancer				Total
Compound	Concentration in Soil 0-3 ft (mg/kg)	Fugitive Dust (mg/m^3)	Chronic Inhalation RfD (mg/kg-d)	ADD_{nc-inh} mg/kg-d	HQ_{inh} (-)	Chronic Oral RfD (mg/kg-d)	RAF_{ing-nc} (-)	$ADD_{-inh-gi}$ mg/kg-d	$HQ_{-inh-gi}$ (-)	HQ (Particulates in Outdoor Air) (-)	CSF_{inh} $(mg/kg-d)^{-1}$	$LADD_{ing}$ mg/kg-d	$Risk_{ingestion}$ (-)	CSF_{oral} $(mg/kg-d)^{-1}$	RAF_{ing-c} (-)	$LADD_{-inh-gi}$ (mg/kg-d)	$ELCR_{-inh-gi}$ (-)	ELCR (Particulates in Outdoor Air) (-)
Volatile Organic Compounds																		
1,1,1-Trichloroethane	0.0090	2.88E-10	1.4E+00	1.6E-11	1.1E-11	2.0E+00	1.0E+00	4.9E-11	2.4E-11	3.6E-11	--	NC	NC	--	NC	NC	NC	NC
cis- 1,2- Dichloroethene	0.018	5.71E-10	1.7E-03	3.2E-11	1.9E-08	2.0E-03	1.0E+00	9.7E-11	4.9E-08	6.7E-08	--	NC	NC	--	NC	NC	NC	NC
Ethylbenzene	0.0037	1.18E-10	2.9E-01	6.7E-12	2.3E-11	5.0E-02	1.0E+00	2.0E-11	4.0E-10	4.3E-10	--	NC	NC	--	NC	NC	NC	NC
m&p-Xylenes	0.013	4.16E-10	2.9E-02	2.4E-11	8.3E-10	2.0E-01	1.0E+00	7.1E-11	3.5E-10	1.2E-09	--	NC	NC	--	NC	NC	NC	NC
Methylene Chloride	0.0086	2.77E-10	1.7E-01	1.6E-11	9.1E-11	6.0E-03	1.0E+00	4.7E-11	7.8E-09	7.9E-09	3.5E-05	6.0E-12	2.1E-16	2.0E-03	1.0E+00	1.8E-11	3.6E-14	3.6E-14
o-Xylenes	0.0036	1.15E-10	2.9E-02	6.5E-12	2.3E-10	2.0E-01	1.0E+00	2.0E-11	9.8E-11	3.3E-10	--	NC	NC	--	NC	NC	NC	NC
Tetrachloroethene	0.018	5.63E-10	1.1E-02	3.2E-11	2.8E-09	6.0E-03	1.0E+00	9.6E-11	1.6E-08	1.9E-08	1.1E-02	1.2E-11	1.3E-13	2.0E-02	1.0E+00	3.7E-11	7.4E-13	8.7E-13
Toluene	0.00040	1.28E-11	1.4E+00	7.3E-13	5.1E-13	8.0E-02	1.0E+00	2.2E-12	2.7E-11	2.8E-11	--	NC	NC	--	NC	NC	NC	NC
Trichloroethene	0.020	6.55E-10	5.7E-04	3.7E-11	6.5E-08	5.0E-04	1.0E+00	1.1E-10	2.2E-07	2.9E-07	1.8E-02	1.4E-11	2.5E-13	5.0E-02	1.0E+00	4.3E-11	2.1E-12	2.4E-12
Semi Volatile Organic Compounds																		
2-Methylnaphthalene	0.30	9.66E-09	1.4E-02	5.5E-10	3.8E-08	4.0E-03	3.0E-01	4.9E-10	1.2E-07	1.6E-07	--	NC	NC	--	NC	NC	NC	NC
Acenaphthene	0.28	9.10E-09	1.4E-02	5.2E-10	3.6E-08	6.0E-02	3.0E-01	4.6E-10	7.7E-09	4.4E-08	--	NC	NC	--	NC	NC	NC	NC
Anthracene	0.25	7.98E-09	1.4E-02	4.5E-10	3.2E-08	3.0E-01	3.0E-01	4.1E-10	1.4E-09	3.3E-08	--	NC	NC	--	NC	NC	NC	NC
Benzo[g,h,i]perylene	0.093	2.98E-09	1.4E-02	1.7E-10	1.2E-08	3.0E-02	3.0E-01	1.5E-10	5.1E-09	1.7E-08	--	NC	NC	--	NC	NC	NC	NC
Fluorene	0.26	8.26E-09	1.4E-02	4.7E-10	3.3E-08	4.0E-02	3.0E-01	4.2E-10	1.1E-08	4.3E-08	--	NC	NC	--	NC	NC	NC	NC
Naphthalene	0.34	1.10E-08	8.6E-04	6.2E-10	7.3E-07	2.0E-02	3.0E-01	5.6E-10	2.8E-08	7.5E-07	--	NC	NC	--	NC	NC	NC	NC
Phenanthrene	0.37	1.18E-08	1.4E-02	6.7E-10	4.7E-08	3.0E-02	3.0E-01	6.0E-10	2.0E-08	6.7E-08	--	NC	NC	--	NC	NC	NC	NC
Extractable Petroleum Hydrocarbons																		
Benzo[a]anthracene	0.25	8.05E-09	1.4E-02	4.6E-10	3.2E-08	3.0E-02	3.0E-01	4.1E-10	1.4E-08	4.6E-08	7.3E-01	1.8E-10	1.3E-10	7.3E-01	3.0E-01	1.6E-10	1.2E-10	2.4E-10
Benzo[a]pyrene	0.22	7.16E-09	1.4E-02	4.1E-10	2.8E-08	3.0E-02	3.0E-01	3.7E-10	1.2E-08	4.1E-08	7.3E+00	1.6E-10	1.1E-09	7.3E+00	3.0E-01	1.4E-10	1.0E-09	2.2E-09
Benzo[k]fluoranthene	0.24	7.72E-09	1.4E-02	4.4E-10	3.1E-08	3.0E-02	3.0E-01	3.9E-10	1.3E-08	4.4E-08	7.3E-02	1.7E-10	1.2E-11	7.3E-02	3.0E-01	1.5E-10	1.1E-11	2.3E-11
C11-C22 Aromatics	8.6	2.77E-07	1.4E-02	1.6E-08	1.1E-06	3.0E-02	3.0E-01	1.4E-08	4.7E-07	1.6E-06	--	NC	NC	--	NC	NC	NC	NC
C19-C36 Aliphatics	6.4	2.03E-07	--	NC	NC	4.0E-02	3.0E-01	1.0E-08	2.6E-07	2.6E-07	--	NC	NC	--	NC	NC	NC	NC
C9-C18 Aliphatics	4.2	1.33E-07	5.7E-02	7.5E-09	1.3E-07	4.0E-02	3.0E-01	6.8E-09	1.7E-07	3.0E-07	--	NC	NC	--	NC	NC	NC	NC
Chrysene	0.26	8.25E-09	1.4E-02	4.7E-10	3.3E-08	3.0E-02	3.0E-01	4.2E-10	1.4E-08	4.7E-08	7.3E-02	1.8E-10	1.3E-11	7.3E-02	3.0E-01	1.6E-10	1.2E-11	2.5E-11
Fluoranthene	0.32	1.02E-08	1.4E-02	5.8E-10	4.0E-08	4.0E-02	3.0E-01	5.2E-10	1.3E-08	5.3E-08	--	NC	NC	--	NC	NC	NC	NC
Pyrene	0.33	1.04E-08	1.4E-02	5.9E-10	4.1E-08	3.0E-02	3.0E-01	5.3E-10	1.8E-08	5.9E-08	--	NC	NC	--	NC	NC	NC	NC

Attachment D-10
0-3ft Soil - Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Receptor:	Outdoor Site Worker
Exposure Medium:	Ambient Air
Scenario Time Frame:	Future
Depth:	0-3
Duration:	Chronic

Parameter	Definition	Value	Units
VR	Outdoor Air Ventilation Rate - Particulates	1.2	m^3/hr
PM_{10}	Outdoor Air PM10 - Particulates	0.032	mg/m^3
ED	Outdoor Air Exposure Duration - Particulates	8	hr/d
EF	Outdoor Air Exposure Frequency - Particulates	250	d/y
EP	Outdoor Air Exposure Period - Particulates	27	y
ATc	Outdoor Air Averaging Time - Cancer - Particulates	25550	d
ATn	Outdoor Air Averaging Time - Non-Cancer - Particulates	9855	d
BW	Body Weight	58	kg
C1	Conversion Factor	0.000001	kg/mg

$$Equation\,1: [OHM]_{air} = [OHM]_{soil} \times PM_{10} \times C1$$

$$Equation\,2: ADD_{inh} = \frac{[OHM]_{air} \times 0.5 \times VR \times RAF_i \times EF \times ED \times EP}{AP \times BW}$$

$$Equation\,3: ADD_{inh-gi} = \frac{[OHM]_{air} \times 1.5 \times VR \times RAF_{ing} \times EF \times ED \times EP}{AP \times BW}$$

$$Equation\,4: HQ = \frac{ADD_{inh-gi}}{RfD_{oral}} + \frac{ADD_{inh}}{RfD_{inhalation}}$$

$$Equation\,5: ELCR = \left(LADD_{inh-gi} \times CSF_{oral}\right) + \left(LADD_{inh} \times CSF_{inhalation}\right)$$

Equation:		1		2			3				4		2			3		5
	$[OHM]_{soil}$	$[OHM]_{air}$	Inhalation - NonCancer			Dust Incidental Ingestion - NonCancer				Totals	Inhalation - Cancer			Dust Incidental Ingestion - Cancer				Total
Compound	Concentration in Soil 0-3 ft (mg/kg)	Fugitive Dust (mg/m^3)	Chronic Inhalation RfD (mg/kg-d)	ADD_{nc-inh} mg/kg-d	HQ_{inh} (-)	Chronic Oral RfD (mg/kg-d)	RAF_{ing-nc} (-)	$ADD_{-inh-gi}$ mg/kg-d	$HQ_{-inh-gi}$ (-)	HQ (Particulates in Outdoor Air) (-)	CSF_{inh} $(mg/kg\text{-}d)^{-1}$	$LADD_{ing}$ mg/kg-d	$Risk_{ingestion}$ (-)	CSF_{oral} $(mg/kg\text{-}d)^{-1}$	RAF_{ing-c} (-)	$LADD_{-inh-gi}$ (mg/kg-d)	$ELCR_{-inh-gi}$ (-)	ELCR (Particulates in Outdoor Air) (-)
Metals																		
Aluminum	16253	5.20E-04	1.4E-03	2.9E-05	2.1E-02	1.0E+00	1.0E+00	8.8E-05	8.8E-05	2.1E-02	--	NC	NC	--	NC	NC	NC	NC
Antimony	1.4	4.47E-08	2.9E-03	2.5E-09	8.9E-07	4.0E-04	1.0E+00	7.6E-09	1.9E-05	2.0E-05	--	NC	NC	--	NC	NC	NC	NC
Barium	67	2.16E-06	1.4E-04	1.2E-07	8.6E-04	2.0E-01	1.0E+00	3.7E-07	1.8E-06	8.6E-04	--	NC	NC	--	NC	NC	NC	NC
Beryllium	0.37	1.19E-08	5.7E-06	6.7E-10	1.2E-04	2.0E-03	1.0E+00	2.0E-09	1.0E-06	1.2E-04	8.4E+00	2.6E-10	2.2E-09	--	NC	NC	NC	2.2E-09
Chromium	175	5.60E-06	2.9E-05	3.2E-07	1.1E-02	1.5E+00	1.0E+00	9.5E-07	6.4E-07	1.1E-02	--	NC	NC	--	NC	NC	NC	NC
Cobalt	10	3.28E-07	1.7E-06	1.9E-08	1.1E-02	3.0E-04	1.0E+00	5.6E-08	1.9E-04	1.1E-02	3.2E+01	7.2E-09	2.3E-07	--	NC	NC	NC	2.3E-07
Copper	114	3.63E-06	--	NC	NC	4.0E-02	1.0E+00	6.2E-07	1.5E-05	1.5E-05	--	NC	NC	--	NC	NC	NC	NC
Hexavalent Chromium	6.6	2.10E-07	2.9E-05	1.2E-08	4.2E-04	3.0E-03	1.0E+00	3.6E-08	1.2E-05	4.3E-04	4.2E+01	4.6E-09	1.9E-07	--	NC	NC	NC	1.9E-07
Lead	55	1.77E-06	2.9E-04	1.0E-07	3.5E-04	7.5E-04	5.0E-01	1.5E-07	2.0E-04	5.5E-04	--	NC	NC	--	NC	NC	NC	NC
Manganese	310	9.92E-06	1.4E-05	5.6E-07	3.9E-02	1.4E-01	1.0E+00	1.7E-06	1.2E-05	3.9E-02	--	NC	NC	--	NC	NC	NC	NC
Mercury	0.06	2.00E-09	8.6E-05	1.1E-10	1.3E-06	3.0E-04	5.0E-01	1.7E-10	5.7E-07	1.9E-06	--	NC	NC	--	NC	NC	NC	NC
Nickel	36	1.15E-06	2.9E-04	6.5E-08	2.3E-04	2.0E-02	1.0E+00	2.0E-07	9.8E-06	2.4E-04	1.7E+00	2.5E-08	4.2E-08	--	NC	NC	NC	4.2E-08
Selenium	0.73	2.34E-08	8.6E-04	1.3E-09	1.5E-06	5.0E-03	1.0E+00	4.0E-09	7.9E-07	2.3E-06	--	NC	NC	--	NC	NC	NC	NC
Silver	1.4	4.52E-08	4.0E-05	2.6E-09	6.4E-05	5.0E-03	1.0E+00	7.7E-09	1.5E-06	6.6E-05	--	NC	NC	--	NC	NC	NC	NC
Thallium	1.1	3.52E-08	4.0E-06	2.0E-09	5.0E-04	8.0E-05	1.0E+00	6.0E-09	7.5E-05	5.7E-04	--	NC	NC	--	NC	NC	NC	NC
Vanadium	38	1.23E-06	2.9E-04	7.0E-08	2.4E-04	9.0E-03	1.0E+00	2.1E-07	2.3E-05	2.7E-04	--	NC	NC	--	NC	NC	NC	NC
Zinc	59	1.89E-06	4.0E-04	1.1E-07	2.7E-04	3.0E-01	1.0E+00	3.2E-07	1.1E-06	2.7E-04	--	NC	NC	--	NC	NC	NC	NC
Total					8.5E-02				6.5E-04				4.6E-07				1.2E-09	
									Total HI:	**8.6E-02**							**Total ELCR:**	**4.7E-07**

Notes:
ADD - Average Daily Dose (non-carcinogens).
LADD - Lifetime Average Daily Dose (carcinogens) - The equation is exactly the same as the ADD, however encompasses lifetime exposure assumptions.
HI - Hazard Index
HQ - Hazard Quotient
ELCR - Excess Lifetime Cancer Risk
CSF - Cancer Slope Factor
-- - Not available
NC - Not calculated

Prepared By: CF 10/9/2020 & 5/10/2022
Checked By: KALS 6/20/2022

Attachment D-11
3-15 Soil - Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Receptor:	Outdoor Site Worker
Exposure Medium:	Soil
Scenario Time Frame:	Future
Depth:	NA
Duration:	Chronic

Parameter	Definition	Value	Units
IRsoil	Soil Ingestion Rate	100	mg/d
SA	Soil Dermal Contact Skin Exposed	3473	cm2/d
SAF	Soil Dermal Contact Adherence Rate	0.12	mg/cm2
EF	Soil Exposure Frequency	250	d/y
EP	Soil Exposure Period	27	y
APc	Soil Averaging Time - Cancer	25550	d
APn	Soil Averaging Time - Non-Cancer	9855	d
BW	Body Weight	58	kg
CF	Conversion Factor	0.000001	kg/mg

$$Equation\ 1: ADD_{ing} = \frac{[OHM]_{soil} \times IR_{soil} \times RAF \times EF \times EP \times C}{AP \times BW}$$

$$Equation\ 2: ADD_{der} = \frac{[OHM]_{soil} \times SA \times SAF \times RAF \times EF \times EP \times C}{AP \times BW}$$

$$Equation\ 3: HI = \frac{ADD_{ing}}{RfD_{oral}} + \frac{ADD_{derm}}{RfD_{oral}}$$

$$Equation\ 4: ELCR = (LADD_{ing} \times CSF_{oral}) + (LADD_{derm} \times CSF_{oral})$$

Equation:				1			2		3		1				2		4
	$[OHM]_{soil}$	Incidental Ingestion - Noncancer				Dermal Contact - Noncancer			Totals	Incidental Ingestion - Cancer				Dermal Contact - Cancer			Total
Compound	Concentration in Soil 0-15 ft (mg/kg)	Chronic Oral RfD (mg/kg-d)	Chronic $RAF_{nc\text{-}ing}$ (-)	$ADD_{nc\text{-}ing}$ mg/kg-d	HQ_{ing} (-)	Chronic $RAF_{derm\text{-}nc}$ (-)	$ADD_{nc\text{-}derm}$ mg/kg-d	HQ_{dermal} (-)	Chronic HQ (-)	Oral CSF 1/(mg/kg-d)	$RAF_{cancer\text{-}ing}$ (-)	$LADD_{ing}$ mg/kg-d	$Risk_{ingestion}$ (-)	$RAF_{cancer\text{-}derm}$ (-)	$LADD_{derm}$ mg/kg-d	$Risk_{dermal}$ (-)	ELCR (-)
Volatile Organic Compounds																	
1,1,1-Trichloroethane	5.8E-02	2	1	6.8E-08	3.4E-08	0.03	8.6E-09	4.3E-09	3.9E-08	--	NC	NC	NC	NC	NC	NC	NC
cis-1,2-Dichloroethene	8.5E-02	0.002	1	1.0E-07	5.0E-05	0.03	1.3E-08	6.3E-06	5.6E-05	--	NC	NC	NC	NC	NC	NC	NC
Isopropylbenzene	1.1E-01	0.03	1	1.3E-07	4.2E-06	0.2	1.1E-07	3.5E-06	7.8E-06	--	NC	NC	NC	NC	NC	NC	NC
Tetrachloroethene	4.2E-02	0.006	1	4.9E-08	8.2E-06	0.03	6.2E-09	1.0E-06	9.3E-06	0.02	1	NC	NC	0.03	2.4E-09	4.8E-11	4.8E-11
Trichloroethene	4.2E-01	0.0005	1	4.9E-07	9.8E-04	0.03	6.1E-08	1.2E-04	1.1E-03	0.05	1	NC	NC	0.03	2.4E-08	1.2E-09	1.2E-09
Vinyl chloride	5.4E-02	0.003	1	6.4E-08	2.1E-05	0.03	7.9E-09	2.6E-06	2.4E-05	1.4	1	NC	NC	0.03	3.1E-09	4.3E-09	4.3E-09
Semi Volatile Organic Compounds																	
2-Methylnaphthalene	2.1E-01	0.004	0.3	7.4E-08	1.9E-05	0.1	1.0E-07	2.6E-05	4.4E-05	--	NC	NC	NC	NC	NC	NC	NC
Acenaphthene	2.1E-01	0.06	0.3	7.3E-08	1.2E-06	0.1	1.0E-07	1.7E-06	2.9E-06	--	NC	NC	NC	NC	NC	NC	NC
BIS(2-ETHYLHEXYL)PHTHALATE	2.0E-01	0.02	1	2.3E-07	1.2E-05	0.1	9.7E-08	4.8E-06	1.6E-05	0.014	1	NC	NC	0.1	NC	NC	0.0E+00
Naphthalene	2.5E-01	0.02	0.3	8.7E-08	4.4E-06	0.1	1.2E-07	6.0E-06	1.0E-05	--	NC	NC	NC	NC	NC	NC	NC
Phenanthrene	3.3E-01	0.03	0.3	1.2E-07	3.9E-06	0.1	1.6E-07	5.4E-06	9.3E-06	--	NC	NC	NC	NC	NC	NC	NC
Extractable Petroleum Hydrocarbons																	
Anthracene	2.1E-01	0.3	0.3	7.3E-08	2.4E-07	0.1	1.0E-07	3.4E-07	5.8E-07	--	NC	NC	NC	NC	NC	NC	NC
Benzo[a]anthracene	2.4E-01	0.03	0.3	8.6E-08	2.9E-06	0.02	2.4E-08	8.0E-07	3.7E-06	0.73	0.3	3.3E-08	2.4E-08	0.02	9.2E-09	6.7E-09	3.1E-08
Benzo[a]pyrene	2.2E-01	0.03	0.3	7.8E-08	2.6E-06	0.02	2.2E-08	7.2E-07	3.3E-06	7.3	0.3	3.0E-08	2.2E-07	0.02	8.4E-09	6.1E-08	2.8E-07
Benzo[g,h,i]perylene	2.0E-01	0.03	0.3	7.1E-08	2.4E-06	0.1	9.9E-08	3.3E-06	5.7E-06	--	NC	NC	NC	NC	NC	NC	NC
Benzo[k]fluoranthene	2.2E-01	0.03	0.3	7.7E-08	2.6E-06	0.02	2.1E-08	7.1E-07	3.3E-06	0.073	0.3	3.0E-08	2.2E-09	0.02	8.3E-09	6.0E-10	2.8E-09
C11-C22 Aromatics	4.4E+00	0.03	0.3	1.6E-06	5.2E-05	0.1	2.2E-06	7.2E-05	1.2E-04	--	NC	NC	NC	NC	NC	NC	NC
C19-C36 Aliphatics	4.6E+00	2	1	5.5E-06	2.7E-06	0.2	4.6E-06	2.3E-06	5.0E-06	--	NC	NC	NC	NC	NC	NC	NC
C9-C18 Aliphatics	3.6E+00	0.1	1	4.3E-06	4.3E-05	0.2	3.6E-06	3.6E-05	7.8E-05	--	NC	NC	NC	NC	NC	NC	NC
Chrysene	2.4E-01	0.03	0.3	8.5E-08	2.8E-06	0.02	2.4E-08	7.9E-07	3.6E-06	0.073	0.3	3.3E-08	2.4E-09	0.02	9.1E-09	6.6E-10	3.1E-09
Dibenz(a,h)anthracene	2.0E-01	0.03	0.3	6.9E-08	2.3E-06	0.02	1.9E-08	6.4E-07	3.0E-06	7.3	0.3	2.7E-08	2.0E-07	0.02	7.4E-09	5.4E-08	2.5E-07
Fluoranthene	2.9E-01	0.04	0.3	1.0E-07	2.6E-06	0.1	1.4E-07	3.6E-06	6.1E-06	--	NC	NC	NC	NC	NC	NC	NC
Fluorene	1.9E-01	0.04	0.3	6.9E-08	1.7E-06	0.1	9.6E-08	2.4E-06	4.1E-06	--	NC	NC	NC	NC	NC	NC	NC
Pyrene	2.8E-01	0.03	0.3	9.9E-08	3.3E-06	0.1	1.4E-07	4.6E-06	7.9E-06	--	NC	NC	NC	NC	NC	NC	NC

Attachment D-11
3-15 Soil - Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Receptor:	Outdoor Site Worker
Exposure Medium:	Soil
Scenario Time Frame:	Future
Depth:	NA
Duration:	Chronic

Parameter	Definition	Value	Units
IRsoil	Soil Ingestion Rate	100	mg/d
SA	Soil Dermal Contact Skin Exposed	3473	cm2/d
SAF	Soil Dermal Contact Adherence Rate	0.12	mg/cm2
EF	Soil Exposure Frequency	250	d/y
EP	Soil Exposure Period	27	y
APc	Soil Averaging Time - Cancer	25550	d
APn	Soil Averaging Time - Non-Cancer	9855	d
BW	Body Weight	58	kg
CF	Conversion Factor	0.000001	kg/mg

$$Equation\ 1: ADD_{ing} = \frac{[OHM]_{soil} \times IR_{soil} \times RAF \times EF \times EP \times C}{AP \times BW}$$

$$Equation\ 2: ADD_{der} = \frac{[OHM]_{soil} \times SA \times SAF \times RAF \times EF \times EP \times C}{AP \times BW}$$

$$Equation\ 3: HI = \frac{ADD_{ing}}{RfD_{oral}} + \frac{ADD_{derm}}{RfD_{oral}}$$

$$Equation\ 4: ELCR = (LADD_{ing} \times CSF_{oral}) + (LADD_{derm} \times CSF_{oral})$$

Equation:				1			2		3		1			2		4
	$[OHM]_{soil}$	Incidental Ingestion - Noncancer				Dermal Contact - Noncancer			Totals	Incidental Ingestion - Cancer				Dermal Contact - Cancer			Total
Compound	Concentration in Soil 0-15 ft (mg/kg)	Chronic Oral RfD (mg/kg-d)	Chronic $RAF_{nc\text{-}ing}$ (-)	$ADD_{nc\text{-}ing}$ mg/kg-d	HQ_{ing} (-)	Chronic $RAF_{derm\text{-}nc}$ (-)	$ADD_{nc\text{-}derm}$ mg/kg-d	HQ_{dermal} (-)	Chronic HQ (-)	Oral CSF 1/(mg/kg-d)	$RAF_{cancer\text{-}ing}$ (-)	$LADD_{ing}$ mg/kg-d	$Risk_{ingestion}$ (-)	$RAF_{cancer\text{-}derm}$ (-)	$LADD_{derm}$ mg/kg-d	$Risk_{dermal}$ (-)	ELCR (-)
Volatile Petroleum Hyrocarbons																	
C9-C10 Aromatics	8.7E+01	0.03	1	1.0E-04	3.4E-03	0.2	8.6E-05	2.9E-03	6.3E-03	--	NC	NC	NC	NC	NC	NC	NC
C9-C12 Aliphatics	1.8E+02	0.1	1	2.2E-04	2.2E-03	0.2	1.8E-04	1.8E-03	4.0E-03	--	NC	NC	NC	NC	NC	NC	NC
Ethylbenzene	7.9E+01	0.05	1	9.3E-05	1.9E-03	0.03	1.2E-05	2.3E-04	2.1E-03	--	NC	NC	NC	NC	NC	NC	NC
m&p-Xylenes	3.6E+02	0.2	1	4.3E-04	2.1E-03	0.1	1.8E-04	8.9E-04	3.0E-03	--	NC	NC	NC	NC	NC	NC	NC
o-Xylene	8.8E+01	0.2	1	1.0E-04	5.2E-04	0.03	1.3E-05	6.5E-05	5.8E-04	--	NC	NC	NC	NC	NC	NC	NC
Toluene	1.2E+01	0.08	1	1.5E-05	1.8E-04	0.03	1.8E-06	2.3E-05	2.1E-04	--	NC	NC	NC	NC	NC	NC	NC
Metals																	
Aluminum	1.3E+04	1	1	1.6E-02	1.6E-02	0.1	6.5E-03	6.5E-03	2.2E-02	--	NC	NC	NC	NC	NC	NC	NC
Antimony	2.1E+00	0.0004	1	2.5E-06	6.2E-03	0.1	1.0E-06	2.6E-03	8.8E-03	--	NC	NC	NC	NC	NC	NC	NC
Barium	6.5E+01	0.2	1	7.7E-05	3.8E-04	0.1	3.2E-05	1.6E-04	5.4E-04	--	NC	NC	NC	NC	NC	NC	NC
Beryllium	3.3E-01	0.002	1	3.9E-07	2.0E-04	0.1	1.6E-07	8.2E-05	2.8E-04	--	NC	NC	NC	NC	NC	NC	NC
Chromium	4.1E+02	1.5	1	4.9E-04	3.3E-04	0.1	2.0E-04	1.4E-04	4.6E-04	--	NC	NC	NC	NC	NC	NC	NC
Cobalt	9.5E+00	0.0003	1	1.1E-05	3.7E-02	0.1	4.7E-06	1.6E-02	5.3E-02	--	NC	NC	NC	NC	NC	NC	NC
Copper	2.3E+02	0.04	1	2.7E-04	6.8E-03	0.1	1.1E-04	2.8E-03	9.7E-03	--	NC	NC	NC	NC	NC	NC	NC
Hexavalent Chromium	3.1E+01	0.003	1	3.6E-05	1.2E-02	0.1	1.5E-05	5.0E-03	1.7E-02	--	NC	NC	NC	NC	NC	NC	NC
Lead	3.5E+01	0.00075	0.5	2.1E-05	2.7E-02	0.006	1.0E-06	1.4E-03	2.9E-02	--	NC	NC	NC	NC	NC	NC	NC
Manganese	2.9E+02	0.14	1	3.5E-04	2.5E-03	0.1	1.4E-04	1.0E-03	3.5E-03	--	NC	NC	NC	NC	NC	NC	NC
Mercury	4.0E-02	0.0003	0.5	2.4E-08	7.9E-05	0.1	2.0E-08	6.6E-05	1.4E-04	--	NC	NC	NC	NC	NC	NC	NC
Nickel	3.9E+01	0.02	1	4.6E-05	2.3E-03	0.2	3.8E-05	1.9E-03	4.2E-03	--	NC	NC	NC	NC	NC	NC	NC
Selenium	6.4E-01	0.005	1	7.6E-07	1.5E-04	0.01	3.1E-08	6.3E-06	1.6E-04	--	NC	NC	NC	NC	NC	NC	NC
Silver	3.4E+00	0.005	1	4.1E-06	8.1E-04	0.3	5.1E-06	1.0E-03	1.8E-03	--	NC	NC	NC	NC	NC	NC	NC
Thallium	1.4E+00	0.00008	1	1.7E-06	2.1E-02	0.01	6.9E-08	8.6E-04	2.2E-02	--	NC	NC	NC	NC	NC	NC	NC
Vanadium	3.1E+01	0.009	1	3.6E-05	4.0E-03	0.1	1.5E-05	1.7E-03	5.7E-03	--	NC	NC	NC	NC	NC	NC	NC
Zinc	4.1E+01	0.3	1	4.8E-05	1.6E-04	0.1	2.0E-05	6.7E-05	2.3E-04	--	NC	NC	NC	NC	NC	NC	NC
Total					1.5E-01			4.7E-02					4.4E-07			1.3E-07	
								Total HI:	**2.0E-01**							**Total ELCR:**	**5.7E-07**

Notes:
ADD - Average Daily Dose (non-carcinogens).
LADD - Lifetime Average Daily Dose (carcinogens) - The equation is exactly the same as the ADD, however encompasses lifetime exposure assumptions.
HI - Hazard Index
HQ - Hazard Quotient
ELCR - Excess Lifetime Cancer Risk
CSF - Cancer Slope Factor
NA - Not available
NC - Not calculated

Prepared By: CF 10/9/2020 & 5/10/2022
Checked By: KALS 6/20/2022

Attachment D-12
3-15 Soil - Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Receptor:	Outdoor Site Worker
Medium of Origin:	Soil
Exposure Medium:	Ambient Air
Scenario Time Frame:	Future
Depth:	0-15
Duration:	Chronic

Parameter	Definition	Value	Units
VR	Outdoor Air Ventilation Rate - Particulates	1.2	m^3/hr
PM_{10}	Outdoor Air PM10 - Particulates	0.032	mg/m^3
ED	Outdoor Air Exposure Duration - Particulates	8	hr/d
EF	Outdoor Air Exposure Frequency - Particulates	250	d/y
EP	Outdoor Air Exposure Period - Particulates	27	y
ATc	Outdoor Air Averaging Time - Cancer - Particulates	25550	d
ATn	Outdoor Air Averaging Time - Non-Cancer - Particulates	9855	d
BW	Body Weight	58	kg
C1	Conversion Factor	0.000001	kg/mg

$$Equation\,1: [OHM]_{air} = [OHM]_{soil} \times PM_{10} \times C1$$

$$Equation\,2: ADD_{inh} = \frac{[OHM]_{air} \times 0.5 \times VR \times RAF_i \times EF \times ED \times EP}{AP \times BW}$$

$$Equation\,3: ADD_{inh-gi} = \frac{[OHM]_{air} \times 1.5 \times VR \times RAF_{ing} \times EF \times ED \times EP}{AP \times BW}$$

$$Equation\,4: HQ = \frac{ADD_{inh-gi}}{RfD_{oral}} + \frac{ADD_{inh}}{RfD_{inhalation}}$$

$$Equation\,5: ELCR = \left(LADD_{inh-gi} \times CSF_{oral}\right) + \left(LADD_{inh} \times CSF_{inhalation}\right)$$

Equation:		1	2			3				4	2			3				5
	$[OHM]_{soil}$	$[OHM]_{air}$	Inhalation - NonCancer			Dust Incidental Ingestion - NonCancer				Total	Inhalation - Cancer			Dust Incidental Ingestion - Cancer				Totals
Compound	Concentration of Soil 0-15 ft (mg/kg)	Fugitive Dust (mg/m^3)	Chronic Inhalation RfD (mg/kg-d)	ADD_{-inh} (mg/kg-d)	HQ_{inh} (-)	Chronic Oral RfD (mg/kg-d)	RAF_{ing-nc} (-)	$ADD_{-inh-gi}$ (mg/kg-d)	$HQ_{-inh-gi}$ (-)	HQ (Particulates in Outdoor Air) (-)	$CSF_{Inhalation}$ $(mg/kg-d)^{-1}$	$LADD_{-inh}$ (mg/kg-d)	$ELCR_{inh}$ (-)	CSF_{oral} $(mg/kg-d)^{-1}$	RAF_{ing-c} (-)	$LADD_{-inh-gi}$ (mg/kg-d)	$ELCR_{-inh-gi}$ (-)	ELCR (Particulates in Outdoor Air) (-)
Volatile Organic Compounds																		
1,1,1-Trichloroethane	5.8E-02	1.9E-09	1.4E+00	1.1E-10	7.4E-11	2	1	3.2E-10	1.6E-10	2.3E-10	--	NC	NC	--	NC	NC	NC	NC
cis-1,2-Dichloroethene	8.5E-02	2.7E-09	1.7E-03	1.5E-10	9.0E-08	0.002	1	4.6E-10	2.3E-07	3.2E-07	--	NC	NC	--	NC	NC	NC	NC
Isopropylbenzene	1.1E-01	3.5E-09	1.4E-02	2.0E-10	1.4E-08	0.03	1	5.9E-10	2.0E-08	3.3E-08	--	NC	NC	--	NC	NC	NC	NC
Tetrachloroethene	4.2E-02	1.3E-09	1.1E-02	7.6E-11	6.6E-09	0.006	1	2.3E-10	3.8E-08	4.5E-08	1.1E-02	2.9E-11	3.1E-13	0.02	1	8.8E-11	1.8E-12	2.1E-12
Trichloroethene	4.2E-01	1.3E-08	5.7E-04	7.5E-10	1.3E-06	0.0005	1	2.3E-09	4.5E-06	5.8E-06	1.8E-02	2.9E-10	5.1E-12	0.05	1	8.7E-10	4.4E-11	4.9E-11
Vinyl chloride	5.4E-02	1.7E-09	2.9E-02	9.8E-11	3.4E-09	0.003	1	2.9E-10	9.8E-08	1.0E-07	3.1E-02	3.8E-11	1.2E-12	1.4	1	1.1E-10	1.6E-10	1.6E-10
Semi Volatile Organic Compounds																		
2-Methylnaphthalene	2.1E-01	6.7E-09	1.4E-02	3.8E-10	2.7E-08	0.004	0.3	3.4E-10	8.6E-08	1.1E-07	--	NC	NC	--	NC	NC	NC	NC
Acenaphthene	2.1E-01	6.6E-09	1.4E-02	3.7E-10	2.6E-08	0.06	0.3	3.4E-10	5.6E-09	3.2E-08	--	NC	NC	--	NC	NC	NC	NC
BIS(2-ETHYLHEXYL)PHTHALATE	2.0E-01	6.3E-09	2.0E-03	3.6E-10	1.8E-07	0.02	1	1.1E-09	5.3E-08	2.3E-07	4.6E-03	1.4E-10	6.2E-13	0.014	1	4.1E-10	5.8E-12	6.4E-12
Naphthalene	2.5E-01	7.9E-09	8.6E-04	4.5E-10	5.2E-07	0.02	0.3	4.0E-10	2.0E-08	5.4E-07	--	NC	NC	--	NC	NC	NC	NC
Phenanthrene	3.3E-01	1.1E-08	1.4E-02	6.0E-10	4.2E-08	0.03	0.3	5.4E-10	1.8E-08	6.0E-08	--	NC	NC	--	NC	NC	NC	NC

Attachment D-12
3-15 Soil - Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Receptor:	Outdoor Site Worker
Medium of Origin:	Soil
Exposure Medium:	Ambient Air
Scenario Time Frame:	Future
Depth:	0-15
Duration:	Chronic

Parameter	Definition	Value	Units
VR	Outdoor Air Ventilation Rate - Particulates	1.2	m^3/hr
PM_{10}	Outdoor Air PM10 - Particulates	0.032	mg/m^3
ED	Outdoor Air Exposure Duration - Particulates	8	hr/d
EF	Outdoor Air Exposure Frequency - Particulates	250	d/y
EP	Outdoor Air Exposure Period - Particulates	27	y
ATc	Outdoor Air Averaging Time - Cancer - Particulates	25550	d
ATn	Outdoor Air Averaging Time - Non-Cancer - Particulates	9855	d
BW	Body Weight	58	kg
C1	Conversion Factor	0.000001	kg/mg

$$Equation\,1: [OHM]_{air} = [OHM]_{soil} \times PM_{10} \times C1$$

$$Equation\,2: ADD_{inh} = \frac{[OHM]_{air} \times 0.5 \times VR \times RAF_i \times EF \times ED \times EP}{AP \times BW}$$

$$Equation\,3: ADD_{inh-gi} = \frac{[OHM]_{air} \times 1.5 \times VR \times RAF_{ing} \times EF \times ED \times EP}{AP \times BW}$$

$$Equation\,4: HQ = \frac{ADD_{inh-gi}}{RfD_{oral}} + \frac{ADD_{inh}}{RfD_{inhalation}}$$

$$Equation\,5: ELCR = \left(LADD_{inh-gi} \times CSF_{oral}\right) + \left(LADD_{inh} \times CSF_{inhalation}\right)$$

Equation:		1		2			3			4		2			3		5
	$[OHM]_{soil}$	$[OHM]_{air}$	Inhalation - NonCancer			Dust Incidental Ingestion - NonCancer				Total	Inhalation - Cancer			Dust Incidental Ingestion - Cancer				Totals
Compound	Concentration of Soil 0-15 ft (mg/kg)	Fugitive Dust (mg/m^3)	Chronic Inhalation RfD (mg/kg-d)	ADD_{-inh} (mg/kg-d)	HQ_{inh} (-)	Chronic Oral RfD (mg/kg-d)	RAF_{ing-nc} (-)	$ADD_{-inh-gi}$ (mg/kg-d)	$HQ_{-inh-gi}$ (-)	HQ (Particulates in Outdoor Air) (-)	$CSF_{Inhalation}$ $(mg/kg-d)^{-1}$	$LADD_{-inh}$ (mg/kg-d)	$ELCR_{inh}$ (-)	CSF_{oral} $(mg/kg-d)^{-1}$	RAF_{ing-c} (-)	$LADD_{-inh-gi}$ (mg/kg-d)	$ELCR_{-inh-gi}$ (-)	ELCR (Particulates in Outdoor Air) (-)
Extractable Petroleum Hydrocarbons																		
Anthracene	2.1E-01	6.6E-09	1.4E-02	3.7E-10	2.6E-08	0.3	0.3	3.3E-10	1.1E-09	2.7E-08	--	NC	NC	--	NC	NC	NC	NC
Benzo[a]anthracene	2.4E-01	7.8E-09	1.4E-02	4.4E-10	3.1E-08	0.03	0.3	4.0E-10	1.3E-08	4.4E-08	7.3E-01	1.7E-10	1.2E-10	0.73	0	1.5E-10	1.1E-10	2.4E-10
Benzo[a]pyrene	2.2E-01	7.1E-09	1.4E-02	4.0E-10	2.8E-08	0.03	0.3	3.6E-10	1.2E-08	4.0E-08	7.3E+00	1.5E-10	1.1E-09	7.3	0.30	1.4E-10	1.0E-09	2.1E-09
Benzo[g,h,i]perylene	2.0E-01	6.4E-09	1.4E-02	3.6E-10	2.5E-08	0.03	0.3	3.3E-10	1.1E-08	3.6E-08	--	NC	NC	--	NC	NC	NC	NC
Benzo[k]fluoranthene	2.2E-01	7.0E-09	1.4E-02	3.9E-10	2.8E-08	0.03	0.3	3.6E-10	1.2E-08	3.9E-08	7.3E-02	1.5E-10	1.1E-11	0.073	0.30	1.4E-10	1.0E-11	2.1E-11
C11-C22 Aromatics	4.4E+00	1.4E-07	1.4E-02	8.0E-09	5.6E-07	0.03	0.3	7.2E-09	2.4E-07	8.0E-07	--	NC	NC	--	NC	NC	NC	NC
C19-C36 Aliphatics	4.6E+00	1.5E-07	--	NC	NC	2	1	2.5E-08	1.3E-08	1.3E-08	--	NC	NC	--	NC	NC	NC	NC
C9-C18 Aliphatics	3.6E+00	1.2E-07	5.7E-02	6.6E-09	1.2E-07	0.1	1	2.0E-08	2.0E-07	3.1E-07	--	NC	NC	--	NC	NC	NC	NC
Chrysene	2.4E-01	7.7E-09	1.4E-02	4.4E-10	3.0E-08	0.03	0.3	3.9E-10	1.3E-08	4.4E-08	7.3E-02	1.7E-10	1.2E-11	0.073	0.30	1.5E-10	1.1E-11	2.3E-11
Dibenz(a,h)anthracene	2.0E-01	6.3E-09	1.4E-02	3.6E-10	2.5E-08	0.03	0.3	3.2E-10	1.1E-08	3.6E-08	7.3E+00	1.4E-10	1.0E-09	7.3	0.30	1.2E-10	9.0E-10	1.9E-09
Fluoranthene	2.9E-01	9.2E-09	1.4E-02	5.2E-10	3.7E-08	0.04	0.3	4.7E-10	1.2E-08	4.8E-08	--	NC	NC	--	NC	NC	NC	NC
Fluorene	1.9E-01	6.2E-09	1.4E-02	3.5E-10	2.5E-08	0.04	0.3	3.2E-10	7.9E-09	3.3E-08	--	NC	NC	--	NC	NC	NC	NC
Pyrene	2.8E-01	8.9E-09	1.4E-02	5.1E-10	3.5E-08	0.03	0.3	4.6E-10	1.5E-08	5.1E-08	--	NC	NC	--	NC	NC	NC	NC
Volatile Petroleum Hyrocarbons																		
C9-C10 Aromatics	8.7E+01	2.8E-06	1.4E-02	1.6E-07	1.1E-05	0.03	1	4.7E-07	1.6E-05	2.7E-05	--	NC	NC	--	NC	NC	NC	NC
C9-C12 Aliphatics	1.8E+02	5.9E-06	5.7E-02	3.3E-07	5.8E-06	0.1	1	1.0E-06	1.0E-05	1.6E-05	--	NC	NC	--	NC	NC	NC	NC
Ethylbenzene	7.9E+01	2.5E-06	2.9E-01	1.4E-07	5.0E-07	0.05	1	4.3E-07	8.6E-06	9.1E-06	--	NC	NC	--	NC	NC	NC	NC
m&p-Xylenes	3.6E+02	1.2E-05	2.9E-02	6.6E-07	2.3E-05	0.2	1	2.0E-06	9.8E-06	3.3E-05	--	NC	NC	--	NC	NC	NC	NC
o-Xylene	8.8E+01	2.8E-06	2.9E-02	1.6E-07	5.6E-06	0.2	1	4.8E-07	2.4E-06	8.0E-06	--	NC	NC	--	NC	NC	NC	NC
Toluene	1.2E+01	4.0E-07	1.4E+00	2.3E-08	1.6E-08	0.08	1	6.8E-08	8.5E-07	8.7E-07	--	NC	NC	--	NC	NC	NC	NC

Attachment D-12
3-15 Soil - Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Receptor:	Outdoor Site Worker
Medium of Origin:	Soil
Exposure Medium:	Ambient Air
Scenario Time Frame:	Future
Depth:	0-15
Duration:	Chronic

Parameter	Definition	Value	Units
VR	Outdoor Air Ventilation Rate - Particulates	1.2	m^3/hr
PM_{10}	Outdoor Air PM10 - Particulates	0.032	mg/m^3
ED	Outdoor Air Exposure Duration - Particulates	8	hr/d
EF	Outdoor Air Exposure Frequency - Particulates	250	d/y
EP	Outdoor Air Exposure Period - Particulates	27	y
ATc	Outdoor Air Averaging Time - Cancer - Particulates	25550	d
ATn	Outdoor Air Averaging Time - Non-Cancer - Particulates	9855	d
BW	Body Weight	58	kg
C1	Conversion Factor	0.000001	kg/mg

$$Equation\,1: [OHM]_{air} = [OHM]_{soil} \times PM_{10} \times C1$$

$$Equation\,2: ADD_{inh} = \frac{[OHM]_{air} \times 0.5 \times VR \times RAF_{i} \times EF \times ED \times EP}{AP \times BW}$$

$$Equation\,3: ADD_{inh-gi} = \frac{[OHM]_{air} \times 1.5 \times VR \times RAF_{ing} \times EF \times ED \times EP}{AP \times BW}$$

$$Equation\,4: HQ = \frac{ADD_{inh-gi}}{RfD_{oral}} + \frac{ADD_{inh}}{RfD_{inhalation}}$$

$$Equation\,5: ELCR = \left(LADD_{inh-gi} \times CSF_{oral}\right) + \left(LADD_{inh} \times CSF_{inhalation}\right)$$

Equation:		1	2			3				4	2			3				5
			Inhalation - NonCancer			Dust Incidental Ingestion - NonCancer				Total	Inhalation - Cancer			Dust Incidental Ingestion - Cancer				Totals
Compound	$[OHM]_{soil}$ Concentration of Soil 0-15 ft (mg/kg)	$[OHM]_{air}$ Fugitive Dust (mg/m^3)	Chronic Inhalation RfD (mg/kg-d)	ADD_{-inh} (mg/kg-d)	HQ_{inh} (-)	Chronic Oral RfD (mg/kg-d)	RAF_{ing-nc} (-)	$ADD_{-inh-gi}$ (mg/kg-d)	$HQ_{-inh-gi}$ (-)	HQ (Particulates in Outdoor Air) (-)	$CSF_{Inhalation}$ $(mg/kg\text{-}d)^{-1}$	$LADD_{-inh}$ (mg/kg-d)	$ELCR_{inh}$ (-)	CSF_{oral} $(mg/kg\text{-}d)^{-1}$	RAF_{ing-c} (-)	$LADD_{-inh-gi}$ (mg/kg-d)	$ELCR_{-inh-gi}$ (-)	ELCR (Particulates in Outdoor Air) (-)
Metals																		
Aluminum	1.3E+04	4.2E-04	1.4E-03	2.4E-05	1.7E-02	1	1	7.2E-05	7.2E-05	1.7E-02	--	NC	NC	--	NC	NC	NC	NC
Antimony	2.1E+00	6.7E-08	2.9E-03	3.8E-09	1.3E-06	0.0004	1	1.1E-08	2.9E-05	3.0E-05	--	NC	NC	--	NC	NC	NC	NC
Barium	6.5E+01	2.1E-06	1.4E-04	1.2E-07	8.2E-04	0.2	1	3.5E-07	1.8E-06	8.3E-04	--	NC	NC	--	NC	NC	NC	NC
Beryllium	3.3E-01	1.1E-08	5.7E-06	6.0E-10	1.1E-04	0.002	1	1.8E-09	9.1E-07	1.1E-04	8.4E+00	2.3E-10	2.0E-09	--	NC	NC	NC	2.0E-09
Chromium	4.1E+02	1.3E-05	2.9E-05	7.5E-07	2.6E-02	1.5	1	2.3E-06	1.5E-06	2.6E-02	--	NC	NC	--	NC	NC	NC	NC
Cobalt	9.5E+00	3.0E-07	1.7E-06	1.7E-08	1.0E-02	0.0003	1	5.2E-08	1.7E-04	1.0E-02	3.2E+01	6.7E-09	2.1E-07	--	NC	NC	NC	2.1E-07
Copper	2.3E+02	7.4E-06	--	NC	NC	0.04	1	1.3E-06	3.1E-05	3.1E-05	--	NC	NC	--	NC	NC	NC	NC
Hexavalent Chromium	3.1E+01	9.8E-07	2.9E-05	5.6E-08	1.9E-03	0.003	1	1.7E-07	5.6E-05	2.0E-03	4.2E+01	2.1E-08	9.0E-07	--	NC	NC	NC	9.0E-07
Lead	3.5E+01	1.1E-06	2.9E-04	6.3E-08	2.2E-04	0.00075	0.5	9.5E-08	1.3E-04	3.5E-04	--	NC	NC	--	NC	NC	NC	NC
Manganese	2.9E+02	9.4E-06	1.4E-05	5.3E-07	3.7E-02	0.14	1	1.6E-06	1.1E-05	3.7E-02	--	NC	NC	--	NC	NC	NC	NC
Mercury	4.0E-02	1.3E-09	8.6E-05	7.3E-11	8.5E-07	0.0003	0.5	1.1E-10	3.6E-07	1.2E-06	--	NC	NC	--	NC	NC	NC	NC
Nickel	3.9E+01	1.2E-06	2.9E-04	7.1E-08	2.5E-04	0.02	1	2.1E-07	1.1E-05	2.6E-04	1.7E+00	2.7E-08	4.6E-08	--	NC	NC	NC	4.6E-08
Selenium	6.4E-01	2.0E-08	8.6E-04	1.2E-09	1.4E-06	0.005	1	3.5E-09	7.0E-07	2.1E-06	--	NC	NC	--	NC	NC	NC	NC
Silver	3.4E+00	1.1E-07	4.0E-05	6.2E-09	1.6E-04	0.005	1	1.9E-08	3.7E-06	1.6E-04	--	NC	NC	--	NC	NC	NC	NC
Thallium	1.4E+00	4.5E-08	4.0E-06	2.5E-09	6.3E-04	0.00008	1	7.6E-09	9.5E-05	7.3E-04	--	NC	NC	--	NC	NC	NC	NC
Vanadium	3.1E+01	9.8E-07	2.9E-04	5.5E-08	1.9E-04	0.009	1	1.7E-07	1.8E-05	2.1E-04	--	NC	NC	--	NC	NC	NC	NC
Zinc	4.1E+01	1.3E-06	4.0E-04	7.4E-08	1.9E-04	0.3	1	2.2E-07	7.4E-07	1.9E-04	--	NC	NC	--	NC	NC	NC	NC
Total:					9.5E-02				6.9E-04				1.2E-06				2.3E-09	
									Total HI:	**9.6E-02**							**Total ELCR:**	**1.2E-06**

Notes:
ADD - Average Daily Dose (non-carcinogens).
LADD - Lifetime Average Daily Dose (carcinogens) - The equation is exactly the same as the ADD, however encompasses lifetime exposure assumptions.
HI - Hazard Index
HQ - Hazard Quotient
ELCR - Excess Lifetime Cancer Risk
CSF - Cancer Slope Factor
NA - Not available
NC - Not calculated
Note: Inhalation RAF for cancer and noncancer is assumed to be 1.
Massachusetts uses an additional fraction adjustment factor of 0.5 for inhalation and 1.5 for ingestion of particulates, these have not been defined in the equations above but have been included.

Prepared By: CF 10/9/2020 & 5/10/2022
Checked By: KALS 6/20/2022

Attachment D-13
0-15 Soil - Construction Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Method 3 Risk Assessment for Chemicals in Soil - Construction Worker Shortform 2012 (sf12cw)

Index

Tab	
EPCs	Table CW-1: Select chemicals and enter Exposure Point Concentrations (EPCs). Estimated risks are shown to the right.
C Eq	Table CW-2: Equations to calculate cancer risks
NC Eq	Table CW-3: Equations to calculate noncancer risks
Exp	Table CW-4: Definitions and exposure factors
Chem	Table CW-5: Chemical-specific data
Cyanide	Table CW-6: Cyanide Calculations

Spreadsheets designed by Andrew Friedmann, MassDEP
Questions and Comments may be addressed to:
Lydia Thompson
Massachusetts Department of Environmental Protection
Office of Research and Standards
One Winter Street
Boston, MA 02108 USA
Telephone: (617) 556-1165
Fax: (617) 556-1006
Email: Lydia.Thompson@state.ma.us

Attachment D-13
0-15 Soil - Construction Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Construction Worker - Soil: Table CW-1
Exposure Point Concentration (EPC) and Risk
Based on Construction Worker 18-25 years of age

ShortForm Version 10-12 | Prepared by: CF 9/29/2020 & 5/10/202
Vlookup Version v0315 | Checked by: KALS 6/20/2022

ELCR (all chemicals) = 1.2E-07
HI (all chemicals) = 5.9E-01

****Do not insert or delete any rows****
Click on empty cell below and select OHM using arrow.

Oil or Hazardous Material (OHM)	COC Name	EPC (mg/kg)	ELCR ingestion	ELCR dermal	ELCR inhalation GI	ELCR inhalation pulmonary	$ELCR_{total}$	Subchronic HQ_{ing}	Subchronic HQ_{derm}	Subchronic HQ_{inh-GI}	Subchronic HQ_{inh}	HQ_{total}
TRICHLOROETHANE, 1,1,1-	1,1,1-Trichloroethane	4.89E-02						8.6E-09	2.6E-09	2.2E-10	3.6E-10	1.2E-08
DICHLOROETHYLENE, CIS-1,2-	cis-1,2-Dichloroethene	6.98E-02						4.3E-06	1.3E-06	1.1E-07	4.3E-08	5.8E-06
AROMATICS C9 to C10	Isopropylbenzene	8.76E-02						3.6E-07	7.2E-07	9.3E-09	6.5E-09	1.1E-06
DICHLOROMETHANE	Methylene Chloride	8.70E-03	1.5E-13	4.6E-14	4.0E-15	2.3E-17	2.0E-13	1.8E-06	5.4E-07	4.6E-08	5.4E-10	2.4E-06
TETRACHLOROETHYLENE	Tetrachloroethene	3.65E-02	6.4E-12	1.9E-12	1.7E-13	2.9E-14	8.5E-12	7.5E-06	2.3E-06	1.9E-07	3.4E-08	1.0E-05
TRICHLOROETHYLENE	Trichloroethene	3.27E-01	1.4E-10	4.3E-11	3.7E-12	4.3E-13	1.9E-10	8.1E-04	2.4E-04	2.1E-05	6.1E-06	1.1E-03
Vinyl chloride	Vinyl chloride	4.57E-02	5.6E-10	1.7E-10	1.5E-11	1.1E-13	7.5E-10	1.9E-05	5.7E-06	4.9E-07	1.7E-08	2.5E-05
METHYLNAPHTHALENE, 2-	2-Methylnaphthalene	2.35E-01						2.2E-05	7.3E-05	5.6E-07	1.7E-08	9.5E-05
Acenaphthene	Acenaphthene	2.27E-01						4.2E-07	1.4E-06	1.1E-08	1.7E-08	1.9E-06
BIS(2-ETHYLHEXYL)PHTHALATE	BIS(2-ETHYLHEXYL)PHTHALA	2.40E-01	2.9E-11	3.0E-11	7.6E-13	8.3E-14	6.0E-11	1.5E-05	1.5E-05	3.8E-07	1.3E-06	3.1E-05
Fluorene	Fluorene	1.90E-01						1.8E-07	5.9E-07	4.5E-09	1.4E-08	7.8E-07
Naphthalene	Naphthalene	2.72E-01						5.0E-07	1.7E-06	1.3E-08	3.4E-06	5.6E-06
Phenanthrene	Phenanthrene	3.39E-01						4.2E-07	1.4E-06	1.1E-08	2.5E-08	1.9E-06
Anthracene	Anthracene	2.03E-01						7.5E-08	2.5E-07	1.9E-09	1.5E-08	3.4E-07
BENZO(a)ANTHRACENE	Benzo[a]anthracene	2.45E-01	4.7E-10	3.2E-10	1.2E-11	1.4E-11	8.1E-10	3.0E-07	2.0E-07	7.8E-09	1.8E-08	5.3E-07
BENZO(a)PYRENE	Benzo[a]pyrene	2.22E-01	4.3E-09	2.9E-09	1.1E-10	1.2E-10	7.4E-09	2.7E-07	1.8E-07	7.1E-09	1.7E-08	4.8E-07
BENZO(g,h,i)PERYLENE	Benzo[g,h,i]perylene	1.99E-01						2.5E-07	8.2E-07	6.4E-09	1.5E-08	1.1E-06
BENZO(k)FLUORANTHENE	Benzo[k]fluoranthene	2.23E-01	4.3E-11	2.9E-11	1.1E-12	1.2E-12	7.4E-11	2.7E-07	1.8E-07	7.1E-09	1.7E-08	4.8E-07
AROMATICS C11 to C22	C11-C22 Aromatics	5.47E+00						6.7E-06	2.3E-05	1.7E-07	4.1E-07	3.0E-05
ALIPHATICS C19 to C36	C19-C36 Aliphatics	5.08E+00						1.0E-06	2.1E-06	2.7E-08		3.2E-06
ALIPHATICS C9 to C18	C9-C18 Aliphatics	3.76E+00						4.6E-06	9.3E-06	1.2E-07	2.3E-07	1.4E-05
Chrysene	Chrysene	2.44E-01	4.7E-11	3.1E-11	1.2E-12	1.4E-12	8.1E-11	3.0E-07	2.0E-07	7.8E-09	1.8E-08	5.3E-07
DIBENZO(a,h)ANTHRACENE	Dibenz(a,h)anthracene	1.96E-01	3.8E-09	2.5E-09	9.8E-11	1.1E-10	6.5E-09	2.4E-07	1.6E-07	6.3E-09	1.5E-08	4.2E-07
Fluoranthene	Fluoranthene	2.96E-01						1.1E-06	3.7E-06	2.8E-08	2.2E-08	4.8E-06
Pyrene	Pyrene	2.90E-01						3.6E-07	1.2E-06	9.3E-09	2.2E-08	1.6E-06
AROMATICS C9 to C10	C9-C10 Aromatics	8.69E+01						3.6E-04	7.2E-04	9.2E-06	6.5E-06	1.1E-03
ALIPHATICS C9 to C12	C9-C12 Aliphatics	1.84E+02						2.3E-04	4.6E-04	5.9E-06	1.1E-05	7.0E-04
Ethylbenzene	Ethylbenzene	7.92E+01						1.9E-03	5.9E-04	5.1E-05	3.3E-07	2.6E-03
XYLENES (Mixed Isomers)	m&p-Xylenes	3.61E+02						1.1E-03	3.4E-04	2.9E-05	3.4E-05	1.5E-03
XYLENES (Mixed Isomers)	o-Xylene	8.78E+01						2.7E-04	8.2E-05	7.0E-06	8.2E-06	3.7E-04
Toluene	Toluene	1.25E+01						1.9E-05	5.8E-06	5.0E-07	9.3E-08	2.6E-05

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-13
0-15 Soil - Construction Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Construction Worker - Soil: Table CW-1
Exposure Point Concentration (EPC) and Risk
Based on Construction Worker 18-25 years of age

ShortForm Version 10-12 | Prepared by: CF 9/29/2020 & 5/10/202
Vlookup Version v0315 | Checked by: KALS 6/20/2022

ELCR (all chemicals) = 1.2E-07
HI (all chemicals) = 5.9E-01

****Do not insert or delete any rows****
Click on empty cell below and select OHM using arrow.

Oil or Hazardous Material (OHM)	COC Name	EPC (mg/kg)	ELCR ingestion	ELCR dermal	ELCR inhalation GI	ELCR inhalation pulmonary	$ELCR_{total}$	Subchronic HQ_{ing}	Subchronic HQ_{derm}	Subchronic HQ_{inh-GI}	Subchronic HQ_{inh}	HQ_{total}
Aluminum	Aluminum	1.41E+04						1.7E-02	1.7E-02	4.5E-04	1.0E-01	1.4E-01
Antimony	Antimony	1.94E+00						6.0E-03	6.0E-03	1.5E-04	7.2E-06	1.2E-02
Barium	Barium	6.56E+01						1.2E-03	1.2E-03	3.0E-05	4.9E-04	2.8E-03
Beryllium	Beryllium	3.42E-01				2.2E-10	2.2E-10	8.4E-05	8.5E-05	2.2E-06	6.4E-04	8.1E-04
CHROMIUM(III)	Chromium	3.50E+02						2.9E-04	2.9E-04	7.5E-06	4.3E-02	4.4E-02
COBALT	Cobalt	9.71E+00				2.3E-08	2.3E-08	4.0E-03	4.0E-03	1.0E-04	1.8E-02	2.6E-02
Copper	Copper	2.02E+02						2.5E-02	2.5E-02	6.4E-04		5.1E-02
CHROMIUM(VI)	Hexavalent Chromium	2.44E+01				7.8E-08	7.8E-08	1.5E-03	1.5E-03	3.9E-05	3.0E-03	6.1E-03
Lead	Lead	4.00E+01						3.3E-02	4.0E-03	8.5E-04	1.5E-03	3.9E-02
Manganese	Manganese	2.98E+02						2.6E-03	2.6E-03	6.8E-05	2.2E-01	2.3E-01
Mercury	Mercury	4.61E-02						9.5E-05	1.9E-04	2.5E-06	5.7E-06	2.9E-04
Nickel	Nickel	3.82E+01				4.9E-09	4.9E-09	2.3E-03	4.7E-03	6.1E-05	1.4E-03	8.6E-03
Selenium	Selenium	7.69E-01						1.9E-04	1.9E-05	4.9E-06	9.5E-06	2.2E-04
Silver	Silver	2.85E+00						7.0E-04	2.1E-03	1.8E-05	7.6E-04	3.6E-03
Thallium	Thallium	1.40E+00						2.2E-03	2.2E-04	5.6E-05	3.7E-03	6.2E-03
Vanadium	Vanadium	3.27E+01						4.5E-03	4.5E-03	1.2E-04	1.2E-03	1.0E-02
Zinc	Zinc	4.59E+01						1.9E-04	1.9E-04	4.9E-06	1.2E-03	1.6E-03

Construction Worker - Soil: Table CW-2

Equations to Calculate Cancer Risk for Construction Worker

Vlookup Version v0315

Cancer Risk from Ingestion

$$ELCR_{ing} = LADD_{ing} * CSF_{oral}$$

$$LADD_{ing} = \frac{EPC * IR * RAF_{c\text{-}ing} * EF * ED_{ing} * EP * C1}{BW * AP_{lifetime}}$$

Cancer Risk from Dermal Absorption

$$ELCR_{derm} = LADD_{derm} * CSF_{oral}$$

$$LADD_{derm} = \frac{EPC * SA * AF * RAF_{c\text{-}derm} * EF * ED_{derm} * EP * C1}{BW * AP_{lifetime}}$$

Cancer Risk from Particulate Inhalation - Gastrointestinal Absorption

$$ELCR_{inh\text{-}GI} = LADD_{inh\text{-}GI} * CSF_{oral}$$

$$LADD_{inh\text{-}GI} = \frac{EPC * RCAF_{inh\text{-}gi} * PM_{10} * VR_{work} * RAF_{c\text{-}ing} * EF * ED_{inh} * EP * C2 * C3 * C4}{BW * AP_{lifetime}}$$

Cancer Risk from Particulate Inhalation - Pulmonary Absorption

$$ELCR_{inh} = LADD_{inh} * CSF_{inhalation}$$

$$LADD = \frac{EPC * RCAF_{inh} * PM_{10} * VR_{work} * RAF_{c\text{-}inh} * EF * ED_{inh} * EP * C2 * C3 * C4}{BW * AP_{lifetime}}$$

Parameter	Value	Units
CSF	OHM-specific	$(mg/kg\text{-}day)^{-1}$
LADD	age/OHM-specific	mg/kg-day
EPC	OHM-specific	mg/kg
IR	100	mg/day
$RAF_{c\text{-}ing}$	OHM-specific	dimensionless
$RAF_{c\text{-}derm}$	OHM-specific	dimensionless
$RAF_{c\text{-}inh}$	OHM-specific	dimensionless
EF	0.714	event/day
$ED_{ing\ \&\ derm}$	1	day/event
ED_{inh}	0.333	day/event
EP	182	days
C1	1.0E-06	kg/mg
C2	1.0E-09	kg/µg
C3	1440	min/days
C4	1.0E-03	m^3/L
BW	58.0	kg
$AP_{(lifetime)}$	25,550	days
VR_{work}	60	L/min
AF	0.29	mg/cm^2
SA	3473	cm^2/day
$RCAF_{inh\text{-}gi}$	1.5	dimensionless
$RCAF_{inh}$	0.5	dimensionless
PM_{10}	60	$\mu g/m^3$

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Construction Worker - Soil: Table CW-3

Equations to Calculate Noncancer Risk for Construction Worker

Vlookup Version v0315

Noncancer Risk from Ingestion

$$HQ_{ing} = \frac{ADD_{ing}}{RfD_{oral\text{-}subchronic}}$$

$$ADD_{ing} = \frac{EPC * IR * RAF_{nc\text{-}ing} * EF * ED_{ing} * EP * C1}{BW * AP_{noncancer}}$$

Noncancer Risk from Dermal Absorption

$$HQ_{derm} = \frac{ADD_{derm}}{RfD_{oral\text{-}subchronic}}$$

$$ADD_{dermal} = \frac{EPC * SA * AF * RAF_{nc\text{-}derm} * EF * ED_{dermal} * EP * C1}{BW * AP_{noncancer}}$$

Noncancer Risk from Particulate Inhalation - Gastrointestinal Absorption

$$HQ_{inh\text{-}GI} = \frac{ADD_{inh\text{-}GI}}{RfD_{oral\text{-}subchronic}}$$

$$ADD_{inh\text{-}GI} = \frac{EPC * RCAF_{inh\text{-}gi} * PM_{10} * VR_{work} * RAF_{nc\text{-}ing} * EF * ED_{inh} * EP * C2 * C3 * C4}{BW * AP_{noncancer}}$$

Noncancer Risk from Particulate Inhalation - Pulmonary Absorption

$$HQ_{inh} = \frac{ADD}{RfD_{inhalation\text{-}subchronic}}$$

$$ADD_{inh} = \frac{EPC_{soil} * RCAF_{inh} * PM_{10} * VR_{work} * RAF_{nc\text{-}inh} * EF * ED_{inh} * EP * C2 * C3 * C4}{BW * AP_{noncancer}}$$

Parameter	Value	Units
RfD	OHM-specific	mg/kg-day
ADD	OHM-specific	mg/kg-day
EPC	OHM-specific	mg/kg
IR	100	mg/day
$RAF_{nc\text{-}ing}$	OHM-specific	dimensionless
$RAF_{nc\text{-}derm}$	OHM-specific	dimensionless
$RAF_{nc\text{-}inh}$	OHM-specific	dimensionless
EF	0.714	event/day
$ED_{ing\ \&\ derm}$	1	day/event
ED_{inh}	0.333	day/event
EP	182	days
C1	1.0E-06	kg/mg
C2	1.0E-09	kg/µg
C3	1440	min/days
C4	1.0E-03	m^3/L
BW	58.0	kg
$AP_{noncancer}$	182	days
VR_{work}	60	L/min
AF	0.29	mg/cm^2
SA	3473	cm^2/day
$RCAF_{inh\text{-}gi}$	1.5	dimensionless
$RCAF_{inh}$	0.5	dimensionless
PM10	60	$µg/m^3$

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-13
0-15 Soil - Construction Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Construction Worker - Soil: Table CW-4
Definitions and Exposure Factors

Vlookup Version v0315

Parameter	Value	Units	Notes
ELCR - Excess Lifetime Cancer Risk	chemical specific	dimensionless	Pathway specific (ing =ingestion, derm=dermal, inh=inhalation)
HI - Hazard Index	chemical specific	dimensionless	Pathway specific (ing =ingestion, derm=dermal, inh=inhalation)
CSF - Cancer Slope Factor	chemical specific	$(mg/kg\text{-}day)^{-1}$	see Table CW-5.
RfD - Reference Dose	chemical specific	mg/kg-day	see Table CW-5.
LADD - Lifetime Average Daily Dose	chemical specific	mg/kg-day	Pathway specific. See Table CW-2.
ADD - Average Daily Dose	chemical specific	mg/kg-day	Pathway specific. See Table CW-3.
EPC - Exposure Point Concentration	chemical specific	mg/kg	see Table CW-1.
IR - Soil Ingestion Rate	100	mg/day	MADEP. 2002. Technical Update: Calculation of an Enhanced Soil Ingestion Rate. (http://www.mass.gov/dep/ors/orspubs.htm).
RAF_c - Relative Absorption Factor for Cancer Effects	chemical specific	dimensionless	Pathway specific - see Table CW-5.
RAF_{nc} - Relative Absorption Factor for Noncancer Effects	chemical specific	dimensionless	Pathway specific - see Table CW-5.
EF - Exposure Frequency	0.714	event/day	5 events (days) / 7 events (days) in a week; MADEP 1995 Guidance for Disposal Site Risk Characterization pg B-38.
$ED_{ing,derm}$ - Exposure Duration for ingestion or dermal exposure	1	day/event	
ED_{inh} - Exposure Duration for inhalation exposure	0.333	day/event	Represents 8 hours / event.
EP - Exposure Period	182	days	6 months; MADEP 1995 Guidance for Disposal Site Risk Characterization.
BW - Body Weight	58.0	kg	U.S. EPA. 1997. Exposure Factors Handbook. Table 7-7, Females, ages 18 - 25.
$AP_{(lifetime)}$ - Averaging Period for lifetime	25,550	days	Represents 70 years
$AP_{(noncancer)}$ - Averaging Period for noncancer	182	days	6 months; MADEP 1995 Guidance for Disposal Site Risk Characterization.
AF - Adherence Factor	0.29	mg/cm^2	MA DEP. 2002 Technical Update: Weighted Skin-Soil Adherence Factors. (http://www.mass.gov/dep/ors/orspubs.htm)
VR_{work} - Ventilation Rate during work (heavy exertion)	60	L/min	Table B-4 MADEP 1995 Guidance for Disposal Site Risk Characterization.
SA - Surface Area	3473	cm^2/day	MADEP. 1995. Guidance for Disposal Site Risk Characterization. 50th percentile for females. Appendix Table B-2.
$IFAF_{inh\text{-}gi}$ - Ingestion Fraction Adjustment Factor, gastrointestinal	1.5	dimensionless	MADEP 2007. Characterization of Risks Due to Inhalation of Particulates by Construction Workers
$IFAF_{inh}$ - Inhalation Fraction Adjustment Factor, inhalation	0.5	dimensionless	MADEP 2002. Characterization of Risks Due to Inhalation of Particulates by Construction Workers
PM10 - Concentration of PM_{10}	60	$\mu g/m^3$	MADEP 1995 Guidance for Disposal Site Risk Characterization pg B-11

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Construction Worker - Soil: Table CW-5
Chemical-Specific Data

Vlookup Version v0315

Oil or Hazardous Material	Oral CSF $(mg/kg\text{-}day)^{-1}$	$RAF_{c\text{-}ing}$	$RAF_{c\text{-}derm}$	$RAF_{c\text{-}inh}$	Inhalation CSF $(mg/kg\text{-}day)^{-1}$	Subchronic Oral RfD mg/kg-day	Subchronic $RAF_{nc\text{-}ing}$	Subchronic $RAF_{nc\text{-}derm}$	Subchronic $RAF_{nc\text{-}inh}$	Subchronic Inhalation RfD
TRICHLOROETHYLENE	5.0E-02	1	0.03	1	1.8E-02	5.0E-04	1	0.03	1	5.7E-04
Vinyl chloride	1.4E+00	1	0.03	1	3.1E-02	3.0E-03	1	0.03	1	2.9E-02
METHYLNAPHTHALENE, 2-						4.0E-03	0.3	0.1	1	1.4E-01
Acenaphthene						2.0E-01	0.3	0.1	1	1.4E-01
BIS(2-ETHYLHEXYL)PHTHALATE	1.4E-02	1	0.1	1	4.6E-03	2.0E-02	1	0.1	1	2.0E-03
Fluorene						4.0E-01	0.3	0.1	1	1.4E-01
Naphthalene						2.0E-01	0.3	0.1	1	8.6E-04
Phenanthrene						3.0E-01	0.3	0.1	1	1.4E-01
Anthracene						1.0E+00	0.3	0.1	1	1.4E-01
BENZO(a)ANTHRACENE	7.3E-01	0.3	0.02	1	7.3E-01	3.0E-01	0.3	0.02	1	1.4E-01
BENZO(a)PYRENE	7.3E+00	0.3	0.02	1	7.3E+00	3.0E-01	0.3	0.02	1	1.4E-01
BENZO(g,h,i)PERYLENE						3.0E-01	0.3	0.1	1	1.4E-01
AROMATICS C11 to C22						3.0E-01	0.3	0.1	1	1.4E-01
ALIPHATICS C19 to C36						6.0E+00	1	0.2		
ALIPHATICS C9 to C18						1.0E+00	1	0.2	1	1.7E-01
Chrysene	7.3E-02	0.3	0.02	1	7.3E-02	3.0E-01	0.3	0.02	1	1.4E-01
DIBENZO(a,h)ANTHRACENE	7.3E+00	0.3	0.02	1	7.3E+00	3.0E-01	0.3	0.02	1	1.4E-01
Fluoranthene						1.0E-01	0.3	0.1	1	1.4E-01
Pyrene						3.0E-01	0.3	0.1	1	1.4E-01
AROMATICS C9 to C10						3.0E-01	1	0.2	1	1.4E-01
ALIPHATICS C9 to C12						1.0E+00	1	0.2	1	1.7E-01
Ethylbenzene						5.0E-02	1	0.03	1	2.6E+00
XYLENES (Mixed Isomers)						4.0E-01	1	0.03	1	1.1E-01
XYLENES (Mixed Isomers)						4.0E-01	1	0.03	1	1.1E-01
Toluene						8.0E-01	1	0.03	1	1.4E+00
Aluminum						1.0E+00	1	0.1	1	1.4E-03
Antimony						4.0E-04	1	0.1	1	2.9E-03
Arsenic	1.5E+00	0.5	0.03	1	1.1E+01	3.0E-04	0.5	0.03	1	5.7E-06
Barium						7.0E-02	1	0.1	1	1.4E-03
Beryllium					8.4E+00	5.0E-03	1	0.1	1	5.7E-06
CHROMIUM(III)						1.5E+00	1	0.1	1	8.6E-05
COBALT					3.2E+01	3.0E-03	1	0.1	1	5.7E-06
Copper						1.0E-02	1	0.1	1	
CHROMIUM(VI)					4.2E+01	2.0E-02	1	0.1	1	8.6E-05
Lead						7.5E-04	0.5	0.006	1	2.9E-04
Manganese						1.4E-01	1	0.1	1	1.4E-05
Mercury						3.0E-04	0.5	0.1	1	8.6E-05
Nickel					1.7E+00	2.0E-02	1	0.2	1	2.9E-04
Selenium						5.0E-03	1	0.01	1	8.6E-04
Silver						5.0E-03	1	0.3	1	4.0E-05
Thallium						8.0E-04	1	0.01	1	4.0E-06
Vanadium						9.0E-03	1	0.1	1	2.9E-04
Zinc						3.0E-01	1	0.1	1	4.0E-04

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-13
0-15 Soil - Construction Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

Construction Worker - Soil: Table CW-6
Cyanide Calculations

The soil cyanide concentration limit set to protect a construction worker against an acute, potentially lethal one-time dose of cyanide from incidental ingestion of contaminated soil is 12,000 mg/kg_{soil}. This is the concentration of available cyanide in soil below which acute human health effects would not be expected following a one-time exposure. This soil concentration is calculated using the equation below with a one-time soil ingestion estimate of 50 mg_{soil} and an available cyanide dose limit of 0.01 $mg/kg_{body\ weight}$.

MassDEP's guidance on evaluating the risk from a one-time cyanide dose considers cyanide's potentially lethal effects as well as information on cyanide metabolism:

> Cyanides are detoxified rapidly by the body, and a large acute dose which overwhelms the detoxification mechanism is potentially more toxic than the same dose distributed over a period of hours. (MassDEP *Background Documentation for the Development of an Available Cyanide Benchmark Concentration,* originally dated October 1992, Modified August 1998)

Assessment of a potential one-time dose requires an estimate of the maximum soil concentration the trespasser could contact at any one time. The average soil concentration within a typical exposure area will underestimate the potential one-time dose. Therefore, to assess the acute risk of a one-time potentially lethal dose, the EPC for cyanide should be a conservative estimate of the maximum concentration.

The construction worker soil concentration limit to protect against adverse effects from an acute (one-time) exposure to cyanide is 12,000 mg/kg.

Acute Concentration Calculation for Cyanide

$$\text{Concentration} = \frac{\text{HQ x Acute Dose Limit x BW}}{\text{IR x RAF x Conversion Factor}}$$

Parameter	Value	Units
HQ (Hazard Quotient)	1	(unitless)
Acute Dose Limit	0.01	mg avail. CN/ kg BW
BW (Body Weight) $_{11\text{-}12}$	58	kg
IR $_{(1\text{-time reasonable max})}$	50	mg
Conversion Factor	1.0E-06	kg soil / mg soil
RAF	1	(unitless)

The toxicological basis for estimating an allowable one-time dose is documented in MassDEP's 1992 *Background Documentation for the Development of an "Available Cyanide" Benchmark Concentration,* which is published at:
http://www.mass.gov/eea/docs/dep/toxics/stypes/dscyanide.pdf

MassDEP ORS
Contact: Lydia Thompson
Lydia.Thompson@state.ma.us
617-556-1165

Attachment D-14
On-Property Groundwater - Construction Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

$$ADD_{ing} = \frac{C_{gw} \times IR_{sw} \times RAF_{ow} \times EF \times EP}{AP \times BW}$$

$$ADD_{der} = \frac{C_{gw} \times CF \times SA \times K_p \times ET \times RAF_{dw} \times EF \times EP}{AP \times BW}$$

$$HI_{ing} = \frac{ADD_{ing}}{RfD}$$

$$HI_{der} = \frac{ADD_{der}}{RfD}$$

$$HI = HI_{ing} + HI_{der}$$

$$Risk = ADD_{ing} \times CSF$$

$$Risk = ADD_{der} \times CSF$$

$$Risk = Risk_{ing} + Risk_{der}$$

Parameter	Definition	Units	Value	Source	Comment
IRgw	Groundwater Ingestion Rate	L/d	0.01	professional judgement	
SA	Groundwater Dermal Contact Skin Exposed	cm2	817	MassDEP, 1995	Median value for hands of females
EF	Groundwater Exposure Frequency	d/y	130	MassDEP S-3 assumption	5 days/week for 26 weeks
EP	Groundwater Exposure Period	y	1	MassDEP S-3 assumption	
ATc	Groundwater Averaging Time - Cancer	d	25550	MassDEP S-3 assumption	70 year lifetime
ATn	Groundwater Averaging Time - Non-Cancer	d	182	MassDEP S-3 assumption	six month construction duration
ET	Groundwater Dermal Contact Exposure Time	hr/d	2	professional judgement	
BW	Body Weight	kg	58	MassDEP S-3 assumption	
CF	Conversion Factor	L/cm3	1.00E-03		

				Incidental Ingestion						Dermal Contact							Total	
Compound	EPC (mg/L)	RfD (mg/kg-d)	CSF 1/(mg/kg-d)	RAFowc	ADDing-c mg/kg-d	Risking	RAFownc	ADDing-nc mg/kg-d	HIing	Kp (cm/hr)	RAFdwc	ADDder-c mg/kg-d	Riskder	RAFdwnc	ADDder-nc mg/kg-d	HIder	Risk(GW)	HI(GW)
Chromium	0.23	1.5	--	1	--	--	1	2.9E-05	1.9E-05	1.00E-03	1	--	--	1	4.7E-06	3.1E-06	--	2.2E-05
Hexavalent Chromium	0.21	0.02	--	1	--	--	1	2.6E-05	1.3E-03	2.00E-03	1	--	--	1	8.5E-06	4.2E-04	--	1.7E-03
1,1-Dichloroethene	0.0020	0.05	--	1	--	--	1	2.4E-07	4.8E-06	1.17E-02	1	--	--	1	4.6E-07	9.2E-06	--	1.4E-05
Chloroethane	0.0078	0.1	--	1	--	--	1	9.6E-07	9.6E-06	6.07E-03	1	--	--	1	9.5E-07	9.5E-06	--	1.9E-05
cis-1,2-Dichloroethene	0.055	0.02	--	1	--	--	1	6.7E-06	3.4E-04	1.10E-02	1	--	--	1	1.2E-05	6.1E-04	--	9.4E-04
Methylene Chloride	0.00070	0.006	0.002	1	6.1E-10	1.2E-12	1	8.6E-08	1.4E-05	3.54E-03	1	3.6E-10	7.1E-13	1	5.0E-08	8.3E-06	1.9E-12	2.3E-05
Tetrachloroethene	0.00043	0.006	0.02	1	3.8E-10	7.5E-12	1	5.3E-08	8.8E-06	3.34E-02	1	2.1E-09	4.1E-11	1	2.9E-07	4.8E-05	4.9E-11	5.7E-05
trans-1,2-Dichloroethene	0.0091	0.2	--	1	--	--	1	1.1E-06	5.6E-06	1.10E-02	1	--	--	1	2.0E-06	1.0E-05	--	1.6E-05
Trichloroethene	0.093	0.0005	0.05	1	8.2E-08	4.1E-09	1	1.1E-05	2.3E-02	1.16E-02	1	1.5E-07	7.7E-09	1	2.2E-05	4.3E-02	1.2E-08	6.6E-02
Vinyl Chloride	0.018	0.003	1.4	1	1.5E-08	2.2E-08	1	2.2E-06	7.2E-04	8.38E-03	1	2.1E-08	2.9E-08	1	3.0E-06	9.9E-04	5.1E-08	1.7E-03
Total						2.6E-08			2.5E-02				3.7E-08			4.5E-02	6.3E-08	7.1E-02

NA - Not available
NC - Not calculated
MassDEP (1995). Appendices to the Guidance for Disposal Site Risk Characterization - In support of the Massachusetts Contingency Plan. Interim Final Policy. WSC/ORS-95-141. July, 1995.

Prepared by: CF 10/2/2020 & 3/16/2022
Checked by: KALS 6/20/2022

Attachment D-15
On-Property Excavation Air - Construction Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

$$C_{air} = \frac{C_{source} \times (VF \text{ or } alpha)}{SDF}$$

$$ADE_{inh} = \frac{C_{air} \times RAF_i \times ET \times EF \times EP}{24hr/d \times 365d/y \times AT}$$

$$HI_{inh} = \frac{ADE_{inh}}{RfC}$$

$$Risk = ADE_{inh} \times URF \times C$$

Parameter	Definition	Units	Value	Source	Comment
ET	Outdoor Air Exposure Time - Volatiles	hr/d	8	professional judgement	typical work day
EF	Outdoor Air Exposure Frequency - Volatiles	d/y	130	MassDEP S-3 assumption	5 days/week for 26 weeks
EP	Outdoor Air Exposure Period - Volatiles	y	1	MassDEP S-3 assumption	
ATc	Outdoor Air Averaging Time - Cancer - Volatiles	y	70	MassDEP S-3 assumption	70 year lifetime
ATn	Outdoor Air Averaging Time - Non-Cancer - Volatiles	y	0.5	MassDEP S-3 assumption	six month duration
C	Conversion Factor	ug/mg	1000		

Compound (1)	CASRN	Excavation Air EPC (mg/m3)	RfC (mg/m3)	URF 1/(ug/m3)	RAFic	ADE-c mg/m3	Riskinh	RAFinc	ADE-nc mg/m3	HIinh	Risk (Excavation Air)	HI (Excavation Air)
1,1-Dichloroethene	75-35-4	4.3E-05	0.2	--	1	--	--	1	1.0E-05	5.14E-05	--	5.14E-05
Chloroethane	75-00-3	2.6E-04	4	--	1	--	--	1	6.1E-05	1.5E-05	--	1.5E-05
cis-1,2-Dichloroethene	156-59-2	1.2E-03	0.06	--	1	--	--	1	2.8E-04	4.7E-03	--	4.7E-03
Methylene Chloride	75-09-2	1.7E-05	0.6	1.0E-08	1	2.9E-08	2.9E-13	1	4.0E-06	6.7E-06	2.9E-13	6.7E-06
Tetrachloroethene	127-18-4	5.6E-06	0.04	3.0E-06	1	9.4E-09	2.8E-11	1	1.3E-06	3.3E-05	2.8E-11	3.3E-05
trans-1,2-Dichloroethene	156-60-5	2.0E-04	0.06	--	1	--	--	1	4.7E-05	7.9E-04	--	7.9E-04
Trichloroethene	79-01-6	1.5E-03	0.002	5.0E-06	1	2.6E-06	1.3E-08	1	3.6E-04	1.8E-01	1.3E-08	1.8E-01
Vinyl Chloride	75-01-4	6.0E-04	0.1	8.8E-06	1	1.0E-06	9.0E-09	1	1.4E-04	1.4E-03	9.0E-09	1.4E-03
Total							2.2E-08			1.9E-01	2.2E-08	1.9E-01

NA - Not available
(1) Only volatile chemicals are included in this calculation.

Prepared by: CF 10/2/2020 & 3/16/2022
Checked by: KALS 6/21/2022

Attachment D-16
Off-Property Groundwater - Construction Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

$$ADD_{ing} = \frac{C_{gw} \times IR_{sw} \times RAF_{ow} \times EF \times EP}{AP \times BW}$$

$$ADD_{der} = \frac{C_{gw} \times CF \times SA \times K_p \times ET \times RAF_{dw} \times EF \times EP}{AP \times BW}$$

$$HI_{ing} = \frac{ADD_{ing}}{RfD}$$

$$HI_{der} = \frac{ADD_{der}}{RfD}$$

$$HI = HI_{ing} + HI_{der}$$

$$Risk = ADD_{ing} \times CSF$$

$$Risk = ADD_{der} \times CSF$$

$$Risk = Risk_{ing} + Risk_{der}$$

Parameter	Definition	Units	Value	Source	Comment
IRgw	Groundwater Ingestion Rate	L/d	0.01	professional judgement	
SA	Groundwater Dermal Contact Skin Exposed	cm2	817	MassDEP, 1995	Median value for hands of females
EF	Groundwater Exposure Frequency	d/y	130	MassDEP S-3 assumption	5 days/week for 26 weeks
EP	Groundwater Exposure Period	y	1	MassDEP S-3 assumption	
ATc	Groundwater Averaging Time - Cancer	d	25550	MassDEP S-3 assumption	70 year lifetime
ATn	Groundwater Averaging Time - Non-Cancer	d	182	MassDEP S-3 assumption	six month construction duration
ET	Groundwater Dermal Contact Exposure Time	hr/d	2	professional judgement	
BW	Body Weight	kg	58	MassDEP S-3 assumption	
CF	Conversion Factor	L/cm3	1.00E-03		

	EPC			Incidental Ingestion						Dermal Contact							Total	
Compound	(mg/L)	RfD (mg/kg-d)	CSF 1/(mg/kg-d)	RAFowc	ADDing-c mg/kg-d	Risking	RAFownc	ADDing-nc mg/kg-d	HIing	Kp (cm/hr)	RAFdwc	ADDder-c mg/kg-d	Riskder	RAFdwnc	ADDder-nc mg/kg-d	HIder	Risk(GW)	HI(GW)
Chromium	0.018	1.5	--	1	--	--	1	2.2E-06	1.5E-06	1.00E-03	1	--	--	1	3.6E-07	2.4E-07	--	1.7E-06
Hexavalent Chromium	0.023	0.02	--	1	--	--	1	2.8E-06	1.4E-04	2.00E-03	1	--	--	1	9.1E-07	4.5E-05	--	1.8E-04
cis-1,2-Dichloroethene	0.0029	0.02	--	1	--	--	1	3.6E-07	1.8E-05	1.10E-02	1	--	--	1	6.4E-07	3.2E-05	--	5.0E-05
trans-1,2-Dichloroethene	0.0052	0.2	--	1	--	--	1	6.4E-07	3.2E-06	1.10E-02	1	--	--	1	1.2E-06	5.8E-06	--	9.0E-06
Trichloroethene	0.0088	0.0005	0.05	1	7.7E-09	3.8E-10	1	1.1E-06	2.2E-03	1.16E-02	1	1.5E-08	7.3E-10	1	2.0E-06	4.1E-03	1.1E-09	6.3E-03
Total						3.8E-10			2.3E-03				7.3E-10			4.2E-03	1.1E-09	6.5E-03

NA - Not available
NC - Not calculated

Prepared by: CF 10/2/2020 & 3/16/2022
Checked by: KALS 6/20/2022

Attachment D-17
Off-Property Excavation Air - Construction Worker
Method 3 Risk Characterization
Conductorlab
Groton, Massachusetts

$$C_{air} = \frac{C_{source} \times (VF\ or\ alpha)}{SDF}$$

$$ADE_{inh} = \frac{C_{air} \times RAF_i \times ET \times EF \times EP}{24hr/d \times 365d/y \times AT}$$

$$HI_{inh} = \frac{ADE_{inh}}{RfC}$$

$$Risk = ADE_{inh} \times URF \times C$$

Parameter	Definition	Units	Value	Source	Comment
ET	Outdoor Air Exposure Time - Volatiles	hr/d	8	professional judgement	typical work day
EF	Outdoor Air Exposure Frequency - Volatiles	d/y	130	MassDEP S-3 assumption	5 days/week for 26 weeks
EP	Outdoor Air Exposure Period - Volatiles	y	1	MassDEP S-3 assumption	
ATc	Outdoor Air Averaging Time - Cancer - Volatiles	y	70	MassDEP S-3 assumption	70 year lifetime
ATn	Outdoor Air Averaging Time - Non-Cancer - Volatiles	y	0.5	MassDEP S-3 assumption	six month duration
C	Conversion Factor	ug/mg	1000		

Compound (1)	CASRN	Excavation Air EPC (mg/m3)	RfC (mg/m3)	URF 1/(ug/m3)	RAFic	ADE-c mg/m3	Riskinh	RAFinc	ADE-nc mg/m3	HIinh	Risk (Excavation Air)	HI (Excavation Air)
cis-1,2-Dichloroethene	156-59-2	6.47E-05	0.06	--	1	--	--	1	1.5E-05	2.6E-04	--	2.6E-04
trans-1,2-Dichloroethene	156-60-5	1.19E-04	0.06	--	1	--	--	1	2.8E-05	4.7E-04	--	4.7E-04
Trichloroethene	79-01-6	1.48E-04	0.002	5.0E-06	1	2.5E-07	1.3E-09	1	3.5E-05	1.8E-02	1.3E-09	1.8E-02
Total							1.3E-09			1.8E-02	1.3E-09	1.8E-02

NA - Not available
(1) Only volatile chemicals are included in this calculation.

Prepared by: CF 10/2/2020 & 3/16/2020
Checked by: KALS 6/21/2022

Honeywell

DRAFT

APPENDIX D
ACTIVITY AND USE LIMITATION

Honeywell

DRAFT

APPENDIX E
ECOLOGICAL RISK CHARACTERIZATION

UPDATED ECOLOGICAL RISK CHARACTERIZATION

CONDUCTORLAB SITE
430 MAIN STREET
GROTON, MASSACHUSETTS
RTN 2-0000053

Prepared For:

Honeywell
THE POWER OF CONNECTED

Honeywell International Inc.
115 Tabor Road
Morris Plains, NJ 07950

Prepared By:

WSP USA Environment & Infrastructure Inc.
100 Apollo Drive, Suite 302
Chelmsford, Massachusetts 01824
Phone: (978) 692-9090
Fax: (833) 774-2707

Project No. 3651220229.5200.520001

March 2023

UPDATED ECOLOGICAL RISK CHARACTERIZATION

CONDUCTORLAB SITE
430 MAIN STREET
GROTON, MASSACHUSETTS
RTN 2-0000053

Prepared For:

Honeywell
THE POWER OF CONNECTED

Honeywell International Inc.
115 Tabor Road
Morris Plains, NJ 07950

Prepared By:

WSP USA Environment & Infrastructure Inc.
100 Apollo Drive, Suite 302
Chelmsford, Massachusetts 01824
Phone: (978) 692-9090
Fax: (833) 774-2707

Project No. 3651220229.5200.520001

March 2023

Title_____Date:
Name

Title_____Date:
Name

TABLE OF CONTENTS

1.0 SUMMARY OF FINDINGS 1

2.0 REGULATORY APPROACH 3

3.0 SITE DESCRIPTION AND HISTORY 6

3.1 OPERATING HISTORY 6
3.2 RELEASE HISTORY 7
3.3 PREVIOUS SITE INVESTIGATIONS AND RESPONSE ACTIONS 7
3.3.1 GROUNDWATER 8
3.3.2 SOIL 9
3.4 CURRENT DISPOSAL SITE BOUNDARIES AND OHM 10

4.0 ENVIRONMENTAL SETTING 11

4.1 TERRESTRIAL HABITAT 11
4.2 AQUATIC HABITAT 12
4.3 GROUNDWATER 15
4.4 ACEC AND PRIORITY HABITAT 15

5.0 STAGE I ES 16

5.1 COMPLETE EXPOSURE PATHWAYS 16
5.1.1 SURFACE WATER AND SEDIMENT 16
5.1.2 SOIL 16
5.1.3 GROUNDWATER 17
5.2 DATA USED IN THE UPDATED STAGE I ES 17
5.2.1 SURFACE WATER 18
5.2.2 SEDIMENT 19
5.3 EVALUATION OF READILY APPARENT HARM 20
5.4 LOCAL CONDITIONS 22
5.5 EFFECTS-BASED SCREENING 23
5.5.1 ECOLOGICAL SCREENING BENCHMARKS 23
5.5.1.1 SURFACE WATER 23
5.5.1.2 SEDIMENT 24
5.5.2 BENCHMARK COMPARISON 24
5.5.2.1 SURFACE WATER 24
5.5.2.2 SEDIMENT 25
5.6 STAGE I ES CONCLUSIONS 27

6.0 STAGE II ERC – UNNAMED BROOK SURFACE WATER 28

6.1 PROBLEM FORMULATION 28
6.1.1 COMPLETE EXPOSURE PATHWAYS 29
6.1.2 ECOLOGICAL CONCEPTUAL SITE MODEL (CSM) 29
6.1.3 ASSESSMENT & MEASUREMENT ENDPOINTS 31
6.2 ANALYSIS 31
6.2.1 SURFACE WATER TOXICITY TESTS 32
6.2.1.1 JULY 2018 32
6.2.1.2 APRIL 2019 33
6.2.2 DEVELOPMENT OF SITE-SPECIFIC EFFECTS BENCHMARK 34
6.2.2.1 JULY 2018 TOXICITY TESTING 34
6.2.2.2 2019 TOXICITY TESTING 35
6.2.3 OBSERVATIONS OF AQUATIC LIFE 39
6.3 RISK CHARACTERIZATION 39
6.4 UNCERTAINTY ASSESSMENT 40
6.5 SUMMARY AND CONCLUSIONS – UNNAMED BROOK 41

7.0 STAGE II ERC – TERRESTRIAL SOIL 43

7.1 PROBLEM FORMULATION 43
7.1.1 COMPLETE EXPOSURE PATHWAYS 43
7.1.2 DATA USED IN THE STAGE II ERC FOR SOIL 44
7.1.3 ECOLOGICAL CONCEPTUAL SITE MODEL 45
7.1.4 ASSESSMENT & MEASUREMENT ENDPOINTS 45
7.2 ANALYSIS 46
7.2.1 EXPOSURE POINT CONCENTRATIONS 46
7.2.2 EVALUATION OF ECOLOGICAL EFFECTS 47
7.2.2.1 PLANT BENCHMARKS 48
7.2.2.2 INVERTEBRATE BENCHMARKS 48
7.2.2.3 BIRD AND MAMMAL BENCHMARKS 49
7.3 RISK CHARACTERIZATION 50
7.3.1 PLANTS 51
7.3.2 SOIL INVERTEBRATES 52
7.3.3 BIRDS 53
7.3.4 MAMMALS 53
7.4 UNCERTAINTY ASSESSMENT 54
7.4.1 EXPOSURE POINT CONCENTRATIONS 54
7.4.2 MINOR EXPOSURE PATHWAYS 54
7.4.3 LOECS 55
7.4.4 BIOAVAILABILITY 55
7.4.5 ANALYTES LACKING NOEC OR LOEC BENCHMARKS 56
7.4.6 NATURAL BACKGROUND 56
7.5 SUMMARY AND CONCLUSIONS – TERRESTRIAL SOIL 56

8.0 COMPARISON OF SOIL AND GROUNDWATER TO UPPER CONCENTRATION LIMITS 58

9.0 CONCLUSIONS 59

10.0 LITERATURE CITED 61

EXHIBITS

Exhibit 1. Site-Specific NOEC and LOEC for Hexavalent Chromium - 2018 35
Exhibit 2. Site-Specific NOEC and LOEC for Hexavalent Chromium - Lab A - 2019 36
Exhibit 3. Site-Specific NOEC and LOEC for Hexavalent Chromium - Lab B - 2019 37
Exhibit 4. Tabulated Hexavalent Chromium NOECs 38
Exhibit 5. Tabulated Hexavalent Chromium LOECs 38
Exhibit 6. Assessment and Measurement Endpoints – Terrestrial Soil 46
Exhibit 7. Hazard Quotient Interpretation 51

TABLES

Table 1. Samples Evaluated in the ERC
Table 2. Ecological Screening Benchmarks for Surface Water
Table 3. Ecological Screening Benchmarks for Sediment
Table 4. Surface Water Benchmark Comparison
Table 5. Sediment Benchmark Comparison
Table 6. Surface Water Toxicity Test Results - July 2018
Table 7. CSW-3 Serial Dilution - July 2018
Table 8. Surface Water Toxicity Test Results - April 2019
Table 9. Soil Summary Statistics
Table 10. Risk Calculations - Plants
Table 11. Risk Calculations - Soil Invertebrates
Table 12. Risk Calculations - Birds
Table 13. Risk Calculations - Mammals

FIGURES

Figure 1. Site Locus Map
Figure 2. Surface Water and Sediment Sampling Locations
Figure 3. Wetlands
Figure 4a. Regional Groundwater Contour Plans – Shallow/Overburden Wells
Figure 4b. Regional Groundwater Contour Plans – Bedrock Wells
Figure 5. Phase I Map
Figure 6. Surface Soil Sampling Locations

Figure 7. Chromium Concentrations in Surface Water (2020-2021)
Figure 8. Ecological Conceptual Site Model
Figure 9. Hexavalent Chromium Concentrations at CSW-3 and CSW-3A

APPENDICES

Appendix A. Photolog
Appendix B. Surface Water Data Summary
Appendix C. Sediment Data Summary
Appendix D. July 2018 Surface Water Toxicity Tests
Appendix E. April 2019 Surface Water Toxicity Tests
Appendix F. Soil Data Summary
Appendix G. 95% UCL Output
Appendix H. Bird and Mammal LOEC Derivations

ACRONYMS

95% UCL	95 percent upper confidence level on the mean
ACEC	Area of Critical Environmental Concern
AWQC	Ambient Water Quality Criteria
BGK	background
BLM	biotic ligand model
BTEX	benzene, toluene, ethylbenzene and xylene
Cr	chromium
Cr^{6+}	hexavalent chromium
CSD	Conductorlab sediment sample
CSW	Conductorlab surface water sample
DCE	dichloroethane
DIC	dissolved inorganic carbon
DOC	dissolved organic carbon
EPC	exposure point concentration
ERC	environmental risk characterization
ES	environmental screening
ESL	ecological screening level
ISCO	in-situ chemical oxidation
ISCR	in-situ chemical reduction
LOAEL	lowest-observed-adverse-effect-level
LOEC	lowest-observed-effect-concentration
MassDEP	Massachusetts Department of Environmental Protection
MCP	Massachusetts Contingency Plan
mg/kg	milligrams per kilogram
NOEC	no-observed-effect-concentration
NOAEL	no-observed-adverse-effect-level
NPDES	National Pollution Discharge Elimination System
OHM	oil and/or hazardous materials
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
ppt	parts per thousand
RAM	Release Abatement Measure

RAO	Response Action Outcome
RAP	Remedial Action Plan
RIP	Remedial Implementation Plan
RTN	release tracking number
sp.	species
SVOC	semivolatile organic compound
TCE	trichloroethene
TIE	toxic identification evaluation
TOC	total organic carbon
UCL	upper concentration limit
ug/L	micrograms per liter
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound
WWT	wastewater treatment
ypf	young/juveniles per female

1.0 SUMMARY OF FINDINGS

The Conductorlab property (the Property) is located at 430 Main Street (Route 111/119) in Groton, Massachusetts approximately 0.75 miles north of Groton center (Figure 1). The Conductorlab Disposal Site ([the Site] Release Tracking Numbers 2-00053, 2-15203, and 2-15486) has been investigated since 1986. Site boundaries are defined by releases of oil or hazardous material (OHM) to soil in terrestrial areas located on the Conductorlab property, groundwater, and surface water and sediment in a portion of the Unnamed Brook. (Figure 2). Soil data indicate soil impacts are contained to the Property; the horizontal extent of soil impacts includes the front portion of the Conductorlab Property that lies within the Disposal Site Boundary. Disposal site boundaries downgradient of the Property are defined by groundwater. Impacted groundwater is several feet below the ground surface and does not discharge into the vegetated wetland that borders the Unnamed Brook south of Main Street. The Disposal Site Boundary with respect to surface water and sediment ends between sample location CSW-7 and CSW-12, and therefore ends before the Unnamed Brook discharges to Gratuity Brook.

Remedial actions have included soil removal, groundwater pump and treat, and in-situ chemical oxidation (ISCO) treatments to remove trichloroethene (TCE) and its breakdown products, and in-situ chemical reduction (ISCR) to convert mobile chromium (hexavalent chromium) to a less mobile form (trivalent chromium).

A condition of No Significant Risk of harm to the environment exists for the Disposal Site, for the following reasons:

- Concentrations of OHM in soil are unlikely to result in adverse effects to the plant and soil invertebrate communities or to populations of birds and mammals based on comparisons of maximum and 95 percent upper confidence level on the mean (95% UCL) exposure concentrations to no-observed-effect-

concentration (NOEC) and lowest-observed-effect-concentration (LOEC) benchmarks.

- Exposure concentrations of VOCs and hexavalent chromium in the sediments of the Unnamed Brook are less than or equal to ecological sediment screening benchmarks. A Stage II ERC would find that concentrations of total chromium in sediment also do not pose significant risk to the sediment community.
- Exposure concentrations of VOCs and total chromium in surface water are generally below ecological screening benchmarks.
- Concentrations of total chromium in surface water are less than the Massachusetts Surface Water Quality Standards (SWQs) for trivalent chromium promulgated at 314 CMR 4.00.
- Concentrations of hexavalent chromium in surface water at three locations are greater than the Massachusetts Surface Water Quality Standards (SWQS) promulgated at 314 CMR 4.00. However, site-specific toxicity tests suggest that the SWQS is overly conservative for Site conditions and that hexavalent chromium does not pose a risk to the aquatic community, based on the following lines of evidence:
  - Two rounds of toxicity tests indicate that a LOEC of 90 ug/L for hexavalent chromium is protective of the aquatic community. The four most recent quarterly rounds of surface water sampling have determined that hexavalent chromium in surface water at the Site, including location CSW-3 and CSW-3A which historically had the highest concentrations, is now perennially below the LOEC concentration, and for most of the year is also below an even more protective NOEC of 60 ug/L.
  - Observations of pollution sensitive aquatic receptors present in the Unnamed Brook indicate that the aquatic community in unimpaired by hexavalent chromium.

2.0 REGULATORY APPROACH

A Phase II Ecological Risk Assessment (ERA) was performed for the Conductorlab site (RTN 2-0053) in 1993 under the October 1993 revision to the Massachusetts Contingency Plan (MCP). The 1993 ERA concluded that there was not impact to surface water. However, a site regulated under the MCP is subject to current regulations and guidance until a Permanent Solution Statement (PSS) is issued. Since the 1993 ERC was filed, there have been numerous amendments to the MCP (the most recent occurring in 2019) and updates to ecological risk assessment guidance (e.g., the 1996 *Guidance for Disposal Site Risk Characterization in Support of the MCP* and the seven technical updates issued in 2006).

Also, on December 11, 2002, the Massachusetts Executive Office of Environmental Affairs Secretary of Environmental Affairs designated the Petapawag Area of Critical Environmental Concern (ACEC) which incorporated portions of the municipalities of Ayer, Dunstable, Pepperell, Tyngsboro, and Groton including the Conductorlab property. Under the MCP, if contaminant transport from surface soil to an ACEC is possible, a Stage II Risk Characterization should be conducted even if terrestrial habitat within a site's boundaries are less than 2 acres (MassDEP, 1996).

Furthermore, since the 1993 ERA was filed, Site conditions have changed, including demolition of existing structures and implementation of remedial actions as well as numerous rounds of groundwater and surface water monitoring. Therefore, this Updated ERC has been prepared under current MCP regulations and risk assessment guidelines, and assesses current Site conditions.

For releases within the Disposal Site Boundary, this Updated ERC includes:

- A Method 3 Stage I ES which evaluates if potentially significant exposures exist in the sediment,

- A Stage II ERC which evaluates potentially significant exposures in surface water, and
- A Stage II ERC which evaluates potentially significant exposures in terrestrial soil.

Other than the Unnamed Brook, impacted groundwater is not expressed in any other wetlands within the Disposal Site Boundary.

The Updated ERC has been performed following:

- Regulations for a Method 3 Environmental Risk Characterization (310 CMR 40.0995) (MassDEP, 2019),
- Guidance for Disposal Site Risk Characterization in Support of the MCP (MassDEP, 1995; 1996),
- MassDEP Interim Technical Updates (MassDEP, 2006), and
- Other ecological risk assessment best management practices.

The objective of the Stage I ES is to identify and document conditions which do not warrant a Stage II ERC, either because of the absence of a potentially significant exposure pathway or because environmental harm is readily apparent and therefore additional assessment would be redundant.

Following a Stage I ES, it may be concluded that:

1. A Stage II ERC is not required because there are no complete exposure pathways that could result in potentially significant exposures, and a condition of No Significant Risk of harm to Site biota and habitats clearly exists.

2. A Stage II ERC is not required because, for each contaminated medium, harm is readily apparent; therefore, a condition of No Significant Risk of harm to the Site biota and habitats clearly does not exist, and a Stage II Environmental Risk Characterization would be redundant.

3. A Stage II ERC is required because, for one or more contaminated media, there is not enough information to determine whether or not a condition of No Significant Risk of harm exists, and therefore those media are considered to present "potentially significant exposures."

If potentially significant exposures exist, the Stage II ERC can be used to guide further response actions.

3.0 SITE DESCRIPTION AND HISTORY

The following sections summarize the facility operating history, release history, previous investigation, previous remedial response actions, and current conditions. More detailed information may be found in the Permanent Solution Statement to which this ERC is attached and to previous MCP submittals for the Site. Current Disposal Site Boundary is shown in **Figure 2.**

3.1 OPERATING HISTORY

The facility, originally owned by Charles Thibeau, manufactured printed circuit boards beginning in 1958. Operations began in a one-story building located on the western portion of the property (the 'original building') and were later moved in 1965 to a new building (the 'main building') constructed east of the original building. A farmhouse located west of the original building reportedly was used for office and storage space. In 1965, the property and operations were purchased by Conductorlab, Inc. After subsequent acquisitions in 1972, 1982, and 1983, the facility ceased operations in 1985.

The manufacturing process involved photoengraving, etching (including the use of chromic acid and chlorinated solvents), metal plating (including the use of copper, lead, tin, nickel and gold), and assembly and inspection of the circuit boards. Fresh solvent and paint were stored in aboveground storage tanks (ASTs) and 55-gallon drums outside and adjacent to the buildings. Chemical and process wastes generated between 1958 and 1965 were recycled, discharged to a leach bed west of the original building, and/or discharged to the Unnamed Brook adjacent to the northern property boundary. Two neutralization-settling tanks were installed in 1965 for the treatment of chromic acid and process rinse water prior to discharge to subsurface chemical leaching beds located north of the main building. A wastewater treatment (WWT) facility constructed along the east side of the main building operated from 1975 through 1985. The WWT facility treated process rinse water prior to discharge to the

Unnamed Brook under a National Pollution Discharge Elimination System (NPDES) permit.

Chemicals used in the manufacturing operations were stored in aboveground storage tanks (ASTs) and 55-gallon drums located outside and adjacent to the buildings. The drum storage was located adjacent to the southeast side of the original building; along the southwest side of the main building; along the northeast corner of the main building; and southeast of the WWT facility. Fresh and spent solvent was stored in ASTs that were located south of the original building and along the north side of the main building.

The farmhouse was razed in 1988 and the main building was razed in 1989. The original building was demolished in October 2007.

3.2 RELEASE HISTORY

OHM from Site operations were released to soil, groundwater, and the Unnamed Brook. Sources included various leach beds, subsurface piping, loading/storage areas, and accidental spills such as residuals from an 800-gallon chromic acid AST that ruptured in 1968 onto the surrounding soil and into the basement of the former farmhouse (Parsons, 2005).

3.3 PREVIOUS SITE INVESTIGATIONS AND RESPONSE ACTIONS

Site investigation activities began in 1986 to characterize OHM in soil, groundwater, surface water, and sediment. These investigations have been detailed in documents previously submitted to MassDEP. OHM originated from manufacturing and treatment processes. Soil, groundwater, surface water, and sediment have been investigated within the Disposal Site. Concentrations of several VOCs and metals, more predominantly TCE, chromium, and hexavalent chromium were detected in the groundwater and soil above applicable soil and groundwater standards and UCLs.

Response actions at the Disposal Site have included: groundwater quality monitoring both on- and off-Property; decontamination and demolition of the former

manufacturing building (1989); removal of subsurface concrete vaults from the former wastewater treatment system and neutralization area (1992); removal from the Property of approximately 1,274 tons waste materials including source soils impacted by past manufacturing activities and construction debris; installation and operation of a pilot-study groundwater pump and treatment system (1989) that was expanded to a full-scale system in 1993 (and discontinued in 2012); and in-situ remediation that included chemical oxidation (2009) and chemical reduction (2015). The groundwater treatment system building was removed in 2017. Zero valent iron (ZVI) injections into the shallow aquifer were performed in 2019 and 2020 and had a specific remedial objective for surface water in the Unnamed Brook. On February 2, 1996, a temporary Class C Response Action Outcome (RAO) was filed for the Site. Operations and maintenance activities have been conducted at the Site in accordance with the Operations, Maintenance and Monitoring Plan (Earth Tech, 1995), which has been updated in subsequent five-year periodic reviews.

3.3.1 GROUNDWATER

A groundwater capture and treatment system operated at the Site for approximately 15 years, providing hydraulic control and removing subsurface contaminants.

Even while the groundwater treatment system was in place, technologies that could more effectively advance the Site to closure were actively pursued. On June 18, 2009, MACTEC Engineering and Consulting, Inc. (now WSP) submitted a Phase III Remedial Action Plan (RAP), which described the information, reasoning, and data used to identify, evaluate, and select a remedial action alternative. The outcome of the Phase III RAP resulted in the Phase IV Remedial Implementation Plan (RIP) which selected in-situ chemical oxidation (ISCO) to treat TCE and its daughter breakdown products cis-1,2-dichloroethene (DCE), trans-1,2-DCE, and vinyl chloride in terrestrial source areas and in groundwater. ISCO treatments occurred near monitoring well locations CLW-8 and PP-3 and adjacent to surface water sampling locations CSW-3 and CSW-3A **(Figure 2**).

ISCO treatments for TCE had the potential to convert trivalent chromium in soil to the more soluble and therefore mobile hexavalent chromium. Groundwater and surface water monitoring conducted after ISCO treatments revealed that concentrations of chlorinated solvents in groundwater and in Unnamed Brook surface water were effectively addressed but confirmed that chromium had in fact been mobilized and fugitive hexavalent chromium was being transported through groundwater and was discharging into the Unnamed Brook. In 2015, it was determined that ISCR treatment was necessary to convert hexavalent chromium back into less mobile trivalent chromium, thereby improving the quality of groundwater and Unnamed Brook surface water. Together, the objective for ISCO, ISCR, and ZVI treatments was to achieve concentrations of OHM in groundwater below the MassDEP upper concentration limit (UCL).

Amec Foster Wheeler (formerly MACTEC and now WSP) submitted a Phase IV RIP Amendment to MassDEP dated November 2015, and ISCR remediation was completed in January 2016. In 2021, groundwater and surface water monitoring data indicated that the ZVI treatment was effective at further decreasing chromium and hexavalent chromium concentrations in groundwater to below GW-3 standards and seemed to improve the hexavalent chromium results in surface water. Numerous rounds of quarterly groundwater and surface monitoring conducted since January 2016 have demonstrated that conditions in groundwater and surface water in the Unnamed Brook have steadily improved.

3.3.2 SOIL

A Release Abatement Measure (RAM) was performed in 2007 in which soil contaminated with xylene and PAHs above Method 1 S-2 standards were removed from the Site. Some soil containing concentrations of chromium and lead above the lowest Method 1 standards were also removed from an approximately 5,000-square foot area.

3.4 CURRENT DISPOSAL SITE BOUNDARIES AND OHM

Following the completion of the final ISCR treatment in January 2016, OHM in surface water and sediment in the Unnamed Brook and in groundwater between the stream and former source areas have been re-characterized through numerous rounds of quarterly monitoring.

After several phases of investigation and completion of remediation activities, Disposal Site boundaries and Site-related OHM have been well defined. The primary detected OHM for surface water, sediment, and groundwater presently include:

- TCE and daughter projects from solvents at the former facility, and
- Chromium and hexavalent chromium (naturally occurring and from chromic acid used at the former facility) mobilized as a result of ISCO treatment.

Other analytes detected in sediment, groundwater and surface water are generally detected at such low frequencies and/or low concentrations such that their presence is unlikely to be linked to historical site-related activities (see **Section 5.5.2** and **Section 7.1.2** for further discussion). Detected OHM in soil samples include chlorinated and fuel-related volatiles, metals, semi-volatiles including PAHs, BEHP, and dibenzofuran (all low frequency of detection), the three extractable hydrocarbon fractions and two volatile petroleum hydrocarbon fractions.

The current Disposal Site Boundary includes on-Property soil, on- and off-Property groundwater, and on- and off-Property portions of the Unnamed Brook (**Figure 2**). Review of Site soil data indicates soil impacts are limited to the front portion of the Conductorlab Property; there are not off-Property soil impacts.

Disposal site boundaries downgradient of the Property are defined by groundwater. Impacted groundwater is several feet below the ground surface and does not discharge into the vegetated wetland that borders the Unnamed Brook south of Main Street. The Disposal Site Boundary with respect to surface water and sediment ends before the Unnamed Brook discharges to Gratuity Brook.

4.0 ENVIRONMENTAL SETTING

The Conductorlab property is 3.2 acres. The area surrounding the Conductorlab property is a mixture of commercial, industrial, and residentially zoned properties. The northwestern property boundary is formed by the Unnamed Brook. On the far side of the Unnamed Brook is a residence which is also home to the Old Fashioned Milk Paint Company (**Figure 2**), an artisanal milk paint producer. The milk paint producer also owns the 1.3-acre wooded parcel which abuts the Conductorlab property partially to the north and to the east. Insco Corporation, a gear manufacturing facility, is located to the south of the Conductorlab property.

4.1 TERRESTRIAL HABITAT

The eastern portion of the Conductorlab property, an undeveloped 1-acre woodland, supports mixed forest vegetation including white pine (*Pinus strobus*), oak (*Quercus* sp.), birch (*Betula* sp.), and red maple (*Acer rubrum*) trees; shrubs including viburnum (*Viburnum* sp.), and greenbrier (*smilax rotundifolia*), and unidentified ground cover. Approximately 0.3 acres of the property predominantly in the western portion of the property consists of paved, impervious surfaces. The remainder of the property, comprised of the formerly developed areas of the property and locations remediated during the 2007 RAM, is populated with poison ivy (*Toxicodendron radicans*), goldenrod (*Solidago canadensis*), aster (*Aster* sp.), and invasive species such as common mullen (*Verbascum thapsus*), and miscellaneous grasses growing in poor quality habitat.

While the Conductorlab property is 3.2 acres in area, the terrestrial portion of the Disposal Site is limited to a portion of the western half of the property, and thus less than 1.6 acres in area. Part of the Disposal Site includes a paved area which is currently in a state of disrepair and plants have begun to grow through the expanding cracks.

4.2 AQUATIC HABITAT

Observations of the Unnamed Brook indicate that it is an ephemeral waterbody, with flowing water in wet winter and spring months, but during summer and early autumn it may lack standing water in most of its channel. The Unnamed Brook has not been mapped on the United States Geological Survey (USGS) topographical map (**Figure 1**), providing additional evidence of its intermittent nature. **Appendix A** provides photos of the Unnamed Brook.

The Unnamed Brook originates upstream of the Conductorlab property (**Figure 2**), where it flows westerly for approximately 2,000 feet along an agricultural field to the north and two residential properties and an undeveloped woodland to the south. Within this stretch, the land along the last 150 feet of the northern bank provides outdoor material storage for the artisanal milk paint producer. Over this 2,000-foot distance the channel measures approximately 3 feet wide. The Unnamed Brook then passes through an approximately 12-inch PVC culvert running below an unpaved driveway for approximately 8 feet. After emerging from the first culvert the stream runs approximately 225 feet through a 4- to 5-foot-wide stream channel. The stream then passes through a second similar PVC culvert below another unpaved driveway and immediately connects into a 24-inch diameter underground concrete pipe for approximately 225 feet before emptying into an approximately 6-to-8-foot diameter open basin adjacent to Main Street (sampling location CSW/CSD-3). The open basin lies approximately 7 feet below street level and its walls are supported by a concrete retaining wall. Water discharging from the end of the 24-inch diameter underground concrete pipe falls approximately 2 to 3 feet in elevation to the water surface in the open basin. The open basin also receives stormwater runoff from two catch basins located on Main Street. Unnamed Brook The substrate of the Unnamed Brook upstream of the underground concrete culvert is comprised primarily of mineral sand in the upstream sections. The presence of gravel and cobbles increases with distance downstream of the first culvert coinciding with a steepening grade until the brook enters the underground concrete pipe. Substrate in the open basin is primarily gravel and large cobbles. Between the background sampling locations and open basin, total

organic carbon (TOC) from decaying leaves and detritus was measured approximately 1%.

From the open basin, the Unnamed Brook then flows southward through a third (box) culvert under Main Street and turns southwest into a wetland mapped by the National Wetlands Inventory (NWI) as a freshwater forested/shrub wetland (NWI, 2019) with classification code PFO1E (**Figure 3**), where:

- **Palustrine (P)**: The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 parts per thousand (ppt). It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.
- **Forested (FO)**: Characterized by woody vegetation that is 6 meters tall or taller.
- **Broad-Leaved Deciduous (1)**: Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season, e.g., black ash (Fraxinus nigra).
- **Seasonally Flooded/Saturated (E)**: Surface water is present for extended periods (generally for more than a month) during the growing season but is absent by the end of the season in most years. When surface water is absent, the substrate typically remains saturated at or near the surface.

This wetland is characterized by a braided channel stream channel within the wetland. The Unnamed Brook flows through this wetland area for approximately 600 feet, and ultimately drains through a fourth culvert under Mill Road for another approximately 1,000 feet to the confluence with Gratuity Brook. Gratuity Brook

eventually discharges to the Nashua River, located approximately 6,000 feet west of the Conductorlab property. Channel substrate south of Main Street is a mineral mix of sand, gravel, and cobbles becoming predominantly sandy and organic as it passes through the forested shrub wetland. By the time the channel reaches the Mill Road, TOC from decaying leaves and detritus was measured at above 3%. Oil, tar, or other non-aqueous phase hazardous material (including flocculent) have not been observed within one foot of the sediment surface. The most downstream sampling location, CSW-12 is located in the Unnamed Brook at the confluence of Gratuity Brook and is not impacted.

Water level data collected during quarterly monitoring events indicates that groundwater at the PFO1E wetland occurs approximately 6 feet below the ground surface, indicating that the source of surface water for the wetland comes predominantly from atmospheric precipitation and surface runoff.

When standing water is present, freshwater snails and pollution sensitive stoneflies (Plecoptera) and caddisflies (Trichoptera) have been observed in the Unnamed Brook, especially in the open basin and in the stream channel downstream of the Main Street culvert. Stoneflies and caddisflies are generally considered indicators of good water quality (Hilsenhoff, 1981; Lenat, 1988). A 6-inch-long crayfish was found below a rock outcrop in two separate annual field events and tadpoles (tentatively identified as American toad [*Bufo americanus*] by their small size and dark color) were observed in the open basin in July 2018. Fish have never been observed in any portion of the Unnamed Brook, which is not surprising considering the stream's ephemeral nature. Raccoon prints have been observed in channel mud when water levels are low. During wet periods, water in the stream channel has been measured as deep as 8 to 12 inches, and up to 2.5 feet deep in the open basin. Stressed biota, including fish kills or abiotic conditions, have not been reported in the Unnamed Brook.

The Unnamed Brook is fed in part by groundwater, including groundwater from the Site, as well as by surface runoff from the abutting properties, paved surfaces (e.g., parking lots) and roadways (i.e., Main Street).

Considering the segmented and culverted condition of the Unnamed Brook, its intermittent nature, and the influence of stormwater runoff, the Unnamed Brook provides low quality habitat for aquatic life.

As discussed in **Section 4.3**, groundwater in the wetland bordering the Unnamed Brook downstream of Main Street ranges between 3 ft to 10 ft below ground surface (bgs). These water depths indicate that the wetland is fed by precipitation and surface runoff and that impacted groundwater is not discharged into the wetland.

4.3 GROUNDWATER

Typical groundwater flow is to the west. A regional groundwater contour plan for shallow/overburden wells is presented in **Figure 4a,** and **Figure 4b** presents the regional groundwater contour plan for bedrock wells. Under periods of heavy rainfall, depth to groundwater in monitoring wells is greater than 3 ft below ground surface (bgs). This depth to groundwater indicates that the wetland is fed by precipitation and surface runoff and that impacted groundwater is not discharged into the wetland.

4.4 ACEC AND PRIORITY HABITAT

The MassDEP Bureau of Waste Site Cleanup Phase 1 Site Assessment Map (**Figure 5**) indicates that the Site falls within an Area of Critical Environmental Concern (ACEC). The Petapawag ACEC, established in 2002, measures approximately 25,630 acres in area, with 58% (12,950 acres) falling within the municipality of Groton and encompassing the terrestrial and wetland portions of the Conductorlab site

.

5.0 STAGE I ES

A Method 3 Environmental Risk Characterization (310 CMR 40.0995) consists of two phases: a Stage I ES and a Stage II ERC. A Stage I ES is used to document the clear absence or presence of potentially significant existing or future exposure pathways, and frequently relies on comparisons of detected concentrations to conservative screening benchmarks. If risks from complete exposure pathways can be shown to be not significant, then the more detailed Stage II ERC is not required.

This Updated Stage I ES therefore identifies complete exposure pathways (**Section 5.1**), summarizes data used in the Updated Stage I ES (**Section 5.2**), discusses whether or not harm is readily apparent (**Section 5.3**), discusses local conditions (**Section 5.4**), and performs an effects-based screening (**Section 5.5**). Conclusions of the Stage I ES are presented in **Section 5.6**.

5.1 COMPLETE EXPOSURE PATHWAYS

Complete exposure pathways for surface water and sediment, and soil are discussed below.

5.1.1 SURFACE WATER AND SEDIMENT

Considering the presence of aquatic and benthic species observed during previous Site investigations, and considering that OHM have been detected in surface water and sediment of the Unnamed Brook, exposure pathways are potentially complete for surface water and sediment of the stream.

5.1.2 SOIL

Exposure pathways for terrestrial plants, invertebrates, birds, and mammals may be potentially complete but are considered "not significant" if all the following criteria listed in Section 9.5.2.1 of the *Guidance for Disposal Site Risk Characterization in Support of the MCP* (MassDEP, 1996) are met:

- The undeveloped terrestrial portion of the affected area (Disposal Site) terrestrial soil is less than 2 acres. Undeveloped land means open land that is characterized by the presence of native vegetation and does not include landscaped residential, commercial, parks, or golf courses.
- State-listed threatened or endangered species or other species of concern have not been reported in the project vicinity, and
- ACEC is not present.

The undeveloped terrestrial portion of the disposal is confined to the western portion of disposal Site the property and is less than 1.6 acres, and as shown in **Figure 5** state-protected species are not present in the Site vicinity. However, as also shown in **Figure 5**, the Site falls within ACEC.

Because surface soil within the Disposal Site lies within the Petapawag ACEC and transport of OHM is possible, a Stage II ERC should be conducted. Therefore, the assessment of soils is not included in the remainder of the Stage I ES steps and is instead fully assessed in **Section 7.0** in a Stage II ERC.

5.1.3 GROUNDWATER

Groundwater is not considered a complete exposure pathway and is not evaluated as part of the Stage I ES. Groundwater occurs deeper than 3 ft below ground surface. This depth to groundwater indicates that downgradient wetlands are fed by precipitation and surface runoff and that impacted groundwater is not discharged into the wetlands. Also, groundwater occurs deeper than the zone of biological activity for plants and soil invertebrates. Groundwater is not directly accessible to wildlife such as birds and mammals. Where groundwater is expressed at the surface, it is evaluated as surface water in the Unnamed Brook.

5.2 DATA USED IN THE UPDATED STAGE I ES

This Updated Stage I ES assesses OHM in surface water and sediment under current conditions, i.e., after ISCO treatments to remediate groundwater solvent plumes,

after subsequent ISCR treatments to control chromium mobilized by the ISCO treatment, and after ZVI treatments. As stated in **Section 3.0**, following completion of the final ISCR treatment in January 2016, OHM in surface water and sediment in the Unnamed Brook and in groundwater between the stream and former sources have been monitored on a quarterly basis beginning in December 2016. Surface water and sediment data collected before these treatments were completed have been excluded from this ERC because they no longer characterize current exposure conditions, though older data from upstream sampling locations were used because they were unaffected by ISCO and ISCR treatments. Full data summaries of Site-related OHM from these sample rounds are provided in **Appendix B** (surface water) and **Appendix C** (sediment).[1]

The rounds of Site surface water and sediment data used in this Updated ERC are shown in **Table 1.** Surface water monitoring data collected from April 2016 through 2021 are considered in the ERC.

5.2.1 SURFACE WATER

The surface water data set from the Unnamed Brook includes two background locations (CSW-BGK001 and CSW-BKG002) in the Unnamed Brook upstream of the Disposal Site and adjacent to the upstream agricultural field that were sampled over a period of 6 monitoring events from 2011 to 2014; CSW-BKG001 was also sampled in July 2018 (**Figure 2**).

Surface water samples were also collected at CSW-1 which was originally established to delineate and monitor the nature and extent of the most upgradient releases to the Unnamed Brook. However, eleven monitoring events conducted at CSW-1 from 2007

[1] Analytes such as SVOCs (including PAHs), pesticides, and some metals were analyzed in sediment to identify possible non-site related interferants for future toxicity tests (if needed) and are summarized for informational purposes only.

through 2013 demonstrated that CSW-1 was not affected by releases from the Site and thus regular monitoring was discontinued. CSW-1 is now considered to be representative of upstream conditions.

On July 2, 2018, surface water analytical chemistry and toxicity samples (discussed in **Section 6.2**) were specifically collected to characterize conditions during peak summer (*i.e.*, base flow) conditions. June and early July 2018 were extremely dry with negligible rainfall recorded in the Groton, MA area (Weather Underground, 2018). Under base flow conditions, the Unnamed Brook along the northern Property boundary is fed mostly if not entirely by shallow groundwater and should represent a 'worst case' exposure to fugitive chromium from the Site. Samples were collected from three Site locations (CSW-3, CSW-3A, and CSW-5) and from one upstream location (CSW-BKG001). Samples were collected in a downstream-to-upstream direction to avoid cross contamination from OHM being carried downstream following disturbance of the stream during sampling. Location CSW-2 and CSW-4 were dry and could not be sampled for surface water; in fact, approximately 80% of the channel between CSW-3A and CSW-5 was dry. Location CSW-1 held approximately 2 inches of standing water in the early morning when the field sampling crew arrived, but by the time the field sampling crew worked its way upstream to that location in early afternoon, evapotranspiration from shoreline plants and trees in the adjacent woods had depressed the water table such that standing water was no longer present, thus CSW-1 could not be sampled. These surface water samples were analyzed by TestAmerica.

5.2.2 SEDIMENT

One round of sediment data, collected on July 2, 2018, is evaluated in this Updated Stage I ES. These sediment samples were collected at five locations (CSD-BKG001, CSD-1, CSD-3, CSD-3A, and CSD-5)[2] co-located with surface water sample locations

[2] Though standing water was not present at CSW-1, the substrate was still wet so a co-located sediment sample (CSD-1) was collected. Substrate at CSD-2 and CSD-4 was dry and so was not sampled.

described above (**Figure 2**). These samples were analyzed by TestAmerica. As with its paired surface water location (CSW-1), CSD-1 was deemed to represent upstream conditions. Previous rounds of sediment data from these five sample locations dating to 2007 and earlier no longer characterize current exposure conditions because they represent conditions before ISCO and ISCR treatments were completed.

These 2018 data are supplemented by three samples collected in 2005 (CSW-7, CSW-12) and 2007 (CSW-12), which are the only sediment samples collected between Mill Street and Gratuity Brook. While they predate ISCO and ISCR treatments, they are included because they establish the downstream disposal site boundary with respect to sediment.

5.3 EVALUATION OF READILY APPARENT HARM

The MCP (310 CMR 40.0095(3)(b)(1) identifies three conditions that constitute 'readily apparent harm':

a. Visual evidence of stressed biota attributable to the release at the disposal site, including, without limitation, fish kills or abiotic conditions.

b. The existence of oil and/or hazardous material attributable to the disposal site in concentrations which exceed Massachusetts Surface Water Standards promulgated in *314 CMR 4.00: Massachusetts Surface Water Quality Standards*, which include USEPA Ambient Water Quality Criteria (AWQC) applied pursuant to 314 CMR 4.05(5)(e).

c. Visible presence of oil, tar, or other non-aqueous phase hazardous material in soil within three feet of the ground surface over an area equal to or greater than two acres, or over an area equal to or greater than 1,000 square feet in sediment within one foot of the sediment surface.

Stressed biota, including fish kills or abiotic conditions have not been reported in the Unnamed Brook, and oil, tar, or other non-aqueous phase hazardous material

(including flocculent) have not been observed within one foot of the sediment surface (see **Section 4.2**).

Following the ISCO treatment in January 2016, concentrations of chromium in surface water have been seasonally above acute and chronic Massachusetts Surface Water Quality Standards (SWQS) at CSW-3 and CSW-3A. Hexavalent chromium at these locations has been detected in concentrations as high as 880 ug/L, compared to a chronic Massachusetts SWQS surface water quality standard of 11ug/L and acute standard of 16 ug/L. Total chromium (i.e., the sum of all species of chromium) has been detected as high as 830 ug/L compared to a chronic Massachusetts SWQS of 74 ug/L and acute standard of 570 ug/L. ISCR treatment was used to address the condition of readily apparent harm that was present in the Unnamed Brook following ISCO.

Following completion of the ISCR treatment, concentrations of total chromium and hexavalent chromium have fallen to much lower levels. In fact, over the last four sampling rounds, total chromium concentrations are now detected below the Massachusetts SWQS such that a condition of readily apparent harm no longer exists for Unnamed Brook surface water **(Figure 7)**.

In the last four sampling rounds, hexavalent chromium has been detected at concentrations less than the Massachusetts SWQS (11 ug/L) at all surface water locations except CSW-3 and CSW-3A. At CSW-3 and CSW-3A, hexavalent chromium was detected at concentrations less than the Massachusetts SWQS in April 2021 but greater than the Massachusetts SWQS in December 2020, June 2021, and September 2021.

As stated in Section 9.3.1 of the *Guidance for Disposal Site Risk Characterization in Support of the MCP* (MassDEP 1996), "if harm is readily apparent, a full quantitative risk characterization may not be necessary." However, for this site:

- a Stage I Screening is still needed to document a condition of no significant risk of harm for Unnamed Brook sediment, and

- Historical conditions which resulted in readily apparent harm are no longer present for total chromium now that ISCR has been completed, and hexavalent chromium occurs at concentrations greater than the Massachusetts SWQS in a very limited area defined by CSW-3 and CSW-3A and for only part of the year. A Stage II ERC is necessary to assess risks under these improved, current conditions. A Stage II ERC also provides the means to document the development of a Site-specific water quality benchmark for hexavalent chromium and to evaluate whether actions have lowered OHM concentrations in the Unnamed Brook to below Site-specific benchmarks.

Therefore, surface water and sediment will be carried through the Updated Stage I and Stage II ERC, as necessary.

5.4 LOCAL CONDITIONS

As described in **Section 5.2.1**, upstream concentrations have been characterized at three surface water locations (CSW-BKG001, CSW-BKG002, and CSW-1), and two sediment locations (CSD-BKG001 and CSD-1). However, a local conditions assessment has not been performed, and local conditions are not used to demonstrate a condition of No Significant Risk.

5.5 EFFECTS-BASED SCREENING

In this section, complete surface water and sediment exposure pathways are evaluated to determine whether the exposures are significant. If significant exposures are determined to be unlikely for any pathway, that pathway can be eliminated from further consideration in the risk assessment.

Screening criteria are used to rule out pathways, not individual chemicals. If a pathway is not ruled out, risks from all chemicals that result in exposure by that pathway should be further evaluated, even if some of the chemicals are present at levels below their screening criteria.

The effects-based screening was conducted by comparing the maximum detected concentration of Site-related compounds in surface water and sediment to corresponding ecological screening benchmarks.

Screening benchmarks are discussed in **Section 5.5.1** and the benchmark comparison is presented in **Section 5.5.2**.

5.5.1 ECOLOGICAL SCREENING BENCHMARKS

Screening benchmarks were identified only for Site-related compounds, as described below by medium.

5.5.1.1 Surface Water

Ecological screening benchmarks for surface water **(Table 2)** were selected from the following sources in the order of preference:

1. USEPA freshwater chronic AWQCs (USEPA, 2022), which Massachusetts adopts as state surface water quality standards in 314 CMR 4.05(5)(e).

2. USEPA Region 4 Freshwater Chronic Ecological Screening Values (USEPA, 2018)

The screening benchmarks for chromium are expressed in terms of dissolved fraction. These ecological screening benchmarks for surface water are considered to be NOECs below which adverse effects to the aquatic community are not expected to occur.

5.5.1.2 Sediment

Ecological screening benchmarks for sediment (**Table 3**) were selected from the following sources presented in order of preference:

1. MassDEP 2006 Interim Technical Updates (MassDEP, 2006)
2. USEPA Region 4 Freshwater Sediment Ecological Screening Values (USEPA, 2018)

5.5.2 BENCHMARK COMPARISON

Site data are compared to screening benchmarks, as discussed below, by medium.

5.5.2.1 Surface Water

Table 4 compares concentrations of Site-related analytes (TCE, daughter products, chromium) detected in surface water since January 2016 (when the last ISCO and ISCR treatments were completed) to ecological screening benchmarks. These data also include those collected after ZVI was conducted in 2019 and completed in June 2020. Note that in **Table 4**, duplicate samples were treated as individual samples.

Maximum concentrations of TCE (90 ug/L) and cis-1,2-DCE (5.9 ug/L), were detected below ecological screening benchmarks **(Table 4)**. Neither trans-1,2-DCE nor vinyl chloride were detected in any of the 92 surface water samples; reporting levels for both (1 ug/L) were below respective screening benchmarks (558 ug/L for trans-1,2-DCE; 930 ug/L for vinyl chloride).

Concentrations of hexavalent chromium were detected above the ecological screening benchmark **(Table 4)**. Surface water exposures will be carried to a Stage II ERC.

As shown in **Appendix B Table B-1**, hexavalent chromium accounts for almost all forms of chromium detected in the Unnamed Brook. Trivalent chromium appears to be largely absent from the Unnamed Brook. **Appendix B** also includes **Table B-2** which provides a summary of surface water analytical data collected since January 2016, including non-Site-related analytes. These data are compared to ecological surface water screening benchmarks in **Table B-3**. This comparison is provided to supplement the Stage I ES for surface water (**Table 4**) and demonstrate that historical decisions to focus on chlorinated VOCs and chromium are still valid.

5.5.2.2 Sediment

Table 5 compares concentrations of Site-related analytes (TCE, daughter products, chromium) detected in sediment to conservative ecological screening benchmarks. Analytes such as SVOCs (including PAHs), pesticides, and non-site related metals were analyzed in sediment to identify possible non-Site related interferants for future toxicity tests (if needed) but were not screened because they are not Site-related OHM. **Appendix C** provides ecological screening benchmarks for all detected analytes. Since these additional analytes occur at concentrations below sediment screening benchmarks, the comparison demonstrates that historical decisions to focused on chlorinated VOCs and chromium are still valid.

TCE was the only Site-related volatile organic compound (VOC) detected in sediment **(Table 5)**. The maximum detected TCE concentration (4.2 ug/kg) was below the ecological sediment screening benchmark (78 ug/kg). None of TCE's daughter breakdown products were detected, and reporting limits were below respective ecological screening benchmarks indicating that detection limits are suitable for ecological risk assessment.

Chromium in sediment essentially takes the trivalent form **(Table 5)**; hexavalent chromium was undetected in six of seven samples (<0.79 mg/kg) and estimated (i.e., J qualified) in one sample 0.32 J mg/kg). Total chromium is at or below the MassDEP screening value (110 mg/kg) at CSW-BKG001, CSD-1, CSD-3, CSD-3A, and CSW-

12. Total chromium at CSD-5 (170 mg/kg) and CSW-7 (156 mg/kg) is nominally above the MassDEP screening value.

Under a very strict application of the Stage I ES process, a Stage II ERC is necessary when at least one chemical in a given medium is above screening benchmarks. Technically, this condition occurs for chromium in CSD-5 and CSW-7 sediment. However, with minor refinement of the exposure assumptions and using existing data, a Stage II Environmental Risk Characterization would develop additional lines of evidence that demonstrate that a condition of No Significant Risk to the environment exists.

For example, considering that CSD-5 is located adjacent to Mill Road, roadway runoff might also be a contributing source; chromium is a well-documented constituent of road runoff (*e.g.,* Sansalone et al., 1996; Kayhanian et al., 2012). Furthermore, the total organic carbon (TOC) content of 3.4% at CSD-5 indicates chromium may be bound up sediment organic carbon and is not bioavailable. Also, the presence of pollution tolerant benthic invertebrates (e.g., stoneflies and caddisflies), especially those present downstream of the Main Street culvert crossing (**Section 4.2**) provides additional empirical, qualitative evidence that OHM in sediment does not adversely affect the benthic community. When sediment at CSD-5 was sampled, much of the Unnamed Brook between Main Street and Mill Road was dry (**Section 5.2.1**) indicating transport pathways from the Site to CSD-5 are frequently incomplete so that chromium at CSD-5 is not related to the Site. The chromium concentrations at CSW-7 predates the ISCO/ISCR treatments, may no longer represent current exposure conditions, and may also be bound by TOC. A Stage II ERC would also refine the exposure point concentration by using an estimate of the mean chromium sediment concentration (e.g., the arithmetic mean concentration which is 84 mg/kg), which is below the screening value. Considering these lines of evidence, a Stage II ERC would find that Site-related chromium concentrations in sediment would result in an HQ<1 and do not pose a significant risk of harm to the benthic community.

5.6 STAGE I ES CONCLUSIONS

The Stage I ES found:

- Impacted surface soil is present within the Disposal Site and may be a source for transport of OHM to the Petapawag ACEC; therefore, potential soil exposures must be evaluated in a Stage II ERC.
- A condition of No Significant Risk exists for sediment because maximum exposure concentrations of VOCs and hexavalent chromium are less than or equal to ecological sediment screening benchmarks. A Stage II ERC would find that concentrations of total chromium in sediment also do not pose significant risk to the sediment community.
- Historical concentrations of total chromium and hexavalent chromium resulted in a condition where harm to surface water was readily apparent. This condition was addressed by ISCR to reverse the liberation of chromium resulting from ISCO. A Stage II ERC is necessary to assess risks under the improved, current conditions.

A Stage II ERC for the Unnamed Brook surface water is provided in **Section 6.0**. A Stage II ERC for impacted surface soil within the Disposal Site is provided in **Section 7.0**.

6.0 STAGE II ERC – UNNAMED BROOK SURFACE WATER

The purpose of this Stage II ERC is to assess risks to the aquatic community in the Unnamed Brook from hexavalent chromium in surface water.

6.1 PROBLEM FORMULATION

As previously described, ISCO treatments for TCE oxidized both Site-related and naturally occurring trivalent chromium in soil and groundwater to more mobile hexavalent chromium. Fugitive hexavalent chromium was transported through groundwater and discharged into the Unnamed Brook. In 2015, it was determined that ISCR treatment was necessary to convert hexavalent chromium back into less mobile trivalent chromium and to thereby improve the quality of groundwater and Unnamed Brook surface water. ISCR helped to diminish hexavalent chromium concentrations in groundwater. The ZVI treatment was also effective at further decreasing hexavalent chromium concentrations in surface water. Surface water concentrations have stabilized but are still above ecological screening benchmarks as shown in the Stage I ES (**Section 5.0**). As shown in **Appendix B**, dissolved hexavalent chromium accounts for almost all the total chromium detected in surface water and so is the focus of this Stage II ERC.

However, as concentrations of TCE and its daughter breakdown products are well below conservative NOEC ecological screening benchmarks, there is no evidence of harm[3] to the aquatic community from exposures to VOCs in Unnamed Brook surface

[3] See Section 9.5.3.5 of the Guidance for Disposal Site Risk Characterization in Support of the MCP (MassDEP, 1996).

water. The Stage II ERC will therefore focus only on exposures to chromium in surface water.

Some elements of the problem formulation have been previously presented including the environmental setting of the Unnamed Brook and receptors (**Section 4.2**), and description of the delineation and current extent Disposal Site boundaries (**Section 3.4**). The remainder of the Problem Formulation is presented in the sections that follow.

6.1.1 COMPLETE EXPOSURE PATHWAYS

Considering the presence of an aquatic community in the Unnamed Brook, a complete exposure pathway may exist for surface water. Chromium may move from surface water into aquatic receptors through two major biological exposure mechanisms:

- Direct contact with chromium in surface water
- Incidental ingestion of chromium in surface water

6.1.2 ECOLOGICAL CONCEPTUAL SITE MODEL (CSM)

The ecological site conceptual model (**Figure 8**) illustrates initial estimates of contaminant fate and transport mechanisms, complete exposure pathways, and primary and secondary receptors.

This ecological CSM is based on the current understanding of disposal site conditions, serves as a framework for evaluating ecological exposure and risk, and shows:

- The source areas (i.e., historical release areas and potential non-Site related release areas);
- Transport mechanisms (processes that partition chemicals among various environmental media);
- Exposure media (those environmental media from which organisms may be exposed to chemicals); and

- Potential receptor organisms based on Site ecological investigations.

6.1.3 ASSESSMENT & MEASUREMENT ENDPOINTS

Endpoints in the Stage II ERC define ecological attributes that are to be protected (assessment endpoints) and a measurable characteristic of those attributes (measurement endpoints) that can be used to gauge the degree of impact that has occurred or may occur. The assessment and measurement endpoints for Unnamed Brook surface water are:

Assessment Endpoint	Measurement Endpoint
1. Survival, growth, and reproduction of the aquatic community	a. Compare measured concentrations of hexavalent chromium to Site-specific NOEC and LOEC benchmarks developed from toxicity tests conducted with *Ceriodpahnia dubia*.
	b. Qualitatively evaluate observations of aquatic species present in the exposure area.

6.2 ANALYSIS

The Stage I ES (**Section 5.0**) used conservative ecological screening benchmarks from MassDEP and USEPA references to identify potentially significant exposure pathways. Screening benchmarks are generally considered to provide threshold concentrations below which adverse effects are not likely to occur, i.e., NOECs. As described in section 9.4.3.2 the *Guidance for Disposal Site Risk Characterization in Support of the MCP* (MassDEP, 1996), low effects levels should also be used to estimate risks.[4] The LOEC is the concentration above which it is reasonable to conclude there is evidence of harm to the aquatic community.

[4] While Section 9.4.3.2 addresses the use of lowest-observed-adverse-effect-levels (LOAELs) and no-observed-adverse-effect-levels (NOAELs) for aquatic Stage II ERCs, these guidelines are also applicable to LOECs and NOECs in aquatic systems. A LOEC is the exposure concentration that results in the LOAEL dose.

The NOECs used in the Stage I ES are considered generic because they apply to a broad set of organisms and a wide range of exposure conditions. In the Stage II ERC, rather than using a NOEC and LOEC for hexavalent chromium obtained from the scientific literature, two rounds of surface water toxicity testing were conducted to develop a Site-specific NOEC (60 ug/L) and Site-specific LOEC (90 ug/L), as described below.

6.2.1 SURFACE WATER TOXICITY TESTS

Two rounds of surface water toxicity tests were conducted, as described below.

6.2.1.1 July 2018

As part of the July 2, 2018 sampling event, surface water samples were collected from three locations in the Unnamed Brook (CSW-3, CSW-3A, and CSW-5) for the purpose of evaluating the potential toxicity of surface water to aquatic invertebrates under base flow conditions, when surface water in the Unnamed Brook would be the most influenced by Site groundwater with little or no surface runoff component. Base flow conditions therefore represent a 'worst case' exposure scenario to hexavalent chromium (see **Section 5.2.1**). One sample (CSW-BKG001) was also collected from the upstream location. A surface water sample from location CSW-2 or CSW-4 could not be collected because these locations were dry. A sample from CSW-1 could not be collected because evapotranspiration had caused that location which had held standing water in the morning to dry up by the time the field team reached that location in early afternoon.

Surface water samples were sent to Enthalpy Analytical (formerly EnviroSystems) in Hampton, New Hampshire for three phases of toxicity testing. The initial phase subjected Site and upstream surface water samples to chronic 3 brood (7 or 8 day) *Ceriodaphnia dubia* tests for survival and reproduction (EnviroSystetms, 2018a) as outlined in *Short Term Methods for Estimating Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (USEPA, 2002).

The second phase of testing consisted of a serial dilution study for location CSW-3, which is the surface water location with the historically highest chromium concentrations (**Appendix B**). The purpose of the serial dilution was to determine a NOEC and a LOEC (EnviroSystems, 2018a).

The third phase of testing was to have been a toxic identification evaluation (TIE) study conducted using surface water collected from CSW-3 to determine if the toxicity observed in the previous two phases was attributable to chromium, or attributable to other chemicals associated with natural conditions, background, or other non-site sources. In a TIE, samples are manipulated to remove suspected toxic chemicals and then re-tested to determine if toxicity remains. If a specific effluent manipulation removes toxicity, then the researcher can deduce the toxic agent. However, the TIE could not be completed as one of the chelating resins used to remove chromium from solution was itself found to be extremely toxic to *Ceriodaphnia*, so the TIE test was not completed (EnviroSystems, 2018b).

The laboratory reports from the July 2018 toxicity testing program (EnviroSystems, 2018a,b) are provided in **Appendix D**.

6.2.1.2 April 2019

Two surface water samples were collected from CSW-3 (the surface water location with the historically highest chromium concentrations) in April 2019 to characterize potential toxicity to aquatic invertebrates under typical flow condition (*i.e.*, not summer base flow conditions) and thus represent more common exposure conditions. The samples were split between two laboratories. One sample was sent to EA Laboratories in Maryland ('Lab A'), and one sample was sent to Enthalpy Analytical ('Lab B'). Both labs followed the same testing protocol for the 3 brood *Ceriodpahnia dubia* test for survival and reproduction with serial dilution as performed for the July 2018 tests. Splitting the surface water samples between two laboratories was performed as a quality control to measure any intra-lab variability. The laboratory reports from the April 2019 toxicity testing program are provided in **Appendix E**.

6.2.2 DEVELOPMENT OF SITE-SPECIFIC EFFECTS BENCHMARK

Results of the toxicity tests were used to develop a Site-specific NOEC and LOEC screening benchmarks, as described below, by matching effects to measured concentrations of hexavalent chromium.

6.2.2.1 July 2018 Toxicity Testing

In the lab control sample of the initial phase of toxicity testing, survival (90%) and reproduction (28.7 ypf)[5] were within test acceptability criteria **(Table 6)** (EnviroSystems, 2018a). No statistically significant adverse effects to survival (100%) and growth (26.9 ypf) were reported in the upstream sample (CSW-BKG001) corresponding to a hexavalent chromium concentration of 5.6 ug/L. At the most downstream sampling location (CSW-5), survival was reported at 100% and reproduction at 26.9 ypf, corresponding to a hexavalent chromium concentration of 22 ug/L. There was no survival (0%) or reproduction (0.0 ypf) at CSW-3 (the open basin just upstream of Main Street). At CSW-3A, which is the running stream just downstream of the Main Street culvert, there were no statistically significant effects to survival (90%), but reproduction was near absent (2.7 ypf). Hexavalent chromium was measured at 240 ug/L at both CSW-3 and CSW-3A.

The serial dilution conducted on the sample from CSW-3 **(Table 7)** found a statistically significant effect to survival only at the undiluted (i.e., 100%) test level, and a statistically significant effect to reproduction at the 50% test level, indicating that reproduction is the more sensitive endpoint. The laboratory calculated a NOEC of 75% dilution (*i.e.*, 25% the full-strength sample) to be protective of reproduction. Considering that hexavalent chromium in sample CSW-3 was measured at 240 ug/L, this NOEC corresponds to a hexavalent chromium concentration of 60 ug/L (240 ug/L x 25%).

[5] ypf – young (juveniles) per female

The LOEC falls somewhere between the 25% test level where no statistically significant effects were observed and the 50% test level where statistically significant effects to reproduction were reported. Therefore, the LOEC for reproduction was calculated as the midpoint between the 25% and 50% dilution, *i.e.*, at 37.5% test level which corresponds to a hexavalent chromium concentration of 90 ug/L (240 ug/L x 37.5%) as summarized in **Exhibit 1**:

EXHIBIT 1. SITE-SPECIFIC NOEC AND LOEC FOR HEXAVALENT CHROMIUM - 2018

Effect Level	Abbreviation	Result (% of Undiluted Test Sample)	Corresponding Cr^{6+} Concentration
No-observed-effect-concentration	NOEC	25%	60 ug/L
Lowest-observed-effect-concentration	LOEC	37.5% (i.e., mid-point of 25% and 50% test level)	90 ug/L

Notes: Cr^{6+} - hexavalent chromium

6.2.2.2 2019 Toxicity Testing

The April 2019 toxicity sample from location CSW-3 administered by Lab A (EA Engineering, 2019) found 90% to 100% survival in the control sample and at all test concentrations after 3 broods, including the undiluted sample for which survival was reported at 100% **(Table 8)**. Reproduction, reported as mean young production (*i.e.*, young per female) in all test concentrations (28.2 ypf to 34.9 ypf) was equal to or better than the control (28.2 ypf), with the highest reproduction rate reported for the

undiluted (100%) sample. Sample results were not significantly different[6] from the laboratory control. As shown in **Exhibit 2**, Lab A determined the following effects concentrations, based on a concentration of 24 ug/L of hexavalent chromium detected in the corresponding CSW-3 analytical chemistry samples:

EXHIBIT 2. SITE-SPECIFIC NOEC AND LOEC FOR HEXAVALENT CHROMIUM - LAB A - 2019

Effect Level	Abbreviation	Result (% of Undiluted Test Sample)	Corresponding Cr^{6+} Concentration
No-observed-effect-concentration	NOEC	100%	24 ug/L
Lowest-observed-effect-concentration	LOEC	>100%	> 24 ug/L

Notes: Cr^{6+} - hexavalent chromium

The split sample sent to the second toxicity testing laboratory, Lab B, reported 100% survival in the control sample as well as in all test concentrations (Enthalpy, 2019). Reproduction in the test samples was found to follow a non-standard concentration-response curve with rates in Site samples (31.2 ypf to 36.6 ypf) lower than the laboratory control (38.8 ypf) with statistically significant effects to reproduction occurring in all but the 12.5% dilution. The identification of NOEC and LOEC values is severely compromised when the concentration-response relationship is

[6] Whether or not differences between laboratory control and sample dilutions were statistically significant was determined using ToxCalc or CETIS statistical software package following USEPA guidelines (USEPA, 2002). Both statistical packages are supported by the same developer, the main difference being that ToxCalc runs in Microsoft Excel, while CETIS runs in Microsoft Access.

nonmonotonic (USEPA, 2000). However, as explained in the laboratory report, unusually low variability in the control sample resulted in a higher likelihood that a significant response would be identified, *i.e.,* an oversensitive test that falsely reports significant effects. Lab B determined the following effects concentrations:

EXHIBIT 3. SITE-SPECIFIC NOEC AND LOEC FOR HEXAVALENT CHROMIUM - LAB B - 2019

Effect Level	Abbreviation	Result (% of Undiluted Test Sample)	Corresponding Cr^{6+} concentration
No-observed-effect-concentration	NOEC	75%	18 ug/L
Lowest-observed-effect-concentration	LOEC	>100%	> 24 ug/L [a]

Notes:

[a] The non-standard dose-response curve prevented calculation of a LOEC.

Cr^{6+} - hexavalent chromium

While both laboratories followed the same testing protocol guidance document, the differing responses between both tests illustrate variability in how the laboratories enact procedures or other lab conditions. However, results from both labs indicate that hexavalent chromium concentrations in the Unnamed Brook have no adverse effects on aquatic life under wet season conditions (*e*.g., LOECs occur at concentrations higher than what was measured in the undiluted sample). Analytic chemistry results from the April 2019 sample at CSW-3 show that the hexavalent chromium concentration in the undiluted sample (i.e., 100% test level) was 24 ug/L.

In order to derive a Site-specific NOEC for hexavalent chromium, the five NOECs available from the surface water toxicity tests were tabulated (**Exhibit 4**):

EXHIBIT 4. TABULATED HEXAVALENT CHROMIUM NOECS

Location	Date	NOEC	Notes
CSW-5	July 2018	22 ug/L	Assay
CSW-BKG001	July 2018	5.6 ug/L	Assay
CSW-3	**July 2018**	**60 ug/L**	**Serial dilution**
CSW-3	April 2019	24 ug/L	Serial dilution, Lab A
CSW-3	April 2019	18 ug/L	Serial dilution, Lab B

Notes: **Bold** – indicates the highest NOEC.

The weight of evidence indicates that at and below 60 ug/L, adverse effects to the aquatic community are not observed (*i.e.,* NOEC).

Site-specific LOECs are available from three surface water toxicity tests (**Exhibit 5**):

EXHIBIT 5. TABULATED HEXAVALENT CHROMIUM LOECS

Location	Date	LOEC	Notes
CSW-3	**July 2018**	**90 ug/L**	**Serial dilution**
CSW-3	April 2019	> 24 ug/L	Serial dilution, Lab A
CSW-3	April 2019	> 24 ug/L	Serial dilution, Lab B

Notes: **Bold** – indicates the highest LOEC.

The weight of evidence indicates that adverse effects to the aquatic community are possible (*i.e.,* LOEC) at or above 90 ug/L.

Both the site-specific NOEC and LOECs are greater than the Massachusetts SWQS for hexavalent chromium and indicate that the Massachusetts SWQS for hexavalent chromium is overly conservative for the Site.

6.2.3 OBSERVATIONS OF AQUATIC LIFE

Qualitative observations of aquatic life in the Unnamed Brook indicate a functioning aquatic ecosystem. As noted in **Section 4.2**, a 6-inch-long cray fish was observed living below a submerged rock outcrop in the open basin at CSW-3 in two separate years, indicating the sustained presence of a plentiful food supply unaffected by Site activities. Tadpoles tentatively identified as American toad were also identified in the open basin. Stoneflies and caddisflies, both considered pollution sensitive species (Hilsenhoff, 1981; Lenat, 1988), have been observed at multiple stream locations including at CSW-3A, and downstream locations when running water was present. These qualitative observations suggest that the Unnamed Brook aquatic community has not been significantly affected by Site releases.

6.3 RISK CHARACTERIZATION

As shown in the Stage I ES (**Section 5.0**), concentrations of analytes detected in sediment were at or below conservative ecological screening values. Therefore, a condition of No Significant Risk to the environment exists for the benthic community exposed to sediment.

Quarterly surface water monitoring demonstrates that concentrations of hexavalent chromium in the Unnamed Brook are above the generic chronic ecological screening value (11 ug/L), which is the AWQC and which has been adopted as the Massachusetts SWQS. Concentrations of hexavalent chromium in the Unnamed Brook are also above the USEPA AWQC acute continuous maximum criterion (CMC) of 16 ug/L. However, Site-specific survival and reproduction toxicity tests conducted in July 2018 and April 2019 with *Ceriodaphnia dubia* established a Site-specific NOEC for hexavalent chromium of 60 ug/L and a Site-specific LOEC of 90 ug/L. Site specific toxicity tests indicate that the Massachusetts SWQS is overly conservative for Site conditions.

As described in Section 9.5.3.5 of the *Guidance for Disposal Site Risk Characterization in Support of the MCP* (MassDEP, 1996)[7], when the Site concentration:

- exceeds the LOEC it is reasonable to conclude evidence of harm.
- is lower than the NOEC it is reasonable to conclude no evidence of harm.
- is between the NOEC and LOEC, no conclusion may be reached based on the predictive method alone and additional assessment efforts are necessary to determine if OHM has harmed or may harm the environment.

Figure 9 illustrates concentrations of hexavalent chromium detected at CSW-3 (**Figure 9a**) and CSW-3A (**Figure 9b**) since April 8, 2016, after the January 2016 completion of ISCO and ISCR treatments and compares them to the Site-specific NOEC and LOEC. As shown in **Figure 9**, over the last four quarters of sampling, surface water concentrations at both these locations have stabilized near or below the Site-specific NOEC of 60 ug/L, indicating that a condition of No Significant Risk to the environment exists for surface water.

Considering the Site-specific NOEC and LOEC, and considering the presence of pollution sensitive aquatic life in the Unnamed Brook (especially at CSW-3), site-specific toxicity tests indicate that the Massachusetts SWQC is overly conservative for Site conditions.

6.4 UNCERTAINTY ASSESSMENT

Sediment chromium at CSD-5 and CSW-7 was detected slightly above the ecological screening benchmark but was not recommended to be carried forward to a Stage II ERC considering TOC (3.4 %), because of possible confounding sources such as road runoff. Based on these concentrations sediment toxicity testing is not necessary. Additionally, some legacy pesticides unrelated to Site use were found in background

[7] While Section 9.5.3.5 addresses the interpterion of lowest-observed-adverse-effect-levels (LOAELs) and no-observed-adverse-effect-levels (NOAELs) for terrestrial Stage II ERCs, these guidelines are also applicable to LOECs and NOECs in aquatic systems.

(ß and γ BHC) and at SD-5 (DDE, DDT). Even if sediment toxicity tests were conducted at CSD-5, pesticides, which are designed to kill invertebrates (such as candidate benthic test organisms), would likely interfere with the tests.

6.5 SUMMARY AND CONCLUSIONS – UNNAMED BROOK

A condition of No Significant Risk of harm to the environment has been achieved when the following conditions identified in 310 CMR 40.0995(4(e) are met:

1. *There is no physical evidence of a continuing release of oil and/or hazardous material at or from the disposal site to surface waters and wetlands which significantly affects Environmental Receptors; and*
2. *There is no evidence of biologically significant harm (at the subpopulation, community, or system-wide level) known or believed to be associated with current or foreseeable future exposure of wildlife, fish, shellfish or other aquatic biota to oil and/or hazardous material at or from the disposal site; and*
3. *Concentrations of oil and/or hazardous material at or from the disposal site do not and are not likely to exceed any applicable or suitably analogous environmental standards which have been formally promulgated, including Massachusetts Surface Water Quality Standards promulgated at 314 CMR 4.00: Massachusetts Surface Water Quality Standards at current and reasonably foreseeable Exposure Points; and*
4. *There is no indication of the potential for biologically significant harm (at the subpopulation, community, or system-wide level), either currently or for any foreseeable period of time, to Environmental Receptors considering their potential exposures to oil and/or hazardous material and the toxicity of the OHM.*

There is no physical evidence of a continuing release to Unnamed Brook surface water and sediment. which significantly affects Environmental Receptors. The Stage I ES found that a condition of No Significant Risk exists for sediment because maximum exposure concentrations of VOCs and hexavalent chromium are less than or equal to

ecological sediment screening benchmarks, and that concentrations of total chromium in sediment also do not pose significant risk to the sediment community. Exposure concentrations of Site-related OHM in surface water generally occur below generic ecological screening benchmarks. As described in **Section 8**, soil and groundwater concentrations for contaminants of concern are below corresponding soil and groundwater upper concentration limits (UCLs). Concentrations of total chromium in surface water are less than the Massachusetts SWQs for trivalent chromium. While concentrations of hexavalent chromium in surface water at three locations are greater than the Massachusetts SWQS promulgated at 314 CMR 4.00, site-specific toxicity tests suggests that the standard is overly conservative for site conditions:

- Two rounds of toxicity tests indicate that a LOEC of 90 ug/L is protective of the aquatic community. The four most recent quarterly rounds of surface water sampling have determined that hexavalent chromium in surface water at the Site, including location CSW-3 and CSW-3A which historically had the highest concentrations, now perennially occur below this concentration and below a Site-specific NOEC of 60 ug/L for most of the year.
- Observations of pollution sensitive aquatic receptors present in the Unnamed Brook indicate an unimpaired aquatic community.

Therefore, a condition of No Significant Risk of Harm has been achieved for Unnamed Brook surface water and sediment.

7.0 STAGE II ERC – TERRESTRIAL SOIL

A Stage II ERC for surface soil is required because OHM may be transported to the Petapawag ACEC in which the Disposal Site is located.

7.1 PROBLEM FORMULATION

As previously described in **Section 3.0**, OHM from Site operations were released to soil through various mechanisms including leach beds, subsurface piping, loading/storage areas, and accidental spills principally involving solvents and metals. Several remedial actions have resulted in the removal of contaminated soil in portions of the Site.

The remainder of the Problem Formulation is presented in the following sections.

7.1.1 COMPLETE EXPOSURE PATHWAYS

Considering the presence of a terrestrial plant community as described in **Section 4.1**, and considering the presence of deteriorating pavement which no longer serves as a barrier to the underlying soil, a complete exposure pathway may exist for soil. Chemicals may move from surface soil into terrestrial receptors through several major biological exposure mechanisms:

- Uptake from interstitial water between soil particles into tissue (plants, invertebrates)
- Incidental ingestion of chemicals bound to soil particles (invertebrates, birds, mammals)
- Direct contact with chemicals in soil (invertebrates, birds, mammals)
- Dietary ingestion of chemicals in contaminated biota (invertebrates, birds, mammals)

7.1.2 DATA USED IN THE STAGE II ERC FOR SOIL

The soil dataset includes surface soil samples collected at the Conductorlab property in 1993, 2003 through 2007, 2017, and 2018. The Stage II ERC evaluates surface soil collected from the 0-2 feet below ground surface (bgs) interval. The 0-2 foot bgs interval is considered the principal zone of biological activity in soil (USEPA, 2015). Off-property soil has not been impacted by the release and is not part of the Disposal Site.

A comprehensive evaluation of the soil data collected at the Site was conducted to determine what data were usable for this ERC. This evaluation is provided in a table in the Representativeness Evaluation and Data Usability Assessment (REDUA) of the Permanent Solution Statement (PSS). In brief, soil sampling results were generally excluded from the dataset used for this ERC for one or more of the following reasons:

- Sample was collected from excavated soil and was not representative of current Site conditions
- Sample was a field duplicate, QC sample, or other QC sample (e.g., matrix spike)
- Sample was a toxicity characteristic leaching procedure (TCLP) sample
- Sample was associated with the groundwater treatment system
- Sample location was considered to be representative of background conditions or was a "clean" sample (e.g., was analyzed for VOCs and none were detected)
- Sample information such as sampling depth could not be verified
- Sample was representative of a waste material and not soil

Other than data excluded from the data set for one or more of the reasons listed above, soil data collected from the Site were considered usable unless rejected by the lab. Overall, the data that were used in this ERC are considered representative of current conditions at the Site.

Soil samples collected at the Site have been analyzed for one or more of the following: VOCs, semi-volatile organic compounds (SVOCs), volatile petroleum hydrocarbons (VPH), extractable petroleum hydrocarbons (EPH), polychlorinated biphenyls (PCBs), metals, cyanide, and miscellaneous parameters. **Table 9** presents a summary of detection frequency, ranges of detected concentrations, and ranges of laboratory reporting limits for non-detections for site-related analytes. The full soil data set presented in **Appendix F**.

Figure 7 shows all sample locations for the Disposal Site, with those used in this Stage II ERC highlighted in yellow.

7.1.3 ECOLOGICAL CONCEPTUAL SITE MODEL

The ecological site conceptual model (**Figure 8**) illustrates initial estimates of contaminant fate and transport mechanisms, complete exposure pathways, and primary and secondary receptors.

This model is based on the current understanding of disposal site conditions, serves as a framework for evaluating ecological exposure and risk, and shows:

- The source areas (i.e., historical release areas and potential non-Site related release areas);
- Transport mechanisms (processes that partition chemicals among various environmental media);
- Exposure media (those environmental media from which organisms may be exposed to chemicals); and
- Potential receptor organisms based on site ecological investigations.

7.1.4 ASSESSMENT & MEASUREMENT ENDPOINTS

Endpoints in the Stage II ERC define ecological attributes that are to be protected (assessment endpoints) and a measurable characteristic of those attributes (measurement endpoints) that can be used to gauge the degree of impact that has

occurred or may occur. The assessment and measurement endpoints for terrestrial soil are:

EXHIBIT 6. ASSESSMENT AND MEASUREMENT ENDPOINTS – TERRESTRIAL SOIL

Assessment Endpoint	Measurement Endpoint
1. Survival, growth, and reproduction of the terrestrial plant community	a. Compare measured concentrations of OHM detected in soil to NOEC and LOEC benchmarks protective of terrestrial plants.
2. Survival, growth, and reproduction of the soil invertebrate community	b. Compare measured concentrations of OHM detected in soil to NOEC and LOEC benchmarks protective of soil invertebrates.
3. Survival, growth, and reproduction of populations of terrestrial birds	c. Compare measured concentrations of OHM detected in soil to NOEC and LOEC benchmarks protective of terrestrial birds.
4. Survival, growth, and reproduction of populations of terrestrial mammals	d. Compare measured concentrations of OHM detected in soil to NOEC and LOEC benchmarks protective of terrestrial mammals.

7.2 ANALYSIS

In this section, complete soil exposure pathways are evaluated to determine whether the exposures are significant. If significant exposures are determined to be unlikely for any pathway, that pathway can be eliminated from further consideration in the risk assessment.

7.2.1 EXPOSURE POINT CONCENTRATIONS

For each detected analyte, up to two exposure point concentrations (EPCs) were calculated (shown on **Table 10** through **Table 13**):

- The maximum surface soil concentration, representing the highest known exposure at the Site, and
- The 95 percent upper confidence level on the mean (95% UCL) surface soil concentration, representing a conservative estimate of the mean exposure concentration and which represents the concentration to which a community or population would be exposed over time and across the entire disposal site. 95% UCLs were calculated using ProUCL software 5.1.00 (USEPA, 2016). The full Pro-CUL output is provided in **Appendix G**.

EPCs were not calculated for calcium, magnesium, potassium, and sodium as these chemicals are considered essential nutrients and are generally considered to be non-toxic except at extreme concentrations not encountered at this Site.

7.2.2 EVALUATION OF ECOLOGICAL EFFECTS

The risk to ecological receptors was assessed by comparing EPCs to ecological screening benchmarks for soil to calculate hazard quotients (HQ) as shown in **Equation 1**:

$$HQ = \frac{EPC}{Benchmark} \qquad \text{(Equation 1)}$$

Benchmarks were selected by receptor

- plant,
- invertebrates,
- birds, and
- mammals.

Up to two sets of soil benchmarks were developed for each analyte:

- Screening level benchmarks that represent NOECs, below which adverse effects are not expected to occur, and
- Effects-level benchmarks based on LOECs, at or above which adverse effects are considered likely to occur.

NOEC and LOEC screening benchmarks were selected from the sources as described below.

7.2.2.1 Plant Benchmarks

NOECs protective of terrestrial plants (Table 10) were selected from the following sources in the order of preference:

1. USEPA Ecological Soil Screening Levels (Eco-SSLs) (USEPA, 2003-2007) – default value for plants, if provided.

2. USEPA Region 4 Ecological Screening Values for Soil (USEPA, 2018) for generic plants community.

Neither of the above sources have developed plant LOECs. Instead, plant LOECs (**Table 10**) were obtained from:

1. Los Alamos National Laboratory (LANL) Low Effect Ecological Screening Levels (ESLs) for plants (LANL, 2020)

7.2.2.2 Invertebrate Benchmarks

NOECs protective of soil invertebrates (**Table 11**) were selected from the following sources in the order of preference:

1. USEPA Ecological Soil Screening Levels (Eco-SSLs) (USEPA, 2003-2007) – default value for soil invertebrates, if provided.

2. USEPA Region 4 Ecological Screening Values for Soil (USEPA, 2018) for soil invertebrates.

Neither of the above sources have developed invertebrate LOECs. Instead, invertebrate LOECs (**Table 11**) were obtained from:

1. LANL Low Effect ESLs for earthworms (LANL, 2020).

7.2.2.3 Bird and Mammal Benchmarks

NOECs protective of birds (**Table 12**) and mammals (**Table 13**) were selected from the following sources in the order of preference:

1. USEPA Ecological Soil Screening Levels (Eco-SSLs) (USEPA, 2003-2007) – default value for birds or mammals, as applicable.

2. USEPA Region 4 Ecological Screening Values for Soil (USEPA, 2018) for birds or mammals, as applicable.

Neither of the above sources have developed soil LOECs. However, each of USEPA's chemical-specific Eco-SSL documents provides summaries of chronic lowest-observed-adverse-effects-levels (LOAELs) for lethal and sublethal endpoints for studies conducted on birds and mammals. USEPA qualified each study using a rigorous set of selection criteria. For the COPEC refinement, a bird or mammal LOAEL toxicity reference value (TRV) for a given analyte was calculated as the geometric mean of growth and reproduction LOAELs provided in the Eco-SSL technical documents. Only LOAELs that were bounded by (*i.e.,* paired with) a NOAEL study were considered. However, in consideration of the limited data set, the bird TRV for arsenic was based on the geometric mean of only growth LOAELs, as no reproductive LOAELs were available. The mammal TRV for chromium was based on unbounded LOAELs because no bounded LOAELs were provided. This approach conforms with USEPA Eco-SSL guidance, which uses either geometric means or bounded values to calculate a TRV.

Then, using the ecological food chain models provided in the Eco-SSL interim technical documents and in *Guidance for Developing Ecological Soil Screening Levels (Eco-SSLs) Attachment 4-1* (USEPA, 2007), the concentration that results in an HQ = 1 was calculated for each of three trophic pathways (herbivore, insectivore, and carnivore). The lowest of these three soil concentrations was selected as the LOECs that are shown in **Table 12** (birds) and **Table 13** (mammals).

Appendix H (**Table H-1** through **Table H-13**) excerpts the appropriate Eco-SSL data table for each chemical and receptor, and shows the resulting LOAEL TRV calculated as described above. **Table H-14** provides the worksheet that calculates the LOEC using the LOAEL TRV and USEPA ecological food chain model dietary exposure parameters.

Mercury was the only analyte for which a LOEC was required but for which USEPA has not published an Eco-SSL technical document. The mercury LOEC for birds was selected as the lowest LOEC among LANL's avian Low Effects ESL (LANL, 2020). A mercury LOEC for mammals was not required because the maximum mercury concentration was less than the mammal mercury NOEC (see **Section 7.3**).

While some of the calculated bird and mammal LOECs may appear numerically high, they are nevertheless a conservative, scientifically defensible, and appropriate estimate of the central tendency of effects. Using a geometric mean to calculate the underlying TRV results in much less influence for high dose outliers, compared to using an arithmetic mean or median. Only LOAELs that were bounded by (*i.e.,* paired with) a NOAEL study were considered, reducing the possibility that effects doses would be overestimated. In addition, survival studies were conservatively excluded so that the LOAEL TRV would overweight sublethal effects. In the case of copper LOAELs for mammals, the highest bounded growth LOAEL of 47,519 mg/kg bw/d was conservatively removed from the data set because it was several orders of magnitude higher than other growth and reproduction values. Applying these safeguards results in LOECs that area appropriately protective of ecological communities present at the Site, and conforms with USEPA guidance.

7.3 RISK CHARACTERIZATION

Ideally, risk characterization would be based on a concentration response curve for each chemical parameter and receptor combination. However, for most ecological receptors, sufficient information to establish concentration-response curves is not available in the scientific literature. To bracket the probability and magnitude of

adverse effects, HQs were calculated using a combination of maximum detected concentrations and 95% UCLs, and using NOEC and LOEC benchmarks. Comparing HQs calculated with NOECs and maximum concentrations with HQs calculated with 95% UCLs and LOECs helps to minimize over- or under-estimation of risks by considering a broader set of exposure conditions and risk assumptions and help to bracket risk estimates. HQs are summarized by receptors in **Table 10** through **Table 13**.

HQs were interpreted as shown in **Exbibit 7:**

EXHIBIT 7. HAZARD QUOTIENT INTERPRETATION

Hazard Quotient	Outcome
Max EPC/NOEC < 1	Adverse effects are unlikely.
Max EPC/NOEC ≥ 1, and 95% UCL EPC/ LOEC <1	Adverse effects are uncertain, though overall unlikely to occur.
95% UCL EPC/LOEC ≥ 1	Adverse effects are possible with confidence in outcome increasing as the HQ increases.

Notes: Max – maximum; 95% UCL – 95% upper confidence level on the mean; EPC – exposure point concentration; NOEC – no-observed-effect-concentrations; LOEC – low-observed-effect-concentration.

If the Maximum EPC/NOEC calculation resulted in an HQ < 1, then a 95% UCL was not calculated and a LOEC was not selected. HQs could not be calculated for analytes lacking a NOEC or LOEC for a given receptor, resulting in uncertainty which is discussed further in **Section 7.4**.

7.3.1 PLANTS

The Max EPC/NOEC HQs for VOCs, antimony, beryllium, cadmium, mercury and zinc were < 1 indicating that for these analytes, adverse community-level effects are unlikely to occur (**Table 10**). Maximum/NOEC HQs for arsenic, barium, cobalt, copper, lead, manganese, nickel, and vanadium were > 1, but 95% UCL EPC/LOEC

HQs were <1. Considering the low 95% UCL EPC/LOEC HQ, concentrations of these metals are unlikely to cause adverse community level effects.

Max EPC/NOEC and 95% UCL EPC/LOEC HQs for hexavalent chromium (2.1) was > 1. However, the LOEC was not a measured concentration, rather it was extrapolated from the NOEC by using an uncertainty factor of 10 (LANL, 2020). Because the plant effects benchmark for hexavalent chromium is not based on empirical measurements, it may overestimate risk. A less conservative extrapolation factor of 5 would result in an HQ of 1. Considering the low HQ, the uncertainty associated with the LOEC, and considering that a robust plant community is present at and around the Disposal Site, it is concluded that hexavalent chromium has not adversely affected the plant community.

Adverse community-level effects to the plant community are therefore unlikely to occur.

7.3.2 SOIL INVERTEBRATES

The Max EPC /NOEC HQs for VOCs, antimony, barium, beryllium, cadmium, lead, manganese, nickel, and zinc were < 1 indicating that for these analytes, adverse community-level effects are unlikely to occur **(Table 11)**. Max EPC/NOEC HQs for arsenic, copper, and mercury were > 1, but 95% UCL EPC/LOEC HQs were <1. Considering the low 95% UCL EPC/LOEC HQ, concentrations of these metals are unlikely to cause adverse community level effects.

Max EPC/NOEC and 95% UCL EPC/LOEC HQs for hexavalent chromium (2.5) was nominally greater than 1. LANL reports that the LOEC was derived in 2005 calculated as the geometric mean of three values representing survival and reproduction endpoints ranging from 2 mg/kg to 10 mg/kg. Confidence in this benchmark is low because it is based on only three reported concentrations causing toxicity to earthworms. The LOEC used in this Stage II ERC (3.4 mg/kg), lies at the lower, more conservative end of this range (LANL, 2020). Also, use of this benchmark assumes that 100% of detected hexavalent chromium is bioavailable, which

overestimates risk. Considering these conservative assumptions and uncertainties, and considering that the 95% UCL EPC/LOEC HQ is nominally greater than 1, confidence is low that adverse effects to soil invertebrates are actually occurring or are likely.

Adverse community level effects to the soil invertebrate community are therefore unlikely to occur.

7.3.3 BIRDS

The Max EPC/NOEC HQs for VOCs, barium, hexavalent chromium, cobalt, manganese and nickel were < 1 indicating that for these analytes, adverse population level effects to birds are unlikely to occur **(Table 12)**. Max EPC/NOEC HQs for arsenic, cadmium, chromium, copper, lead, and zinc were > 1, but 95% UCL EPC/LOEC HQs were <1. Considering the low 95% UCL EPC/LOEC HQ, concentrations of these metals are unlikely to cause adverse population level effects to birds.

Max EPC/NOEC and 95% UCL EPC/LOEC HQs for mercury (1.2) and vanadium (1.1) were nominally greater than 1. Use of this benchmark assumes that 100% of detected mercury and vanadium are bioavailable, which overestimates risk. Considering these conservative assumptions and uncertainties, and considering the low HQs, confidence is low that adverse effects to birds are actually occurring.

Adverse population level effects to birds are therefore unlikely to occur.

7.3.4 MAMMALS

The Max EPC/NOEC HQs for VOCs, barium, beryllium, hexavalent chromium, cobalt, manganese, mercury, nickel, vanadium, and zinc were < 1 indicating that for these analytes, adverse population level effects to mammals are unlikely to occur **(Table 13)**. Max EPC/NOEC HQs for antimony, arsenic, cadmium, chromium, copper, and lead were > 1, but 95% UCL EPC/LOEC HQs were <1. Considering the low 95% UCL

EPC/LOEC HQ, concentrations of these metals are unlikely to cause adverse population level effects to birds. No mammal 95% UCL EPC/LOEC HQs were > 1.

Adverse population level effects to mammals are therefore unlikely to occur.

7.4 UNCERTAINTY ASSESSMENT

This section presents and discusses the uncertainties associated with the various measurements, calculations, and assumptions which form the basis of the risk characterization. Awareness of the uncertainties involved in each step of the risk assessment is critical to interpreting and understanding risk. As discussed below, most major uncertainties and assumptions likely result in an overestimation of risk.

7.4.1 EXPOSURE POINT CONCENTRATIONS

Use of maximum concentrations in benchmark comparisons is a practice that overestimates risk. In order to reduce uncertainty associated with using the maximum EPC, 95% UCLs were also calculated. The 95% UCL estimates the concentrations to which a receptor population or community would be exposed across the entire Site and is a more realistic exposure estimate that reduces uncertainty.

The Pro-UCL software (USEPA, 2016) has intrinsic mechanisms (*e.g.,* Kaplan-Meier statistic, regression order statistics, substitution methods) for assessing data that are not detected (i.e., U or UJ qualified). For example, for compounds that were not detected, Pro-UCL uses ½ the reporting limit to calculate the 95% UCL. If actual concentrations are less than ½ the reporting limit, this practice could result in an overestimation of risk.

7.4.2 MINOR EXPOSURE PATHWAYS

Dermal and inhalation exposures to wildlife were not evaluated because there are few data relating those exposures to toxic responses in wildlife. An assumption was made that fur or feathers limit dermal exposures of most wildlife. Inhalation exposures are expected to disperse rapidly in outdoor air following volatilization from soil. Although

inhalation and dermal absorption pathways are possibly complete for some receptors, these pathways are considered to be minor compared to dietary ingestion (Sutter, 1993; USEPA 2003).

7.4.3 LOECS

There is a range of available LOECs for any given analyte. Differences in LOECs may stem from many factors, including the use of different ecotoxicological studies, differing endpoints, and even from differences in how the same study is applied. Several measures were taken to reduce uncertainty associated with LOECs and reduce the likelihood that risks from exposure to soil were underestimated. For example, a geometric mean was used to calculate the underlying TRV and results in much less influence for high dose outliers, compared to using an arithmetic mean or median. Only bounded LOAELs were considered, reducing the possibility that effects doses would be underestimate risk. In addition, survival studies were conservatively excluded so that the LOAEL TRV would better represent sublethal effects. Also, in theory, a LOAEL based only on growth and reproduction endpoints is a more conservative estimate of an effects level than one that also includes the lethal endpoint (survival, mortality) because sublethal effects usually occur at lower concentrations than do lethal effects. In the case of copper LOAELs for mammals, the highest bounded growth LOAEL of 47,519 mg/kg bw/d was conservatively removed from the data set because it was several orders of magnitude higher than other growth and reproduction values. Applying these safeguards results in LOECs that are appropriately protective of ecological communities present at the Site.

7.4.4 BIOAVAILABILITY

The exposure estimates used in this Stage II ERC likely overestimate risk as they incorporate several conservative assumptions. For example, the HQ calculation assumes that analytes are 100 percent bioavailable. Bioavailability is the extent to which a substance can be absorbed or otherwise ingested by a living organism, potentially causing an adverse response. Chemical bioavailability is related to the

extent to which it can desorb, dissolve, or otherwise disassociate from the environmental medium in which it occurs. Chemical speciation is one important factor determining bioavailability. Factors such as organic carbon and pH may ameliorate the bioavailability of chemicals in soil. If Site-specific bioavailability is less than 100 percent, the HQs likely overestimate risk.

7.4.5 ANALYTES LACKING NOEC OR LOEC BENCHMARKS

Analytes which lacked screening level benchmarks could not be quantitatively assessed, resulting in uncertainty for those chemicals. These knowledge gaps could result in an underestimation of risks. **Table 10** through **Table 13** identify which analytes lacked NOECs and LOECs, respectively. Benchmarks for aluminum and iron are not concentration based, rather they are based on soil pH. Aluminum may be eliminated from further assessment where soil pH is greater than 5.5. Iron may be eliminated from further assessment where soil pH is between 5 and 8. Soil pH has not been measured at the Site.

7.4.6 NATURAL BACKGROUND

Background concentrations are considered not to have been influenced by releases from a site (U.S. EPA, 2007). As such, concentrations that are consistent with background, and in some cases even marginally above background, are interpreted as unlikely to cause Site-related adverse effects. The natural levels of metals in the soil were not accounted for in this Stage II ERC, resulting in a possible overestimation of risk.

7.5 SUMMARY AND CONCLUSIONS – TERRESTRIAL SOIL

A condition of No Significant Risk of harm to the environment has been achieved when the following conditions identified in 310 CMR 40.0995(4)(e) are met:

1. *there is no physical evidence of a continuing release of oil and/or hazardous material at or from the disposal site to surface waters and wetlands which significantly affects Environmental Receptors; and*

2. *there is no evidence of biologically significant harm (at the subpopulation, community, or system-wide level) known or believed to be associated with current or foreseeable future exposure of wildlife, fish, shellfish or other aquatic biota to oil and/or hazardous material at or from the disposal site; and*
3. *concentrations of oil and/or hazardous material at or from the disposal site do not and are not likely to exceed any applicable or suitably analogous environmental standards which have been formally promulgated, including Massachusetts Surface Water Quality Standards promulgated at 314 CMR 4.00: Massachusetts Surface Water Quality Standards at current and reasonably foreseeable Exposure Points; and*
4. *there is no indication of the potential for biologically significant harm (at the subpopulation, community, or system-wide level), either currently or for any foreseeable period of time, to Environmental Receptors considering their potential exposures to oil and/or hazardous material and the toxicity of the OHM.*

Concentrations of OHM in soil are unlikely to result in adverse effects to the plant and soil invertebrate communities or to populations of birds and mammals. This finding is based on comparisons of maximum and 95% UCL exposure concentrations to NOEC and LOEC benchmarks protective of the ecological receptors. As described in **Section 8** below, soil and groundwater concentrations for contaminants of concern are below corresponding soil and groundwater upper concentration limits (UCLs). (Note that conditions 1 and 3 do not apply to terrestrial soil). Therefore, a condition of No Significant Risk of harm to the environment exists for the impacted surface soil portion of the Disposal Site.

8.0 COMPARISON OF SOIL AND GROUNDWATER TO UPPER CONCENTRATION LIMITS

The MCP requires comparison of soil and groundwater data to Upper Concentration Limits (UCLs) as part of the risk assessment to the environment. per 310 CMR 40.0995(5) and 40.0996(3). This comparison was conducted as part of the Method 3 Risk Characterization for public welfare and found representative concentrations for soil (all depths) and groundwater contaminants of concern are below corresponding soil and groundwater UCLs. Therefore, a condition of No Significant Risk to public welfare and to the environment in the future exists at the Site.

9.0 CONCLUSIONS

In accordance with 310 CMR 40.0995(4)(e), a condition of No Significant Risk of harm to the environment exists for the Disposal Site, for the following reasons:

- There is no physical evidence of a continuing release of oil and/or hazardous material at or from the disposal site to surface waters and wetlands which significantly affects Environmental Receptors.
- There is no evidence of biologically significant harm (at the subpopulation, community, or system-wide level) known or believed to be associated with current or foreseeable future exposure of wildlife, fish, shellfish or other aquatic biota to oil and/or hazardous material at or from the disposal site.
- Concentrations of total chromium in surface water are less than the Massachusetts SWQs for trivalent chromium promulgated at 314 CMR 4.00.
- While concentrations of hexavalent chromium in surface water at three locations are greater than the Massachusetts SWQS promulgated at 314 CMR 4.00, site-specific toxicity tests suggest that the standard is overly conservative for site conditions:
  - Two rounds of toxicity tests indicate that a LOEC of 90 ug/L is protective of the aquatic community. The four most recent quarterly rounds of surface water sampling have determined that hexavalent chromium in surface water at the Site, including location CSW-3 and CSW-3A which historically had the highest concentrations, now perennially occur below this LOEC, and below a Site-specific NOEC of 60 ug/L for most of the year.
  - Observations of pollution sensitive aquatic receptors present in the Unnamed Brook indicate an unimpaired aquatic community.
- There is no indication of the potential for biologically significant harm (at the subpopulation, community, or system-wide level), either currently or for any foreseeable period of time, to Environmental Receptors considering their

potential exposures to oil and/or hazardous material and the toxicity of the OHM.

10.0 LITERATURE CITED

EA Engineering. 2019. Results of Chronic Toxicity Testing on an April 2019 Sample from Wood Environmental & Infrastructure Solutions. April 18.

Earth Tech. 1995. Phase III Remedial Action Plan. Prepared for Grimes Aerospace. February.

Enthalpy. 2019. Toxicological Evaluation of Surface Water Samples. *Ceriodaphnia dubia* Survival and Reproduction Evaluation. May.

EnviroSystems. 2018a. Toxicological Evaluation of Surface Water Samples. *Ceriodaphnia dubia* Survival and Reproduction Evaluation. July.

EnviroSystems. 2018b. Toxicological Evaluation of Surface Water Samples. Toxicity Reduction Evaluation. September.

Hilsenhoff, W.L. 1981. Aquatic insects of Wisconsin. Keys to Wisconsin genera and notes on biology, distribution and species. National History Council, University of Wisconsin-Madison 2. 60 pp.

Kayhanian, M., B.D. Fruchtman, J.S. Gulliver et al. 2012. Review of highway runoff characteristics: Comparative analysis and universal implications. *Water Research* 46(20):6609-6624.

Lenat, D.R. 1988. Water Quality Assessment of Streams Using a Qualitative Collection Method for Benthic Macroinvertebrates. *Journal of the North American Benthological Society*:7(2):222-233

Los Alamos National Laboratory (LANL). Ecorisk Database Release 4.2. November 19.

MassDEP, 2019. 310 CMR 40.0000, Massachusetts Contingency Plan (MCP). Bureau of Waste Site Cleanup. Boston, Massachusetts. December 27, 2019.

MassDEP, 2006. Technical Updates to the Guidance for Ecological Risk Assessment. Office of Research & Standards. Various publications. January 2006.

MassDEP, 1996. Guidance for Disposal Site Risk Characterization in Support of the Massachusetts Contingency Plan. Chapter 9: Method 3 Environmental Risk Characterization. Interim Final Policy BWSC/ORS-95-141. April 1996.

Massachusetts Department of Environmental Protection (MassDEP), 1995. Guidance for Disposal Site Risk Characterization in Support of the Massachusetts Contingency Plan. Interim Final Policy BWSC/ORS-95-141. July 1995.

Parsons. 2005 Phase I – Initial Site Investigation Report Tier Classification, Conductorlab Site (RTN 2-00053, 2-15203, 2-15486), Groton, Massachusetts, January.

Sansalone, J.J., S.G. Buchberger, and R. Al-Abed. 1996. Fractionation of heavy metals in pavement runoff. *The Science of the Total Environment* 189/190: 371-378.

USEPA (United States Environmental Protection Agency). 2022. Nationally Recommended Ambient Water Quality Criteria. Available at: https://www.epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table. Accessed May 23.

USEPA. 2018. Region 4 Ecological Risk Assessment Supplemental Guidance

Weather Underground. 2018. Weather history, Groton, MA. Available at: www.wunderground.com. Accessed August 2.

TABLES

Table 1. Surface Water and Samples Evaluated in the ERA.
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Sample Date	Surface Water [a]		Sediment [b]
	Analytical Chemistry	Toxicity Testing [c]	Analytical Chemistry
4/8/2016	X		
6/3/2016	X		
12/14/2016	X		
4/24/2017	X		
6/15/2017	X		
9/15/2017	X		
12/18/2017	X		
7/2/2018	X	X	X
10/9/2018	X		
12/13/2018	X		
4/4/2019	X	X	
6/24/2019	X		
9/23/2019	X		
12/19/2019	X		
4/6/2020	X		
5/7/2020	X		
6/10/2020	X		
7/1/2020	X		
7/8/2020	X		
9/28/2020	X		
11/2/2020	X		
12/21/2020	X		
4/5/2021	X		
6/16/2021	X		
9/1/2021	X		

Created by: AMR 6/7/2022

Checked by: SEB 6/15/2022

Notes:

[a] Surface water locations: CSW-2, CSW-3, CSW-3A, CSW-4, CSW-5

[b] Sediment locations: CSD-3, CSD-3A, CSW-5 (CSD-2 and CSD-4 were dry)

[c] 3-brood (7-day) *Ceriodaphnia dubia* tests for survival and reproduction (USEPA, 2002)

X - sample collected for indicated medium and date.

Sources:

USEPA. 2002. Short Term Methods for Estimating Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition. EPA-821-R-02-013. October.

Table 2. Ecological Screening Benchmarks for Surface Water.
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Analyte [a]	CAS No.	Surface Water Screening Benchmark (ug/L)	Source [c]
VOCs (ug/L) [b]			
cis-1,2-Dichloroethene	156-59-2	620	Reg IV FW ESV
trans-1,2-Dichloroethene	156-60-5	558	Reg IV FW ESV
Trichloroethene	79-01-6	220	Reg IV FW ESV
Vinyl chloride	75-01-4	930	Reg IV FW ESV
Metals (ug/L)			
Chromium-(All forms)	7440-47-3	-	CCC AWQC
Chromium-Trivalent [d]	16065-83-1	74	CCC AWQC
Chromium-Hexavalent [d]	18540-29-9	11	CCC AWQC

Created by: AMR 6/7/2022

Checked by: SEB 6/15/2022

Notes:

[a] Only site-related analytes are shown. Full analytical suites are shown in Appendix B.

[b] Trichloroethene and daughter breakdown products are shown.

[c] Reg IV FW ESV - USEPA Region IV Freshwater Chronic Surface Water Ecological Screening Value (USEPA, 2018)
CCC AWQC - Chronic ambient water quality criterion (USEPA, 2019)

[d] Benchmark for dissolved fraction, calculated using a hardness of 100 mg/L as $CaCO_3$.

E

Sources:

USEPA. 2019. Nationally Recommended Water Quality Criteria for - Aquatic Life. Available at: https://www.epa.gov wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table. Accessed September 11.

USEPA. 2018. Region 4 Ecological Risk Assessment Supplemental Guidance. March.

Table 3. Ecological Screening Benchmarks for Sediment.
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Analyte [a]	CAS No.	Sediment Screening Benchmark	Source [c]
VOCs (ug/kg) [b]			
cis-1,2-Dichloroethene	156-59-2	432	Reg IV FW ESV
trans-1,2-Dichloroethene	156-60-5	389	Reg IV FW ESV
Trichloroethene	79-01-6	78	Reg IV FW ESV
Vinyl chloride	75-01-4	482	Reg IV FW ESV
Metals (mg/kg)			
Chromium (All forms)	7440-47-3	110	MassDEP
Chromium-Trivalent	16065-83-1	110	MassDEP
Chromium-Hexavalent	18540-29-9	-	-

Created by: AMR 6/7/2022

Checked by: SEB 6/15/2022

Notes:

[a] Only site-related analytes are shown.

[b] TCE and daughter breakdown products are shown.

[c] Reg IV FW ESV - USEPA Region IV Freshwater Sediment Ecological Screening Value (USEPA, 2018)
MassDEP - Massachusetts Department of Environmental Protection Interim technical Guidelines (MassDEP, 2006)

Sources

MassDEP. 2006. Technical Update - Revised Sediment Screening Values. January.

USEPA. 2018. Region 4 Ecological Risk Assessment Supplemental Guidance. March.

Table 4. Surface Water Benchmark Comparison
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Analyte [a]	Frequency of Detection			Range of Detection Limits for Non-detects			Range of Detected Concentrations			Location of Maximum Detection	Benchmark [b]	Number of Detections Which Exceed Benchmarks
				Min		Max	Min		Max			
VOCs (ug/L)												
cis-1,2-Dichloroethene	7	/	92	1	-	1	0.87	-	5.9	CSW-3A	620	0
trans-1,2-Dichloroethene	0	/	92	1	-	1		-			558	0
Trichloroethene	67	/	92	1	-	1	0.5	-	90	CSW-3	220	0
Vinyl chloride	0	/	92	1	-	1		-			930	0
Metals (ug/L)												
Chromium (All forms) [c]	94	/	121	5	-	5	1.6	-	930	CSW-3	74 [e]	18
Chromium-Hexavalent	86	/	112	5	-	10	5.6	-	880	CSW-3	11 [d]	72

Created by: AMR 6/7/2022
Checked by: SEB 6/15/2022

Notes:
[a] Only site-related parameters are shown.
[b] Screening Benchmarks are presented in Table 2.
[c] Dissolved fraction
[d] Laboratory reported total fraction, benchmark is dissolved fraction.
[e] Assumes that all detected forms are primarily trivalent chromium.

Table 5. Sediment Benchmark Comparison.
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Analyte [a]	CAS No.	CSD-1 07/02/2018		CSD-3 07/02/2018		CSD-3A 07/02/2018		CSD-5 07/02/2018		CSW-7 11/11/2005		CSW-12 11/11/2005		CSW-12 4/4/2007		CSD-BKG001 [d] 07/02/2018		Sediment Screening Benchmark [e]
VOCs (ug/kg) [b]																		
cis-1,2-Dichloroethene	156-59-2	2.9	U	2.6	U	3.5	U	4.1	U							4.3	U	432
trans-1,2-Dichloroethene	156-60-5	2.9	U	2.6	U	3.5	U	4.1	U							4.3	U	389
Trichloroethene	79-01-6	2.9	U	4.2		2.5	J	1.6	J							4.3	U	78
Vinyl chloride	75-01-4	2.9	UJ	2.6	UJ	3.5	UJ	4.1	UJ							4.3	UJ	482
Metals (mg/kg)																		
Chromium (All forms)	7440-47-3	7.6		84		110		170	J	156		48.6		14		8.2		110
Chromium-Trivalent	16065-83-1	7.6		84		110		170								8.2		110
Chromium-Hexavalent	18540-29-9	0.46	U	0.48	U	0.32	J	0.5	U	0.64	UJ	0.79	UJ			0.48	U	-
Misc. Parameters (mg/kg)																		
Total Organic Carbon [c]	TOC	7,200		6,700		3,900		34,000								8,700		-

Created by: AMR 6/7/2022
Checked by: SEB 6/15/2022

Notes:
[a] Only site-related analytes are shown. Full analytical suite shown in Appendix C was conducted to identify possible interferents in case toxicity tests were needed.
[b] TCE and daughter breakdown products are shown.
[c] Total organic carbon (TOC) is not considered a contaminant and is shown for informational purposes only.
[d] Upstream sample collected adjacent to an agricultural field.
[e] Sediment screening benchmarks obtained in Table 3.

U - not detected at concentration indicated
J - estimated value
- not applicable

Table 6. Surface Water Toxicity Test Results - July 2018.
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Sample Location	Hexavalent Chromium (ug/L)	Mean % Survival (Day 7)	Mean Reproduction (ypf)	% Females Producing 3 Broods
Lab Control	-	90%	28.7	80%
CSW-BKG001	5.6	100%	25.6	90%
CSW-3	240	0%	0	0%
CSW-3A	240	90%	2.7	0%
CSW-5	22	100%	26.9	89%

Created by: AMR 6/7/2022

Checked by: SEB 6/15/2022

Notes:

[a] Chromium concentrations presented in Appendix B Surface Water Data Summary.
Toxicity test reports are provided in Appendix D and Appendix E.

ug/L - micrograms per liter
ypf - number of young (juveniles) per female

Table 7. CSW-3 Serial Dilution - July 2018.
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Effluent Concentration [a]	Corresponding Hexavalent Chromium Concentration (ug/L) [b]	Mean % Survival (Day 7)	Mean Reproduction (ypf)	% Females Producing 3 Broods	Statistically Significant Adverse Effect Based On:	
					Survival	Reproduction
Lab Control	-	100%	33.6	90%	-	-
100%	240	0.0%	0	0.0%	**Yes**	**Yes**
50%	120	90%	17.6	50%	No	**Yes**
25%	60	100%	27.5	80%	No	No
12.5%	30	100%	29.1	90%	No	No
6.25%	15	100%	21	90%	No	No

Created by: AMR 6/7/2022
Checked by: SEB 6/15/2022

Notes:

[a] Expressed as a percentage of sample, e.g. 100% indicates undiluted sample, 6.25% indicates sample is 6.25% CSW-3 with lab water making up the remainder.

[b] Hexavalent chromium was measured in Sample CSW-3 at 240 ug/L. Hexavalent chromium concentrations in each test level were calculated by multiplying the undiluted sample concentration (240 ug/L) by the effluent concentration. For example, 240 * 50% Effluent Concentration = 120 ug/L.

ug/L - micrograms per liter
ypf - number of young (juveniles) per female

Table 8. Surface Water Toxicity Test Results - April 2019.
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Laboratory A (EA Engineering)

Effluent Concentration [a]	Corresponding Hexavalent Chromium Concentration at CSW-3 (ug/L) [b]	Mean % Survival (Day 7)	Mean Reproduction (ypf)	Statistically Significant Adverse Effect Based On:	
				Survival [c]	Reproduction [c]
Lab Control	-	100%	28.2	-	-
100%	24	100%	34.9	No	No
75%	18	90%	31	No	No
50%	12	100%	31.2	No	No
25%	6	100%	33.3	No	No
12.5%	3	100%	32.6	No	No
6.25%	2	90%	28.2	No	No

Laboratory B (Enthalpy Analytical)

Effluent Concentration [a]	Corresponding Hexavalent Chromium Concentration at CSW-3 (ug/L) [b]	Mean % Survival (Day 8)	Mean Reproduction (ypf)	Statistically Significant Adverse Effect Based On:	
				Survival	Reproduction
Lab Control [e]	-	100%	38.8/36.7	-	-
100%	24	100%	31.2	No	Yes [d]
75%	18	100%	34.3	No	Yes [d]
50%	12	100%	35.1	No	Yes [d]
E	6	100%	35.2	No	Yes [d]
12.5%	3	100%	36.6	No	No
6.25%	2	100%	34.1	No	Yes [d]

Created by: AMR 6/7/2022
Checked by: SEB 6/15/2022

Notes:
[a] Expressed as a percentage of sample, e.g. 100% indicates undiluted sample, 6.25% indicates sample is 6.25% CSW-3 with lab water making up the remainder.
[b] Hexavalent chromium was measured in Sample CSW-3 at 24 ug/L. Hexavalent chromium concentrations in each test level were calculated by multiplying the undiluted sample concentration (24 ug/L) by the effluent concentration. For example, 24 * 50% Effluent Concentration = 12 ug/L.
[c] Discussion of statistical significance occurs in the 'Results' section of the report narrative (EA Engineering, 2019). Site reproduction was better than lab control.
[d] Statistical significance may be overestimated due to unusually low reproductive variability in the control, resulting in an oversensitive test that falsely reports significant effects. See laboratory report (Enthalpy, 2019) for more details.
[e] Higher of the site-specific reconstituted (SSR) and moderately soft reconstituted (MSR) control.

ug/L - micrograms per liter
ypf - number of young per female

Sources:
EA Engineering. 2019. Results of Chronic Toxicity Testing on an April 2019 Sample from Wood Environmental Infrastructure Solutions. April 18.
Enthalpy Analytical. 2019. toxicological Evaluation of A Surface Water Sample. April.

Table 9. Soil Summary Statistics.
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Analyte [a]	Frequency of Detection			Range of Detected Concentrations			Range of Detection Limits for Non-detects		
VOCs (ug/kg) [b]				Min		Max	Min		Max
Acetone	4	/	13	0.005	-	0.009	0.046	-	1.2
m&p-Xylenes	1	/	13	0.003	-	0.003	0.002	-	0.29
Trichloroethene	2	/	18	0.004	-	0.004	0.002	-	0.29
Toluene	2	/	18	4E-04	-	4E-04	0.002	-	0.29
EPHs (mg/kg)									
EPH Concentration (Total)	1	/	2	120	-	120	3.6	-	3.6
C11-C22 Aromatic	1	/	2	110	-	110	3.6	-	3.6
C19-C36 Aliphatic	1	/	2	11	-	11	3.6	-	3.6
Metals (mg/kg)									
Aluminum	8	/	8	10000	-	24000			
Antimony	3	/	13	0.26	-	1.2	1.2	-	6.94
Arsenic	18	/	18	2.8	-	100			
Barium	13	/	13	12	-	160			
Beryllium	6	/	13	0.13	-	0.5	0.12	-	0.57
Cadmium	6	/	13	0.67	-	1.67	0.12	-	0.56
Chromium	26	/	26	23	-	170			
Chromium VI	12	/	21	0.17	-	24	0.22	-	8
Cobalt	8	/	8	4.8	-	20			
Copper	18	/	18	7.4	-	200			
Iron	8	/	8	11000	-	36000			
Lead	18	/	18	4.4	-	150			
Manganese	8	/	8	130	-	360			
Mercury	2	/	8	0.08	-	0.17	0.092	-	0.13
Nickel	13	/	13	14	-	59			
Vanadium	8	/	8	20	-	83			
Zinc	8	/	8	31	-	67			

Notes:

[a] Only site-related parameters are shown.

EPH - extractable petroleum hydrocarbon
max - maximum
mg/kg - milligrams per kilogram
min -minimum
VOC - volatile organic compound

Table 10. Risk Calculations - Plants.
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Analyte [a] [b]	EPC		Plant NOEC [d]	Source	Max/NOEC HQ [e]	Plant LOEC [f]	Source	95% UCL/LOEC HQ [g]
	Maximum Detection	95% UCL [c]						
VOCs (mg/kg)								
Acetone	0.01	-	-	-	-	-	-	-
m&p-Xylenes [i]	0.003	-	100	Reg IV	0.00003	-	-	-
Toluene	0.0004	-	200	Reg IV	0.000002	-	-	-
Trichloroethene	0.004	-	-		-			
EPH (mg/kg)								
EPH Concentration (Total)	120.00	-	-	-	-	-	-	-
C11-C22 Aromatic	110.00	-	-	-	-	-	-	-
C19-C36 Aliphatic	11.00	-	-	-	-	-	-	-
Metals (mg/kg)								
Aluminum	24000	-	pH [j]	Eco-SSL	-	-	-	-
Antimony	1.2	0.75	5	Reg IV	0.24	-	-	-
Arsenic	100	46.13	18	Eco-SSL	**5.6**	91	LANL	0.51
Barium	160	62.59	110	Reg IV	**1.5**	260	LANL	0.24
Beryllium	0.5	-	2.5	Reg IV	0.20	-	-	-
Cadmium	1.67	0.759	32	Eco-SSL	0.05	-	-	-
Chromium	170	74.54	-	-	-	-	-	-
Chromium VI	21.2	8.57	0.35	Reg IV	**61**	4	LANL	**2.1**
Cobalt	20	13.23	13	Eco-SSL	**1.5**	130	LANL	0.10
Copper	200	55.64	70	Eco-SSL	**2.9**	490	LANL	0.11
Iron	36000	22,652	[j]	Eco-SSL	-	-	-	-
Lead	150	49.09	120	Eco-SSL	**1.3**	570	LANL	0.09
Manganese	360	282	220	Eco-SSL	**1.6**	1100	LANL	0.26
Mercury	0.17	0.156	0.3	Reg IV	0.57	64	LANL	-
Nickel	59	31.07	38	Eco-SSL	**1.6**	270	LANL	0.12
Vanadium	83	46.9	60	Reg IV	**1.4**	80	LANL	0.59
Zinc	67	55.17	160	Eco-SSL	0.42	810	LANL	-

Notes:

[a] Only detected analytes are shown.
[b] The full soil dataset is presented in Appendix F.
[c] A 95% UCL was calculated only for those analytes for which the maximum concentrations was greater than the NOEC benchmark.
[d] NOECs were obtained from the following sources presented in the order of preference:
    1. USEPA Eco-SSL for plants (USEPA, 2003-2007).
    2. USEPA Region IV soil Ecological Screening Levels for plants (USEPA, 2018)
[e] HQ is calculated by dividing the maximum concentration by the NOEC
[f] A LOEC was provided only for those anlaytes for which the maximum concentration was greater than the NOEC benchmark.
[g] LOECs were obtained from the following sources presented in the order of preference:
    1. LANL - Los Alamos National Laboratory (LANL) Ecological Low Effect Value for terrestrial plants (LANL, 2020)
[h] HQ is calculated by dividing the 95% UCL by the LOEC.
[i] Total xylenes used as a surrogate for m/p-xylenes.
[j] Benchmark for aluminum and iron are not concentration based.

Bold - HQ > 1
EPC - exposure point concentration
EPH - extractable petroleum hydrocarbon
HQ - hazard quotient
LOEC - lowest observed effects concentration
Max - maximum concentration
NOEC - no observed effect concentration
VOC - volatile organic compound
95% UCL - 95 percent upper confidence level on the mean
- not applicable or not available

References:

LANL. 2020. Low-effect Ecological Screening Level (ESL) for Soil, Version 4-2. November.
USEPA. 2003-2007. Ecological Soil Screening Level (Eco-SSL) interim technical documents
USEPA. 2018. Region 4 Ecological Risk Assessment Supplemental Guidance. March.

Table 11. Risk Calculations - Soil Invertebrates.
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Analyte [a] [b]	EPC		Invertebrate NOEC [d]	Source	Max/NOEC HQ [e]	Invert LOEC [f]	Source	95% UCL/LOEC HQ [g]
	Maximum Detection	95% UCL [c]						
VOCs (mg/kg)								
Acetone	0.01	-	0.04	Reg IV	0.23	-	-	-
m&p-Xylenes [i]	0.0033	-	0.10	Reg IV	0.03	-	-	-
Toluene	0.0004	-	0.15	Reg IV	0.003	-	-	-
Trichloroethene	0.0042	-	0.06	Reg IV	0.07	-	-	-
EPH (mg/kg)								
EPH Concentration (Total)	120	-	-	-	-	-	-	-
C11-C22 Aromatic	110	-	-	-	-	-	-	-
C19-C36 Aliphatic	11	-	-	-	-	-	-	-
Metals (mg/kg)								
Aluminum	24000	-	pH [j]	Eco-SSL	-	-	-	-
Antimony	1.2	0.75	78	Eco-SSL	0.02	-	-	-
Arsenic	100	46.13	6.8	Reg IV	**15**	68	LANL	0.68
Barium	160	62.59	330	Eco-SSL	0.48	-	-	-
Beryllium	0.5	-	40	Eco-SSL	0.01	-	-	-
Cadmium	1.67	0.759	140	Eco-SSL	0.01	-	-	-
Chromium	170	74.54	-	-	-	-	-	-
Chromium VI	21.2	8.57	0.34	Reg IV	**62**	3.4	LANL	**2.5**
Cobalt	20	13.23	-	-	-	-	-	-
Copper	200	55.64	80	Eco-SSL	**2.5**	530	LANL	0.10
Iron	36000	22,652	[j]	Eco-SSL	-	-	-	-
Lead	150	49.09	1700	Eco-SSL	0.09			
Manganese	360	282	450	Eco-SSL	0.80	-	-	-
Mercury	0.17	0.156	0.05	Reg IV	**3.4**	0.5	LANL	0.31
Nickel	59	31.07	280	Eco-SSL	0.21	-	-	-
Vanadium	83	46.9	-	-	-	-	-	-
Zinc	67	55.17	120	Eco-SSL	0.56	-	-	-

Notes:

[a] Only detected analytes are shown.
[b] The full soil dataset is presented in Appendix F.
[c] A 95% UCL was calculated only for those analytes for which the maximum concentrations was greater than the NOEC benchmark.
[d] NOECs were obtained from the following sources presented in the order of preference:
1. USEPA Eco-SSL for soil invertebrates (USEPA, 2003-2007)
2. USEPA Region IV soil Ecological Screening Levels for soil invertebrates (USEPA, 2018)

[e] HQ is calculated by dividing the maximum concentration by the NOEC.
[f] A LOEC was provided only for those anlaytes for which the maximum concentration was greater than the NOEC benchmark.
[g] LOECs were obtained from the following sources presented in the order of preference:
1. LANL - Los Alamos National Laboratory (LANL) Ecological Low Effect Value for soil invertebrates (LANL, 2020)

[h] HQ is calculated by dividing the 95% UCL by the LOEC.
[i] Total xylenes used as a surrogate for m/p-xylenes.
[j] Benchmark for aluminum and iron are not concentration based.

Bold - HQ > 1
EPC - exposure point concentration
EPH - extractable petroleum hydrocarbon
HQ - hazard quotient
Invert - invertebrate
LOEC - lowest observed effects concentration
Max - maximum concentration
NOEC - no observed effect concentration
VOC - volatile organic compound
95% UCL - 95 percent upper confidence level on the mean
- not applicable or not available

References:

LANL. 2020. Low-effect Ecological Screening Level (ESL) for Soil, Version 4-2. November.
USEPA. 2003-2007. Ecological Soil Screening Level (Eco-SSL) interim technical documents
USEPA. 2018. Region 4 Ecological Risk Assessment Supplemental Guidance. March.

Table 12. Risk Calculations - Birds.
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Analyte [a] [b]	EPC		Bird NOEC [d]	Source	Max/NOEC HQ [e]	Birds LOEC [f]	Source	95% UCL/LOEC HQ [g]
	Maximum Detection	95% UCL [c]						
VOCs (mg/kg)								
Acetone	0.01	-	7.5	Reg IV	0.001	-	-	-
m&p-Xylenes [i]	0.0033	-	41	Reg IV	0.0001	-	-	-
Toluene	0.0004	-	-	-	-	-	-	-
Trichloroethene	0.0042	-	-	-	-	-	-	-
EPH (mg/kg)								
EPH Concentration (Total)	120	-	-	-	-	-	-	-
C11-C22 Aromatic	110	-	-	-	-	-	-	-
C19-C36 Aliphatic	11	-	-	-	-	-	-	-
Metals (mg/kg)								
Aluminum	24000	-	pH [j]	Eco-SSL	-	-	-	-
Antimony	1.2	0.75	-	-	**-**	-	-	-
Arsenic	100	46.13	43	Eco-SSL	**2.3**	92.00	Eco-SSL	0.50
Barium	160	62.59	820	Reg IV	0.20	-	-	**-**
Beryllium	0.5	-	-	-	-	-	-	-
Cadmium	1.67	0.759	0.77	Eco-SSL	**2.2**	4.5	Eco-SSL	0.17
Chromium	170	74.54	26	Eco-SSL	**6.5**	144	Eco-SSL	0.5
Chromium VI	21.2	8.57	140	Reg IV	0.15	-	-	-
Cobalt	20	13.23	120	Eco-SSL	0.17	-	-	-
Copper	200	55.64	28	Eco-SSL	**7.1**	244	Eco-SSL	0.2
Iron	36000	22,652	[j]	Eco-SSL	-	-	-	-
Lead	150	49.09	11	Eco-SSL	**14**	488	Eco-SSL	0.1
Manganese	360	282	4,300	Eco-SSL	0.08	-	-	-
Mercury	0.17	0.156	0.013	Reg IV	**13**	0.13	LANL	**1.2**
Nickel	59	31.07	210	Reg IV	0.28	-	-	-
Vanadium	83	46.9	7.8	Eco-SSL	**11**	43	Eco-SSL	**1.1**
Zinc	67	55.17	46	Eco-SSL	**1.5**	474	Eco-SSL	0.1

Notes:

[a] Only detected analytes are shown.
[b] The full soil dataset is presented in Appendix F.
[c] A 95% UCL was calculated only for those analytes for which the maximum concentrations was greater than the NOEC benchmark.
[d] NOECs were obtained from the following sources presented in the order of preference:
1. USEPA Eco-SSL for birds (USEPA, 2003-2007)
2. USEPA Region IV soil Ecological Screening Levels for birds (USEPA, 2018)

[e] HQ is calculated by dividing the maximum concentration by the NOEC.
[f] A LOEC was provided only for those anlaytes for which the maximum concentration was greater than the NOEC benchmark.
[g] LOECs were obtained from the following sources presented in the order of preference:
1. Calculated from studies provided in USEPA Eco-SSL technical documents (USEPA, 2003-2007)
2. LANL - Los Alamos National Laboratory (LANL) Ecological Low Effect Value, lowest value among avian receptors (LANL, 2020)

[h] HQ is calculated by dividing the 95% UCL by the LOEC.
[i] Total xylenes used as a surrogate for m/p-xylenes.
[j] Benchmark for aluminum and iron are not concentration based.

Bold - HQ > 1
EPC - exposure point concentration
EPH - extractable petroleum hydrocarbon
HQ - hazard quotient
LOEC - lowest observed effects concentration
Max - maximum concentration
NOEC - no observed effect concentration
VOC - volatile organic compound
95% UCL - 95 percent upper confidence level on the mean
- not applicable or not available

References:

LANL. 2020. Low-effect Ecological Screening Level (ESL) for Soil, Version 4-2. November.
USEPA. 2003-2007. Ecological Soil Screening Level (Eco-SSL) interim technical documents
USEPA. 2018. Region 4 Ecological Risk Assessment Supplemental Guidance. March.

Table 13. Risk Calculations - Mammals.
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Analyte [a] [b]	EPC		Mammals NOEC [d]	Source	Max/NOEC HQ [e]	Mammals LOEC [f]	Source	95% UCL/LOEC HQ [g]
	Maximum Detection	95% UCL [c]						
VOCs (mg/kg)								
Acetone	0.01	-	1.2	Reg IV	0.01	-	-	-
m&p-Xylenes [i]	0.0033	-	1.4	Reg IV	0.00236	-	-	-
Toluene	0.0004	-	23	Reg IV	0.00002	-	-	-
Trichloroethene	0.0042	-	42	Reg IV	0.00010	-	-	-
EPH (mg/kg)								
EPH Concentration (Total)	120	-	-	-	-	-	-	-
C11-C22 Aromatic	110	-	-	-	-	-	-	-
C19-C36 Aliphatic	11	-	-	-	-	-	-	-
Metals (mg/kg)								
Aluminum	24000	-	pH [j]	Eco-SSL	-	-	-	-
Antimony	1.2	0.75	0.27	Eco-SSL	**4.4**	74	Eco-SSL	0.01
Arsenic	100	46.13	46	Eco-SSL	**2.2**	744	Eco-SSL	0.1
Barium	160	62.59	2,000	Eco-SSL	0.08	-	-	-
Beryllium	0.5	-	21	Eco-SSL	0.02	-	-	-
Cadmium	1.67	0.759	0.36	Eco-SSL	**4.6**	7.6	Eco-SSL	0.10
Chromium	170	74.54	34	Eco-SSL	**5.0**	792	Eco-SSL	0.09
Chromium VI	21.2	8.57	130	Eco-SSL	0.16	-	-	-
Cobalt	20	13.23	230	Eco-SSL	0.09	-	-	-
Copper	200	55.64	49	Eco-SSL	**4.1**	1175	Eco-SSL	0.05
Iron	36000	22,652	[j]	Eco-SSL	-	-	-	-
Lead	150	49.09	56	Eco-SSL	**2.7**	3310	Eco-SSL	0.01
Manganese	360	282	4,000	Eco-SSL	0.09	-	-	-
Mercury	0.17	0.156	1.7	Reg IV	0.10	-	-	-
Nickel	59	31.07	130	Eco-SSL	0.45	-	-	-
Vanadium	83	46.9	280	Eco-SSL	0.30	-	-	-
Zinc	67	55.17	79	Eco-SSL	0.85	-	-	-

Notes:

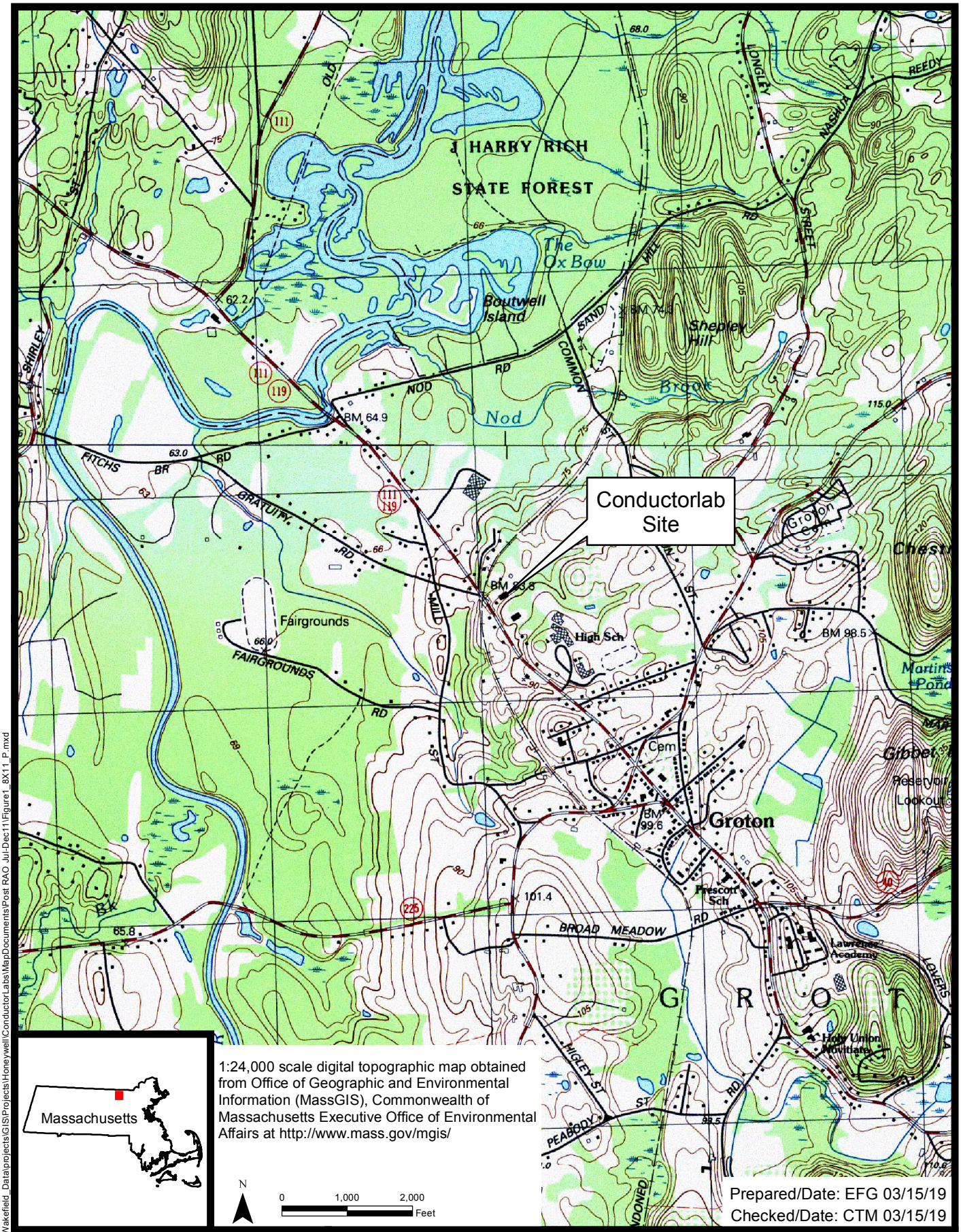
[a] Only detected analytes are shown.
[b] The full soil dataset is presented in Appendix F.
[c] A 95% UCL was calculated only for those analytes for which the maximum concentrations was greater than the NOEC benchmark.
[d] NOECs were obtained from the following sources presented in the order of preference:
    1. USEPA Eco-SSL for mammals (USEPA, 2003-2007)
    2. USEPA Region IV soil Ecological Screening Levels for mammals (USEPA, 2018)
[e] A LOEC was provided only for those anlaytes for which the maximum concentration was greater than the NOEC benchmark.
[f] LOECs were obtained from the following sources presented in the order of preference:
    1. Calculated from studies provided in USEPA Eco-SSL technical documents (USEPA, 2003-2007)
    2. LANL - Los Alamos National Laboratory (LANL) Ecological Low Effect Value, lowest value among mammalian receptors (LANL, 2020)
[g] HQ is calculated by dividing the maximum concentration by the NOEC.
[h] HQ is calculated by dividing the 95% UCL by the LOEC.
[i] Total xylenes used as a surrogate for m/p-xylenes.
[j] Benchmark for aluminum and iron are not concentration based.

Bold - HQ > 1
EPC - exposure point concentration
EPH - extractable petroleum hydrocarbon
HQ - hazard quotient
LOEC - lowest observed effects concentration
Max - maximum concentration
NOEC - no observed effect concentration
VOC - volatile organic compound
95% UCL - 95 percent upper confidence level on the mean
- not applicable or not available

References:

LANL. 2020. Low-effect Ecological Screening Level (ESL) for Soil, Version 4-2. November.
USEPA. 2003-2007. Ecological Soil Screening Level (Eco-SSL) interim technical documents
USEPA. 2018. Region 4 Ecological Risk Assessment Supplemental Guidance. March.

FIGURES



1:24,000 scale digital topographic map obtained from Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs at http://www.mass.gov/mgis/

N

0 1,000 2,000 Feet

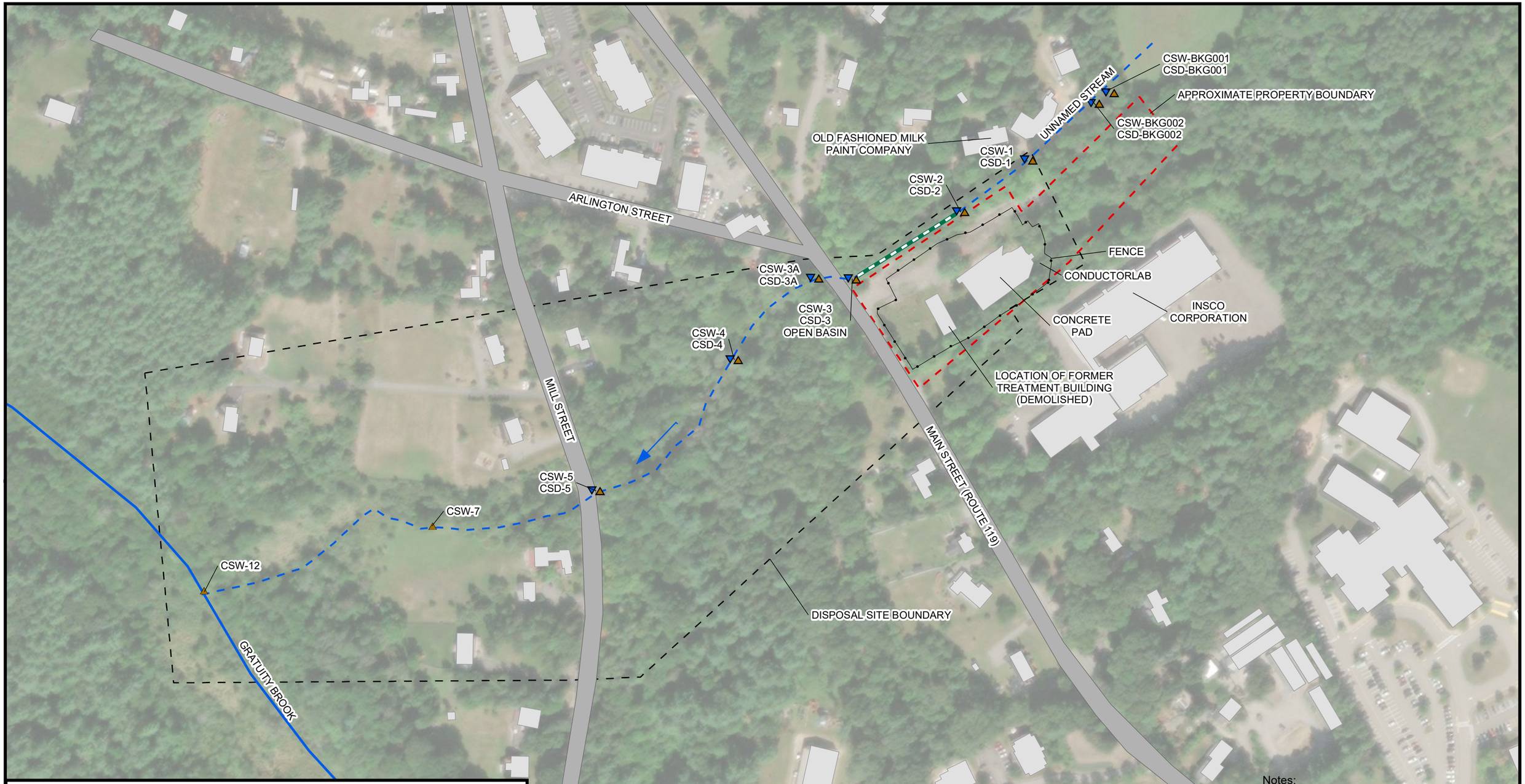
Prepared/Date: EFG 03/15/19
Checked/Date: CTM 03/15/19

Honeywell International Inc.
Conductorlab
Groton, Massachusetts

wsp

Site Location Map
Project 3616-19-6090
Figure 1

Document: P:\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLabs\MapDocuments\Post RAO Jul-Dec11\Figure1_8X11_P.mxd



Conductorlab Site
Honeywell International Inc.
Groton, Massachusetts

wsp

Surface Water and Sediment Sampling Locations
Project 3617-17-7412
Figure 2

Document Path: \\WFD-fs1\Projects\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLabs\MapDocuments\Post RAO Jul-Dec11\Figure2_11X17_LS.mxd



Legend

- Concrete Culvert
- Wetlands
- Site Boundary
- Approximate Property Boundary
- Structure or House
- Intermittent Stream
- Fence
- Road
- Stream

N

0 100 200 Feet

PFO1E location was obtained from the National Wetland Inventory online mapper.

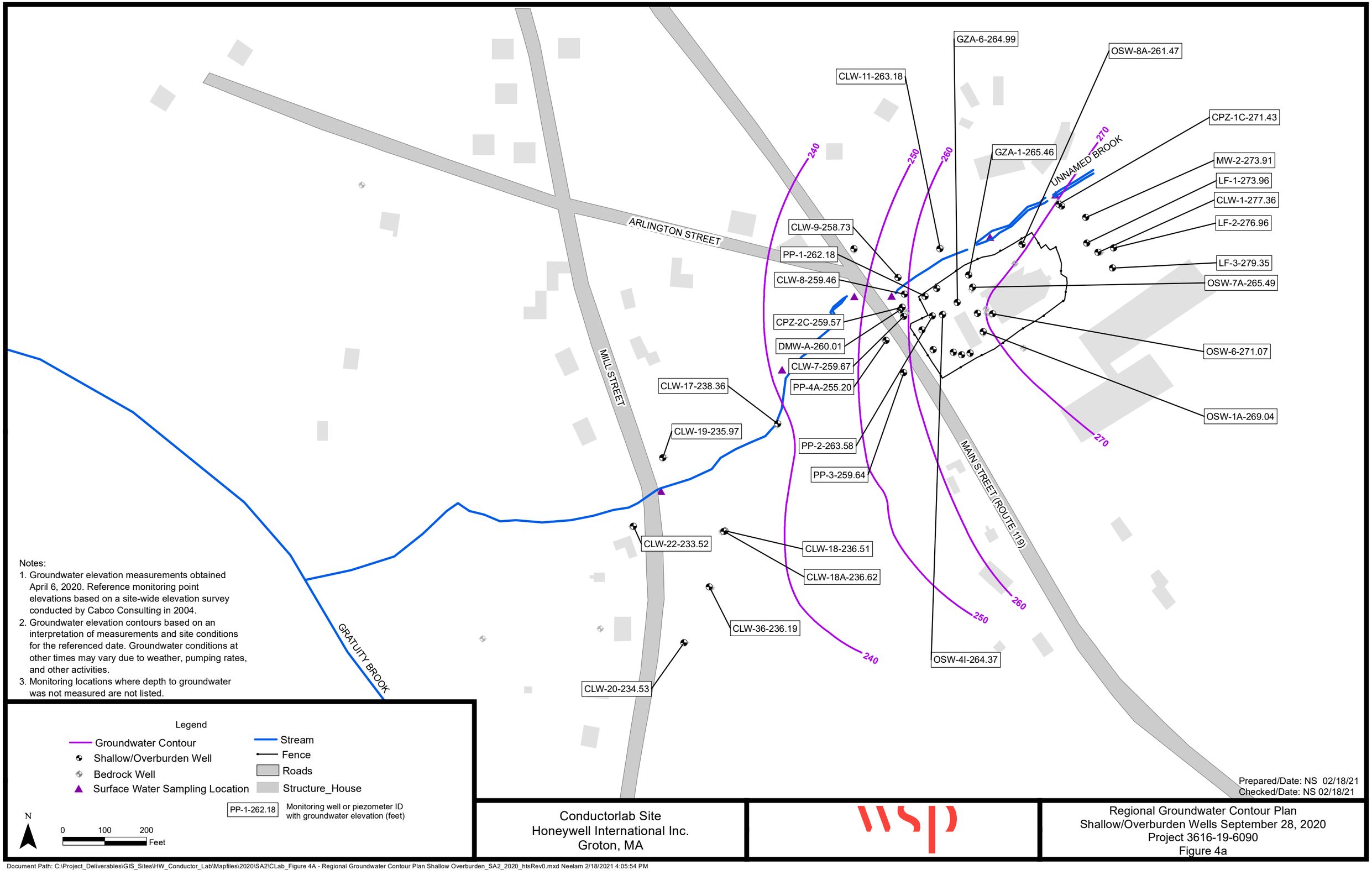
Prepared/Date: JMM 10/12/22
Checked/Date: TR 10/12/22

Conductorlab Site
Honeywell International Inc.
Groton, Massachusetts

wsp

Wetlands
Project 3617-17-7412
Figure 3

Document Path: \\wfd-fs1\Projects\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLabs\MapDocuments\Post RAO Jul-Dec11\Figure3_11X17_LS.mxd



Notes:

1. Groundwater elevation measurements obtained April 6, 2020. Reference monitoring point elevations based on a site-wide elevation survey conducted by Cabco Consulting in 2004.
2. Groundwater elevation contours based on an interpretation of measurements and site conditions for the referenced date. Groundwater conditions at other times may vary due to weather, pumping rates, and other activities.
3. Monitoring locations where depth to groundwater was not measured are not listed.

Legend

- Groundwater Contour
- Shallow/Overburden Well
- Bedrock Well
- Surface Water Sampling Location
- Stream
- Fence
- Roads
- Structure_House

PP-1-262.18 — Monitoring well or piezometer ID with groundwater elevation (feet)

N

0 100 200 Feet

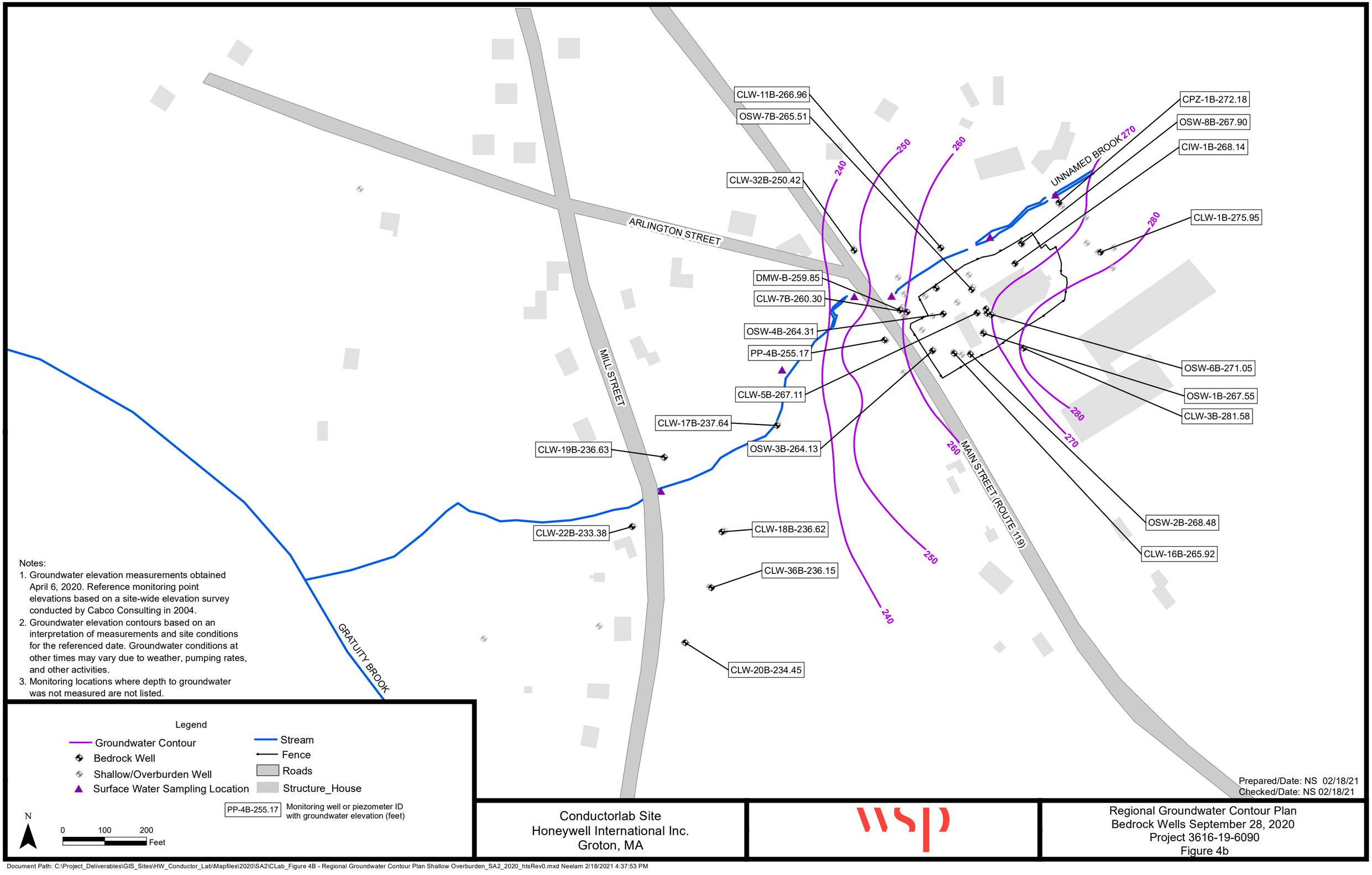
Prepared/Date: NS 02/18/21
Checked/Date: NS 02/18/21

Conductorlab Site
Honeywell International Inc.
Groton, MA

wsp

Regional Groundwater Contour Plan
Shallow/Overburden Wells September 28, 2020
Project 3616-19-6090
Figure 4a

Document Path: C:\Project_Deliverables\GIS_Sites\HW_Conductor_Lab\Mapfiles\2020\SA2\CLab_Figure 4A - Regional Groundwater Contour Plan Shallow Overburden_SA2_2020_htsRev0.mxd Neelam 2/18/2021 4:05:54 PM



Conductorlab Site
Honeywell International Inc.
Groton, MA

wsp

Regional Groundwater Contour Plan
Bedrock Wells September 28, 2020
Project 3616-19-6090
Figure 4b

Document Path: C:\Project_Deliverables\GIS_Sites\HW_Conductor_Lab\Mapfiles\2020\SA2\CLab_Figure 4B - Regional Groundwater Contour Plan Shallow Overburden_SA2_2020_htsRev0.mxd Neelam 2/18/2021 4:37:53 PM

MassDEP - Bureau of Waste Site Cleanup

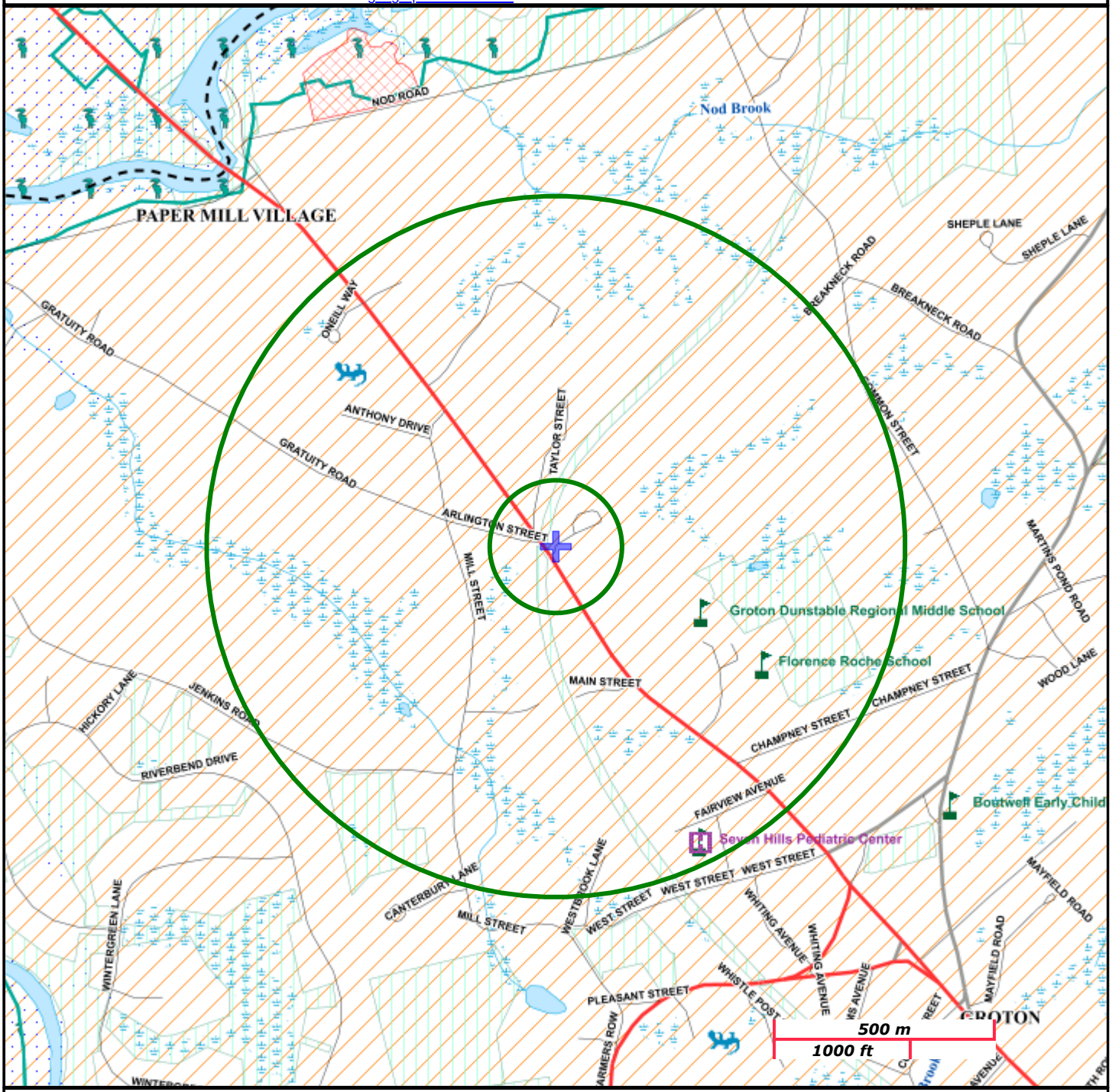
Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

Site Information:

420 MAIN STREET GROTON, MA
2-000000053
NAD83 UTM Meters:
4721705mN , 288094mE (Zone: 19)
June 13, 2022

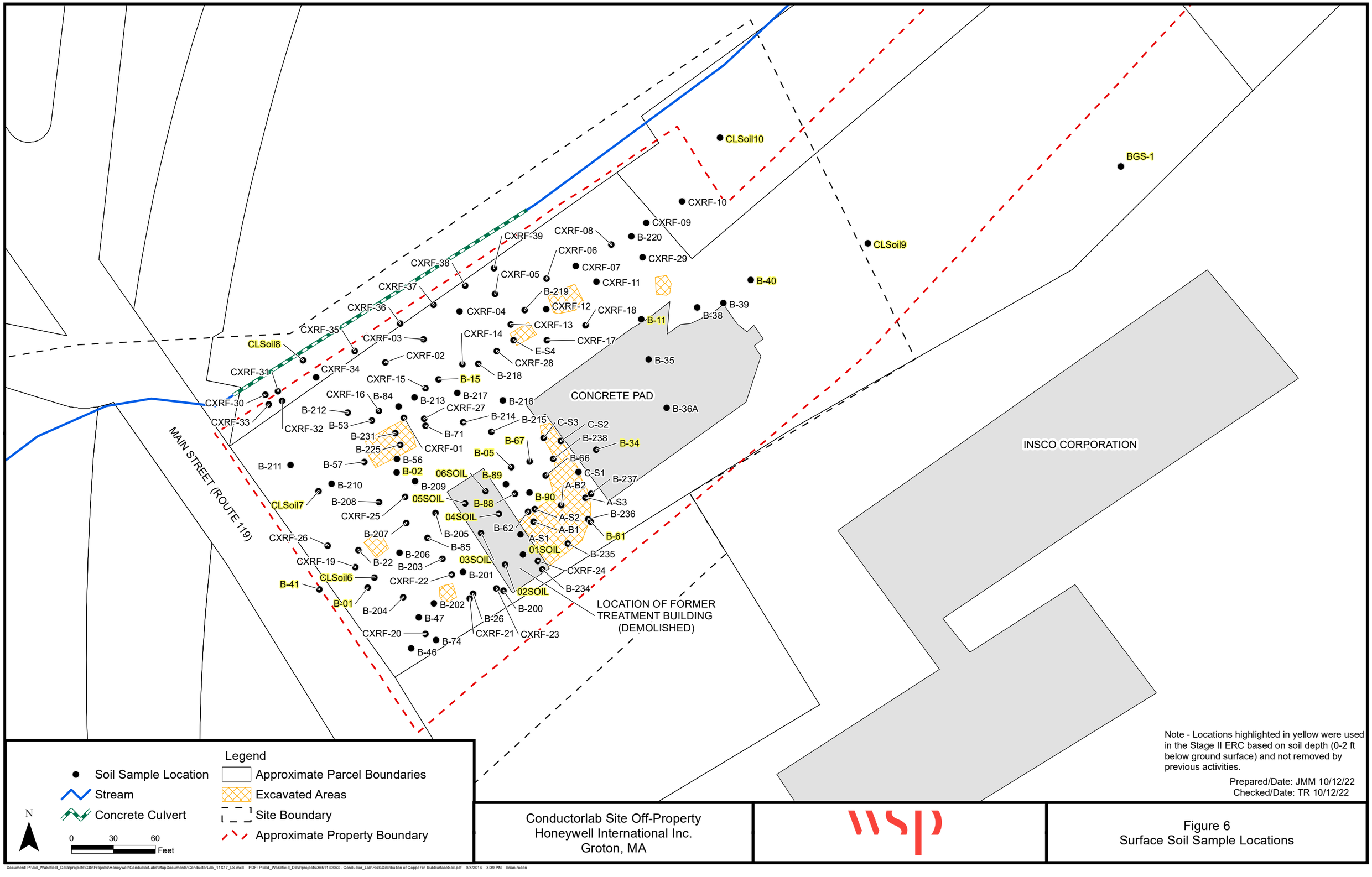
The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: https://www.mass.gov/orgs/massgis-bureau-of-geographic-information.

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct
Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam
Aquifers: Medium Yield, High Yield, EPA Sole Source
Non Potential Drinking Water Source Area: Medium, High (Yield)
PWS Protection Areas: Zone II, IWPA, Zone A
Hydrography: Open Water, PWS Reservoir, Tidal Flat
Wetlands: Freshwater, Saltwater, Cranberry Bog
FEMA 100yr Floodplain; Protected Open Space; ACEC
NHESP Pri-Hab of Rare Species; Vernal Pool: Cert., Potential
Solid Waste Landfill; PWS: Com.GW,SW, Emerg., Non-Com.

Figure 5. Phase I Map



Note - Locations highlighted in yellow were used in the Stage II ERC based on soil depth (0-2 ft below ground surface) and not removed by previous activities.

Prepared/Date: JMM 10/12/22
Checked/Date: TR 10/12/22

Conductorlab Site Off-Property
Honeywell International Inc.
Groton, MA

wsp

Figure 6
Surface Soil Sample Locations

Document: P:\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLabs\MapDocuments\ConductorLab_11X17_LS.mxd PDF: P:\old_Wakefield_Data\projects\3651130053 - Conductor_Lab\Risk\Distribution of Copper in SubSurfaceSoil.pdf 9/8/2014 3:39 PM brian.roden

CSW-BKG001

CSW-BKG002

CSW-1

CSW-18

CSW-19

CSW-2

CSW-3A

CSW-3

CSW-4

CSW-5

MAIN STREET

MILL STREET

CSW-1	Cr	Cr^{+6}
Dec-20	1.6 J	5.8 J
Apr-21	5.0 U	10 U
Jun-21	5.0 U	10 U
Sep-21	5.0 U	10 U

CSW-2	Cr	Cr^{+6}
Dec-20	5.0 U	10 U
Apr-21	5.0 U	10 U
Jun-21	2.9 J	10 U
Sep-21	5.0 U	10 U

CSW-3	Cr	Cr^{+6}
Dec-20	42	48
Apr-21	28	7.3 J
Jun-21	66	55
Sep-21	28	32

CSW-3A	Cr	Cr^{+6}
Dec-20	26	42
Apr-21	27	9.7 J
Jun-21	71	63
Sep-21	31	19

CSW-4	Cr	Cr^{+6}
Dec-20	27	52
Apr-21	26	12
Jun-21	59	56
Sep-21	31	34

CSW-5	Cr	Cr^{+6}
Dec-20	20	30
Apr-21	17	10 U
Jun-21	6.6	10 U
Sep-21	9.2	9.4 J

Legend

- Surface Water Sampling Location
- Stream
- Approximate Parcel Boundaries

N

0 50 100 Feet

Notes:

Pink highlight indicates value exceeds:
- Cr: AWQC freshwater criterion continuous concentration (CCC) (74 µg/L)
- Cr^{+6}: Site-specific no-oberserved-effect-concentration (60 µg/L)

Orange highlight indicates value exceeds:
- Cr^{+6}: Site-specific low-observed-effect-concentration (90 µg/L)

Prepared/Date: EFB 10/12/22
Checked/Date: CTM 10/12/22

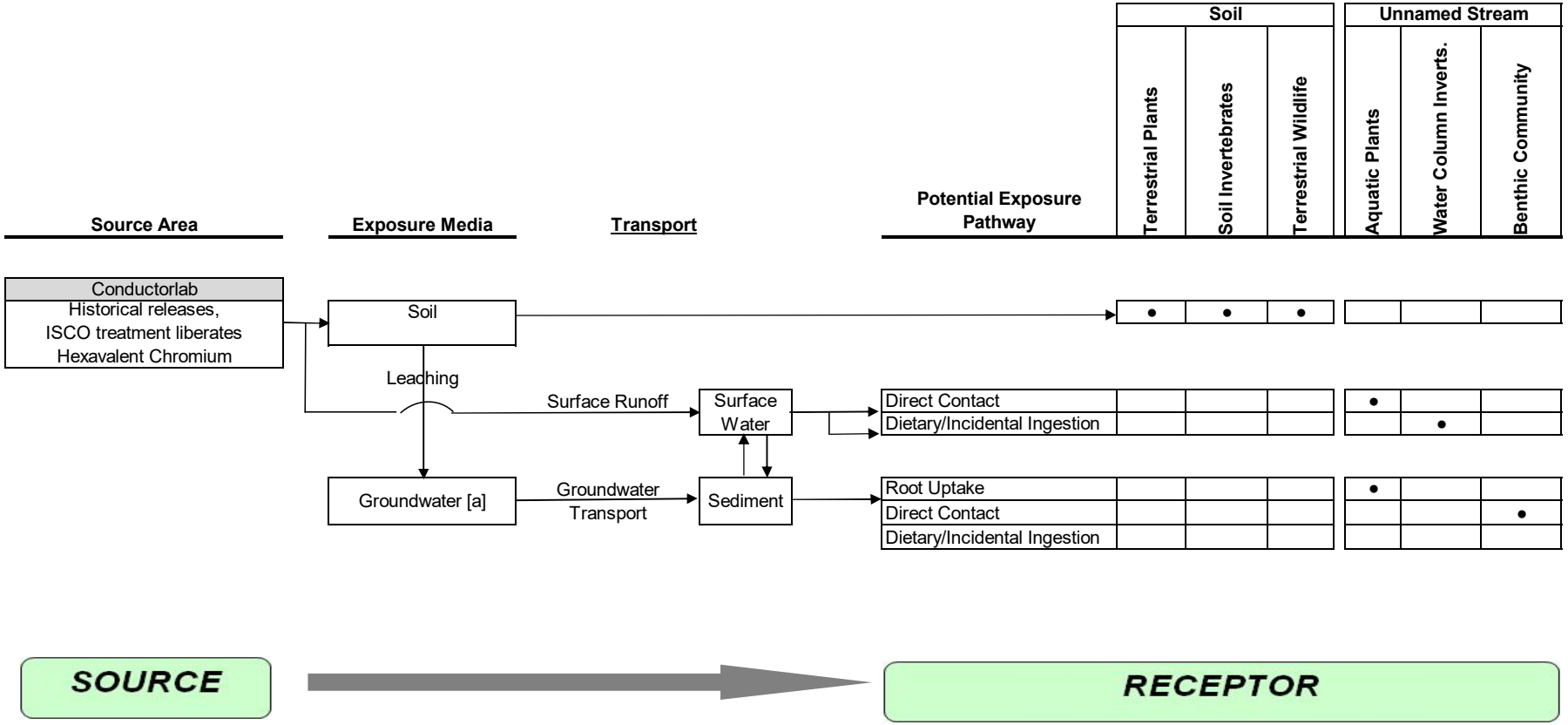
Conductorlab Site Off-Property
Honeywell International Inc.
Groton, MA

wsp

Figure 7
Cr and Cr+6 Concentrations
in Surface Water (2020-2021)

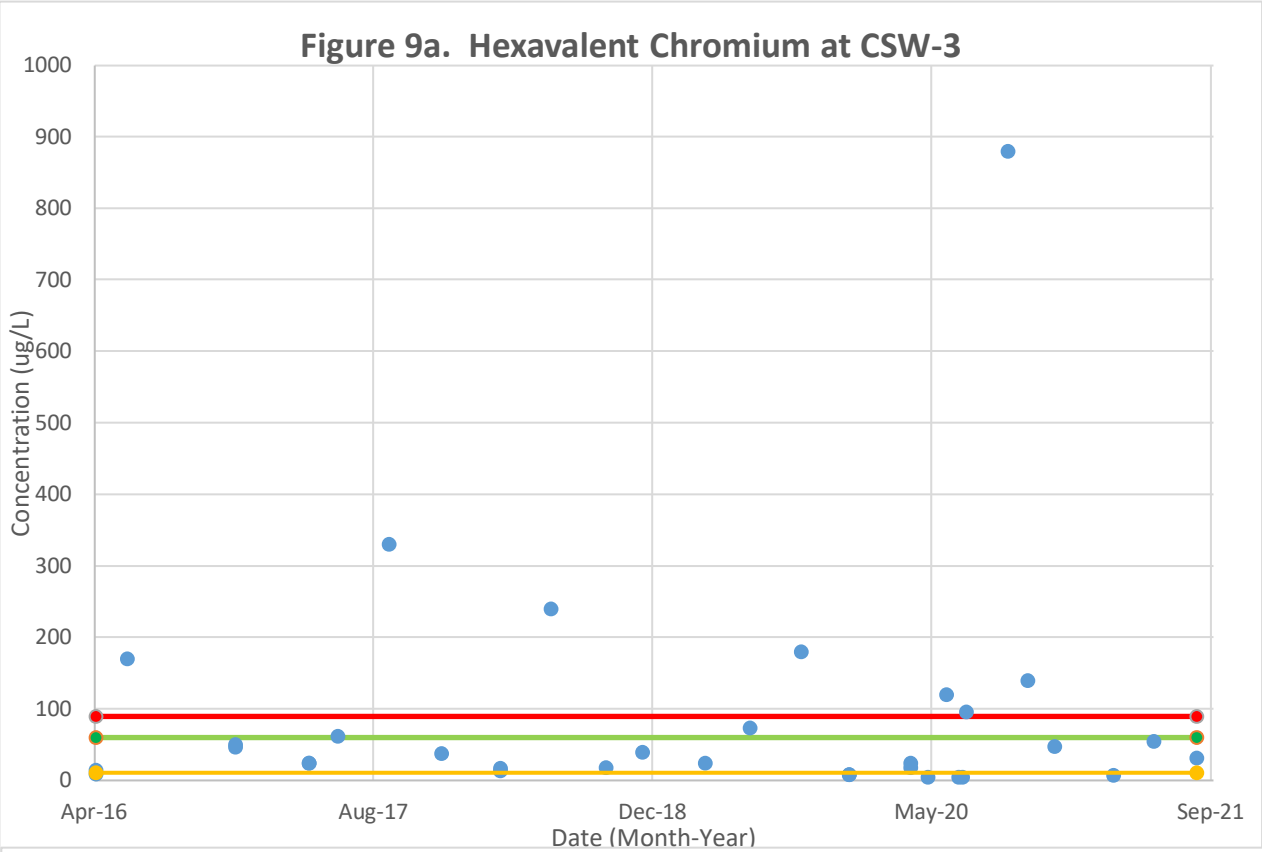
Document: \\wfd-fs1\Projects\old_Wakefield_Data\projects\GIS\Projects\Honeywell\ConductorLabs\MapDocuments\ConductorLab_11X17_LS_SWSD.mxd

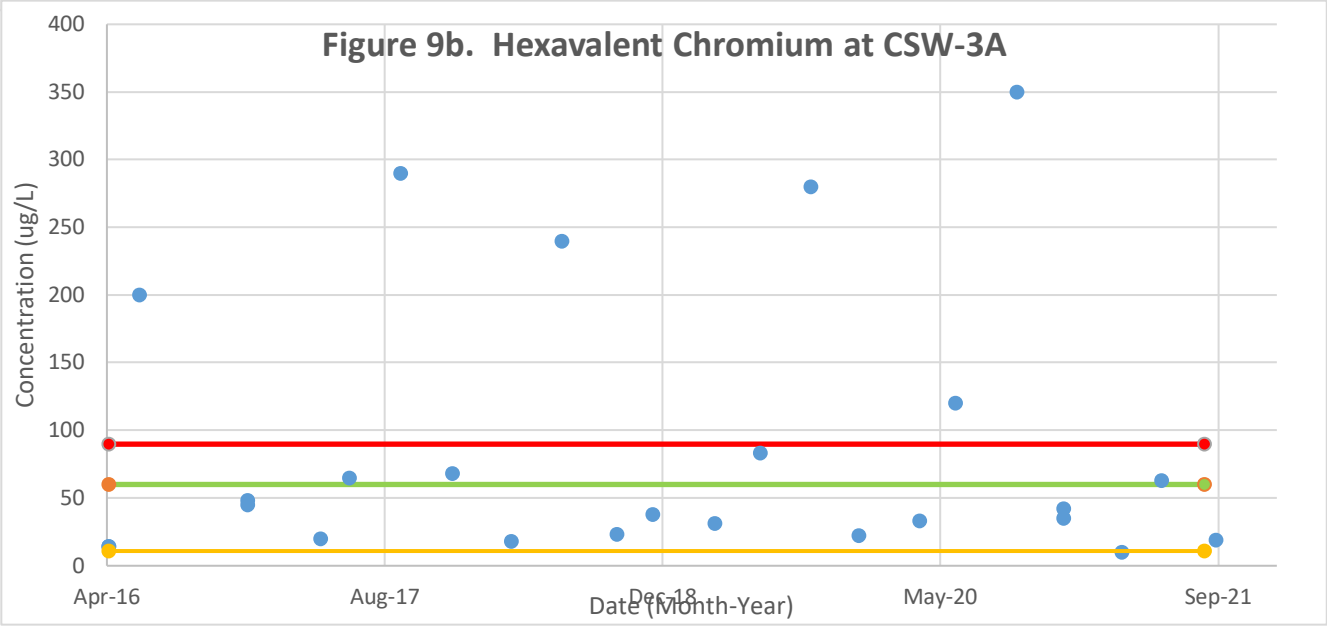
Figure 8. Ecological Conceptual Site Model
Updated Ecological Risk Assessment
Conductorlab Site,
Groton, MA



Notes:
● - Indicates a complete exposure pathway.
→ Indicates transport pathway is present.
Blank cell - indicates that the exposure pathway is incomplete

[a] The only important groundwater contamination migration pathway for environmental receptors is flow into the unnamed stream adjacent to and northwest of the Conductorlab Property. Groundwater contamination is not flowing upwards into the freshwater forested/shrub wetland south of Main Street and is not flowing into Gratuity Brook.





Created by: AMR 6/7/2022

Checked by: SEB 6/15/2022

Notes:

Green line indicates the No-Observed-Effects-concentration (NOEC) = 60 ug/L.

Red line indicates the Lowest-Observed-Effects-concentration (LOEC) = 90 ug/L.

Orange line indicates the Massachusetts Surface Water Quality Standard (11 ug/L)

APPENDIX A
PHOTOLOG

APPENDIX A.

PHOTOLOG



Photo 1. Unnamed stream during wet conditions facing south between background locations BKG001 and BKG002. Conductorlab property is on the left side, private property is on the right side.



Photo 2. Unnamed stream at CSW-2/CSD-2 during wet conditions. Photo faces north, with Conductolab on the right side and private property on the left side.



Photo 3. Unnamed stream emergicng from 24” concerte culvert into the open basin at CSW-3, upstream of Main Street durng wet periods.



Photo 4. One of two catch basins discharging from Main Street into CSW/CSD-3.



Photo 5. CSW-3A, located at the culvert on the downstream side of Main Street.



Photo 6. Photo of agricultural field upstream of Conductorlab site on west side of unnamed stream.



Photo 7. Example of caddisfly (Trichoptera) larvae living in casings constructed in the unnamed stream. Caddisfly larvae are considered pollution sensitive and their presence indicates very good water quality.



Photo 8. Example of stonefly (Plecoptera) larvae living in the unnamed stream (April 4, 2019). Stonefly larvae are considered pollution sensitive and their presence indicates very good water quality.



Photo 9. Large crayfish observed at CSW-3A open basin over multiple sampling event, indicating very good water quality.

Honeywell
THE POWER OF CONNECTED

APPENDIX B
SURFACE WATER DATA SUMMARY

The primary detected OHM for surface water, sediment, and groundwater presently include:

- TCE and daughter projects from solvents at the former facility, and
- Chromium and hexavalent chromium mobilized as a result of ISCO treatment.

These OHM were identified as primary OHM for the Disposal Site based on investigations and risk characterizations dating as far back as 1993 (HMM Associates, 1993).

Table B-1 provides a focused summary of the primary detected OHM in surface water samples that were collected since January 2016 and considered in the ecological risk assessment.

Table B-2 provides a summary of all surface water data collected since January 2016 and includes analytes that are not considered to be Site-related.

Table B-3 compares maximum concentrations of all OHM shown in **Table B-2** to the ecological screening benchmarks for surface water (**Table 2**). This comparison is provided to supplement the Stage I ES for surface water (**Table 4**) and demonstrate that historical decisions to focus on chlorinated VOCs and chromium are still valid.

Table B-2 and **Table B-3** indicate that very few VOCs other than chlorinated VOCs were detected in surface water. These non-site-related OHM were detected at very low frequency or low concentrations, indicating that they not site related or unlikely to be considered a significant risk to aquatic life.

For example, 1,4-dioxane, bromodichloromethane, and chloroform were each detected in only 1 of 95 samples, and methane was detected in 6 of 20 samples. Acetone was detected in 14 samples and is likely a laboratory artifact. These OHM are unlikely to be site-related.

Calcium, iron, magnesium, potassium, and sodium were detected in all samples; however these analytes are considered essential nutrients and are not assessed as contaminants.

Aluminum, antimony, cadmium, lead, mercury, selenium, silver, thallium, and vanadium were not detected. Risks from arsenic, beryllium, and cobalt are not significant because each of these chemicals was detected in less than 2% of surface water samples

Concentrations of nickel and zinc are below Massachusetts SWQS (52 ug/L and 120 ug/L, respectively). No Massachusetts SWQS are available for barium or manganese, but USEPA Region IV provides secondary chronic screening values for both. Barium concentrations are less than the Region IV chronic value. The maximum manganese concentration (1,500 ug/L) was detected at CSW-BKG001 which is the upstream background sample; in 60 of the remaining 64 samples were, manganese was either not detected or was detected below the secondary USEPA Region IV value indicating that risks associated with these chemicals are unlikely to be significant.

Copper was also identified as a study compound in the 1993 Phase II Risk Characterization (HMM Associates, 1993). The current NRWQC for copper, upon which the Massachusetts SWQS is based, was revised in 2007 from a hardness-based criterion of 9 ug/L to one that that requires a biotic ligand (BLM) model to calculate a numerical value (USEPA, 2007). In addition to copper concentrations, other required surface water chemistry input parameters required to run the BLM include temperature, pH, dissolved organic carbon (DOC), dissolved inorganic carbon (DIC), and other major geochemical cations (calcium, magnesium, sodium, and potassium) and anions (chloride, sulfate). As controlling the hexavalent chromium released from ISCO treatment had become the focus of site activities, these additional parameters needed to refine the NRWQC for copper were not collected. However, since 2016, average copper concentrations at each surface water location (CSW-2 CSW-3, CSW-3A, CSW-4, and CSW-5) have been less than 9 ug/L, indicating that copper is unlikely to be a significant risk to the aquatic community.

Appendix B Table 1. Surface Water Data Summary - Site-Related Parameters
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Parameter [a]	CSW-2	CSW-2	CSW-2	CSW-2	CSW-2	CSW-2	CSW-2	CSW-2	CSW-2	CSW-2	CSW-2	CSW-2	CSW-2	CSW-2	CSW-2	CSW-2	CSW-2	CSW-2 DUP	CSW-2	CSW-3	CSW-3 DUP	CSW-3
	Apr-16	Dec-16	Apr-17	Jun-17	Sep-17	Dec-17	Apr-18	Oct-18	Dec-18	Apr-19	Jun-19	Dec-19	Apr-20	Nov-20	Dec-20	Apr-21	Jun-21	Jun-21	Sep-21	Apr-16	Apr-16	Jun-16
VOCs (ug/L)																						
Tetrachloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1	---	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.61 J	0.57 J	6.8
cis-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Metals (ug/L)																						
Hexavalent Chromium (total fraction)	5 U	5 U	5 U	6.7 J	10 U	10 U	10 U	10 R	14	8.8 J	10 UJ	10 U	19	10 UJ	10 U	10 U	10 U	10 U	10 U	9.5 J	15	170
Chromium, All forms (dissolved fraction)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 U	---	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 J	31 J	190

Notes:
[a] Only site-related anlaytes are shown.

U = not detected above the indicated detection limit;
J = value was estimated
- not analyzed

Appendix B Table 1. Surface Water Data Summary - Site-Related Parameters
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Parameter [a]	CSW-3	CSW-3 DUP	CSW-3	CSW-3 DUP	CSW-3	CSW-3	CSW-3	CSW-3	CSW-3 DUP	CSW-3	CSW-3	CSW-3	CSW-3	CSW-3	CSW-3	CSW-3	CSW-3 DUP	CSW-3	CSW-3 DUP	CSW-3
	Dec-16	Dec-16	Apr-17	Apr-17	Jun-17	Sep-17	Dec-17	Apr-18	Apr-18	Jul-18	Oct-18	Dec-18	Apr-19	Jun-19	Sep-19	Dec-19	Dec-19	Apr-20	Apr-20	May-20
VOCs (ug/L)																				
Tetrachloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.46 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0	1.0 U	1.0 U	1.0 U	1.0 U	---
Trichloroethene	2.3	2.3	1.2	1.4	1.8	10	2.8	0.74 J	1.0	18	1.3	1.0 U	1.1	3.1	39	0.73 J	0.76 J	0.58 J	0.62 J	---
cis-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.87 J	1.0 U	1.0 U	1.0 U	1.0	1.0 U	1.0 U	1.0 U	1.0 U	2.3	1.0 U	1.0 U	1.0 U	1.0 U	---
trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---
Vinyl Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---
Metals (ug/L)																				
Hexavalent Chromium (total fraction)	50	47	24	24	62	330	38	14	17	240	18 J	40	24	74 J	180 J	8.2 J	8.2 J	24	18	10 U
Chromium, All forms (dissolved fraction)	46	46	23	28	47	320	47	14	14	230	27	21	22	71	440	14	13	11	12	16

Notes:
[a] Only site-related anlaytes are shown.

U = not detected above the indicated detection l
J = value was estimated
- not analyzed

Appendix B Table 1. Surface Water Data Summary - Site-Related Parameters
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Parameter [a]	CSW-3	CSW-3	CSW-3	CSW-3	CSW-3	CSW-3	CSW-3	CSW-3	CSW-3	CSW-3	CSW-3A	CSW-3A	CSW-3A	CSW-3A	CSW-3A	CSW-3A	CSW-3A	CSW-3A	CSW-3A	CSW-3A	CSW-3A	CSW-3A	CSW-3A	CSW-3A	CSW-3A
	Jun-20	Jul-20	Jul-20	Jul-20	Sep-20	Nov-20	Dec-20	Apr-21	Jun-21	Sep-21	Apr-16	Jun-16	Dec-16	Apr-17	Jun-17	Sep-17	Dec-17	Apr-18	Jul-18	Oct-18	Dec-18	Apr-19	Jun-19	Sep-19	Dec-19	Apr-20
VOCs (ug/L)																										
Tetrachloroethene	1.0 U	---	---	---	1.6	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	0.41 J	1.0 U	1.0 U
Trichloroethene	9.0	---	---	---	90	---	1.5	1.2	3.1	1.0 U	0.76 J	4.5	2.4	1.1	1.8	7.6	2.9	0.81 J	7.3	1.5	1.2	---	2.4	15	0.82 J	0.76 J
cis-1,2-Dichloroethene	0.95 J	---	---	---	5.9	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	---	---	---	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	1.0 U	---	---	---	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U
Metals (ug/L)																										
Hexavalent Chromium (total fraction)	120	10 U	10 U	96	880	140 J	48	7.3 J	55	32	14	200	45	20	65	290	68	18	240	23 J	38	31	83 J	280 J	22	33
Chromium, All forms (dissolved fraction)	140	---	---	---	830	---	26	25	68	28	13	180	49	22	53	270	51	20	230	31	28	28	78	300	16	15

Notes:
[a] Only site-related anlaytes are shown.

U = not detected above the indicated detection l
J = value was estimated
- not analyzed

Appendix B Table 1. Surface Water Data Summary - Site-Related Parameters
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Parameter [a]	CSW-3A	CSW-3A	CSW-3A	CSW-3A DUP	CSW-3A	CSW-3A	CSW-3A	CSW-4	CSW-4	CSW-4	CSW-4	CSW-4	CSW-4	CSW-4	CSW-4	CSW-4	CSW-4	CSW-4
	Jun-20	Sep-20	Dec-20	Dec-20	Apr-21	Jun-21	Sep-21	Apr-16	Dec-16	Apr-17	Jun-17	Dec-17	Apr-18	Dec-18	Apr-19	Jun-19	Dec-19	Apr-20
VOCs (ug/L)																		
Tetrachloroethene	1.0 U	0.46 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U
Trichloroethene	4.4	22	1.6	1.7	1.2	2.8	3.1	0.64 J	1.4	0.61 J	0.70 J	1.5	0.74 J	0.83 J	---	0.60 J	0.60 J	0.52 J
cis-1,2-Dichloroethene	1.0 U	3.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U
Vinyl Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U
Metals (ug/L)																		
Hexavalent Chromium (total fraction)	120	350	42	35	9.7 J	63	19	14	48	20.0	58	68	27.0	39.0	26.0	59 J	9.4 J	39
Chromium, All forms (dissolved fraction)	130	840	25	26	27	71	31	12	47	20	45	51	21	26	26	58	16	15

Notes:
[a] Only site-related anlaytes are shown.

U = not detected above the indicated detection l
J = value was estimated
- not analyzed

Appendix B Table 1. Surface Water Data Summary - Site-Related Parameters
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Parameter [a]	CSW-4	CSW-4	CSW-4	CSW-4	CSW-5	CSW-5	CSW-5	CSW-5	CSW-5	CSW-5	CSW-5	CSW-5	CSW-5	CSW-5	CSW-5	CSW-5	CSW-5	CSW-5	CSW-5	CSW-5	CSW-5	CSW-5	CSW-5	CSW-5
	Dec-20	Apr-21	Jun-21	Sep-21	Apr-16	Jun-16	Dec-16	Apr-17	Jun-17	Sep-17	Dec-17	Apr-18	Jul-18	Oct-18	Dec-18	Apr-19	Jun-19	Sep-19	Dec-19	Apr-20	Jun-20	Dec-20	Apr-21	Jun-21	Sep-21
VOCs (ug/L)																									
Tetrachloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	1.0	0.73 J	0.76 J	2.8	1.0 U	1.2	1.0 U	0.70 J	1.0 U	1.4	0.57 J	1.0 U	1.8	1.0 U	0.50 J	---	0.72 J	1.9	1.0 U	1.0 U	1.6	1.0 U	1.0 U	0.64 J	0.76 J
cis-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	0.89 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	---	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Metals (ug/L)																									
Hexavalent Chromium (total fraction)	52	12	56	34	8.6 J	24 J	30	13	17	6.5 J	37	14	22	5.4 J	24	22	11 J	10 UJ	10 U	24	10 U	30	10 U	10 U	9.4 J
Chromium, All forms (dissolved fraction)	27	26	59	31	12	12	25	12	5.7	8.6	20	17	9.8	14	17	18	8.7	7.3	14	14	10	20	17	6.6	9.2

Created by: AMR 6/7/2022
Checked by: SEB 6/15/2022

Notes:
[a] Only site-related anlaytes are shown.

U = not detected above the indicated detection l
J = value was estimated
- not analyzed

Appendix B-2. Surface Water Data Summary - All Parameters
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

| Location | CSW-1 | | CSW-1 | | CSW-1 | | CSW-1 | | CSW-1 | | CSW-2 | | CSW-2 | | CSW-2

Appendix B-2. Surface Water Data Summary - All Parameters
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

| CSW-2 4/6/2020 SW C040620-CSW2 REG D | | CSW-2 11/2/2020 SW C110220-CSW2 REG T | | CSW-2 12/21/2020 SW C122120-CSW2 REG T | | CSW-2 12/21/2020 SW C122120-CSW2 REG D | | CSW-2 4/5/2021 SW C045521-CSW2 REG T | | CSW-2 4/5/2021 SW C04521-CSW2 REG D | | CSW-2 6/16/2021 SW C061621-CSW2 REG T | | CSW-2 6/16/2021 SW C061621-CSW2DUI FD T | | CSW-2 6/16/2021 SW C061621-CSW2 REG D | | CSW-2 6/16/2021 SW C061621-CSW2DUI FD D | | CSW-2 9/27/2021 SW C092721-CSW2 REG T | | CSW-2 9/27/2021 SW C092721-CSW2 REG D | | CSW-3 6/3/2016 W-SW C06032016-CSW3 REG T | | CSW-3 6/3/2016 W-SW C06032016-CSW3 REG D | | CSW-3 12/14/2016 W-SW C121416-CSW3 REG T | | CSW-3 12/14/2016 W-SW C121416-CSW3DUI FD T | | CSW-3 12/14/2016 W-SW C121416-CSW3 REG D | | CSW-3 12/14/2016 W-SW C121416-CSW3DUI FD D | | CSW-3 4/24/2017 W-SW C042417-CSW3 REG T | | CSW-3 4/24/2017 W-SW C042417-CSW3 DU FD T | | CSW-3 4/24/2017 W-SW C042417-CSW3 REG D | | CSW-3 4/24/2017 W-SW 042417-CSW3 DU FD D | | CSW-3 6/15/2017 W-SW C061517-CSW3 REG T | | CSW-3 6/15/2017 W-SW C061517-CSW3 REG D | | CSW-3 9/15/2017 W-SW C091517-CSW3 REG T | | CSW-3 9/15/2017 W-SW C091517-CSW3 REG D | | CSW-3 12/18/2017 W-SW C121817-CSW3 REG T | | CSW-3 12/18/2017 W-SW C121817-CSW3 REG D | | CSW-3 4/2/2018 W-SW CO40218-CSW3 REG T | | CSW-3 4/2/2018 W-SW CO40218-CSW3DU FD T | | CSW-3 4/2/2018 W-SW CO40218-C REG D | |
|---|---|---

Appendix B-2. Surface Water Data Summary - All Parameters
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

8 SW3	CSW-3 4/2/2018 W-SW C040218-CSW3DU FD D		CSW-3 7/2/2018 W-SW C070218-CSW3 REG T		CSW-3 7/2/2018 W-SW C070218-CSW3 REG D		CSW-3 10/9/2018 W-SW C100918-CSW3 REG T		CSW-3 10/9/2018 W-SW C100918-CSW3 REG D		CSW-3 12/13/2018 W-SW C121318-CSW3 REG T		CSW-3 12/13/2018 W-SW C121318-CSW3 REG D		CSW-3 4/4/2019 W-SW C040419-CSW3 REG T		CSW-3 4/4/2019 W-SW C040419-CSW3 REG D		CSW-3 6/24/2019 W-SW C062419-CSW3 REG T		CSW-3 6/24/2019 W-SW C062419-CSW3 REG NA		CSW-3 6/24/2019 W-SW C062419-CSW3 REG N		CSW-3 9/23/2019 SW C092319-CSW3 REG T		CSW-3 9/23/2019 SW C092319-CSW3 REG D		CSW-3 12/19/2019 SW C121919-CSW3 REG T		CSW-3 12/19/2019 SW C121919-CSW3 DU FD T		CSW-3 12/19/2019 SW C121919-CSW3 REG D		CSW-3 12/19/2019 SW C121919-CSW3 DU FD D		CSW-3 4/6/2020 SW C040620-CSW3 REG T		CSW-3 4/6/2020 SW C040620-CSW3 DU FD T		CSW-3 4/6/2020 SW C040620-CSW3 REG D		CSW-3 4/6/2020 SW C040620-CSW3 DU FD D		CSW-3 5/7/2020 SW C050720-CSW3 REG T		CSW-3 5/7/2020 SW C050720-CSW3 REG D		CSW-3 6/10/2020 SW C061020-CSW3 REG T		CSW-3 6/10/2020 SW C061020-CSW3 REG D		CSW-3 7/1/2020 SW C070120-CSW3 REG T		CSW-3 7/8/2020 SW C070820-CSW3 REG T		CSW-3 7/15/2020 SW C071520-CSW3 REG T		CSW-3 9/28/2020 SW C092820-CSW3 REG T	
Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			0.5	U			0.5	U			0.5	U			0.5	U			0.5	U					0.5	U			0.5	U	0.5	U					0.5	U	0.5	U									0.5	U									0.5	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			5	U			5	U			5	U			5	U			5	U					5	U			5	U	5	U					5	U	5	U									5	U									5	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			50	U			50	U			50	UJ			50	U			50	U					50	U			50	U	50	U					50	U	50	U									50	U									50	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			10	U			10	U			10	U			10	U			10	U					10	U			10	U	10	U					10	U	10	U									10	U									10	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			10	U			10	U			10	U			10	U			10	U					10	U			10	U	10	U					10	U	10	U									10	U									10	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			10	U			10	U			10	U			10	U			10	U					10	U			10	U	10	U					10	U	10	U									10	U									10	U
			50	U			50	U			50	U			50	U			50	U					50	U			50	U	50	U					50	U	50	U									50	U									50	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			0.5	U			0.5	U			0.5	U			0.5	U			0.5	U					0.5	U			0.5	U	0.5	U					0.5	U	0.5	U									0.5	U									0.5	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			2	U			2	U			2	U			2	U			2	U					2	U			2	U	2	U					2	U	2	U									2	U									2	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			10	U			10	U			10	U			10	U			10	U					10	U			10	U	10	U					10	U	10	U									10	U									10	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			2	U			2	U			2	U			2	U			2	U					2	U			2	U	2	U					2	U	2	U									2	U									2	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			2	U			2	U			2	U			2	U			2	U					2	U			2	U	2	U					2	U	2	U									2	U									2	U
			1				1	U			1	U			1	U			1	U					2.3				1	U	1	U					1	U	1	U									**0.95**	**J**									5.9	
			0.4	U			0.4	U			0.4	U			0.4	U			0.4	U					0.4	U			0.4	U	0.4	U					0.4	U	0.4	U									0.4	U									0.4	U
			0.5	U			0.5	U			0.5	U			0.5	U			0.5	U					0.5	U			0.5	U	0.5	U					0.5	U	0.5	U									0.5	U									0.5	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			10	U			10	U			10	U			10	U																																												
			5	U			5	U			5	U			5	U			5	U					5	U			5	U	5	U					5	U	5	U									5	U									5	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			0.4	U			0.4	U			0.4	U			0.4	U			0.4	U					0.4	U			0.4	U	0.4	U					0.4	U	0.4	U									0.4	U									0.4	U
																			10	U					10	U			10	U	10	U					10	U	10	U									10	U									10	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			2	U			2	U			2	U			2	U			2	U					2	U			2	U	2	U					2	U	2	U									2	U									2	U
																																																					6.3		**2.8**	**J**	6.8		11	
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			5	U			5	U			5	U			5	U																					5	U	5	U									5	U									5	U
																			5	U					5	U			5	U	5	U																												
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			5	U			5	U			5	U			5	U			5	U					5	U			5	U	5	U					5	U	5	U									5	U									5	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			0.46	**J**			1	U			1	U			1	U			1	U					1				1	U	1	U					1	U	1	U									1	U									1.6	
			10	U			10	U			10	U			10	U			10	U					10	U			10	U	10	U					10	U	10	U									10	U									10	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			0.4	U			0.4	U			0.4	U			0.4	U			0.4	U					0.4	U			0.4	U	0.4	U					0.4	U	0.4	U									0.4	U									0.4	U
			18				**1.3**				1	U			**1.1**				**3.1**						**39**				**0.73**	**J**	**0.76**	**J**					**0.58**	**J**	**0.62**	**J**									**9**										**90**	
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
			1	U			1	U			1	U			1	U			1	U					1	U			1	U	1	U					1	U	1	U									1	U									1	U
					200	U			200	U			200	U			200	U			200	U					200	U					200	U	200	U					200	U	200	U							200	U								
					20	U			20	U			20	U			20	U			20	U					20	U					20	U	20	U					20	U	20	U							20	U								
					10	U			10	U			10	U			10	U			10	U					10	U					10	U	10	U					10	U	10	U							10	U								
					23				**24**				**19**				**17**				**18**						**21**						**21**		**20**						**20**		**20**								**20**									
					1	U			1	U			1	U			1	U			1	U					1	U					1	U	1	U					1	U	1	U							1	U								
					1	U			1	U			1	U			1	U			1	U					1	U					1	U	1	U					1	U	1	U							1	U								
	29000				**26000**				**30000**				**26000**				**25000**				**24000**						**24000**						**25000**		**25000**						**24000**		**24000**								**22000**									
	14				**230**				**27**				**21**				**22**				**71**						440						**14**		**13**						**11**		**12**				**16**				**140**		**250**		**230**		**260**		**930**	
			240				**18**	**J**			**40**				**24**				**74**	**J**					**180**	**J**			**8.2**	**J**	**8.2**	**J**					**24**		**18**						10	U			**120**				10	U	10	U	**96**		**880**	
					4	U			4	U			4	U			4	U			4	U					4	U					4	U	4	U					4	U	4	U							4	U								
J	10	U			**11**				**2.5**	**J**			**2.3**	**J**			10	U			**7.3**	**J**					**12**						10	U	**1.9**	**J**					10	U	**1.6**	**J**							**10**									
					50	U			**22**	**J**			50	U			50	U			50	U					50	U					50	U	50	U					**28**	**J**	**25**	**J**							50	U	9300		1900		870		400	
					5	U			5	U			5	U			5	U			5	U					5	U					5	U	5	U					5	U	5	U							5	U								
	2400				**2100**				**2400**				**2200**				**2100**				**1800**						**1900**						**2200**		**2200**						**2000**		**2000**								**1700**									
					63				3	U			**18**				**3.8**				**8.7**						**57**						**9.5**		**9.8**						**9.5**		**9.7**								**100**									
													0.2	U			0.2	U			0.2	U					0.2	U					0.2	U	0.2	U					0.2	U	0.2	U							0.2	U								
									10	U			10	U							**1.7**	**J**					**2.1**	**J**					10	U	10	U					10	U	10	U							**1.8**	**J**								
	3300				**4000**				**4000**				**3600**				**2900**				**3200**						**3700**						**3600**		**3600**						**3200**		**3200**								**3300**									
									10	U			10	U							10	U					10	U					10	U	10	U					10	U	10	U							10	U								
					10	U											10	U																																										
					5	U			5	U			5	U			5	U			5	U					5	U					5	U	5	U					5	U	5	U							5	U								
	35000				**26000**				**34000**				**29000**				**27000**				**24000**						**23000**						**36000**	**J-**	**36000**	**J-**					**32000**		**32000**								**20000**									
					20	U			20	U			20	U			20	U			20	U					20	U					20	U	20	U					20	U	20	U							20	U								
					10	U			10	U			10	U			10	U			10	U					10	U					10	U	10	U					10	U	10	U							10	U								
					52				50	U			50	U			50	U			50	U					50	U					50	U	50	U					50	U	50	U							50	U								

Appendix B-2. Surface Water Data Summary - All Parameters
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

CSW-3 9/28/2020 SW C092820-CSW3 REG D		CSW-3 11/2/2020 SW C110220-CSW3 REG T		CSW-3 12/21/2020 SW C122120-CSW3 REG T		CSW-3 12/21/2020 SW C122120-CSW3 REG D		CSW-3 4/5/2021 SW C045521-CSW3 REG T		CSW-3 4/5/2021 SW C04521-CSW3 REG D		CSW-3 6/16/2021 SW C061621-CSW3 REG T		CSW-3 6/16/2021 SW C061621-CSW3 REG D		CSW-3 9/27/2021 SW C092721-CSW3 REG T		CSW-3 9/27/2021 SW C092721-CSW3 REG D		CSW-3A 6/3/2016 W-SW C06032016-CSW3A REG T		CSW-3A 6/3/2016 W-SW C06032016-CSW3A REG D		CSW-3A 12/14/2016 W-SW C121416-CSW3A REG T		CSW-3A 12/14/2016 W-SW C121416-CSW3A REG D		CSW-3A 4/24/2017 W-SW C042417-CSW3A REG T		CSW-3A 4/24/2017 W-SW C042417-CSW3A REG D		CSW-3A 6/15/2017 W-SW C061517-CSW3A REG T		CSW-3A 6/15/2017 W-SW C061517-CSW3A REG D		CSW-3A 9/15/2017 W-SW C091517-CSW3A REG T		CSW-3A 9/15/2017 W-SW C091517-CSW3A REG D		CSW-3A 12/18/2017 W-SW C121817-CSW3A REG T		CSW-3A 12/18/2017 W-SW C121817-CSW3A REG D		CSW-3A 4/2/2018 W-SW C040218-CSW3A REG T		CSW-3A 4/2/2018 W-SW C040218-CSW3A REG D		CSW-3A 7/2/2018 W-SW C070218-CSW3A REG T		CSW-3A 7/2/2018 W-SW C070218-CSW3A REG D		CSW-3A 10/9/2018 W-SW C100918-CSW3A REG T		CSW-3A 10/9/2018 W-SW C100918-CSW3A REG D		CSW-3A 12/13/2018 W-SW C121318-CSW3A REG T		CSW-3A 12/13/2018 W-SW C121318-CSW3A REG D		CSW-3A 4/4/201 W-SW C040419-CS REG T	
Result	Q	Result	Q	Result	Q

Appendix B-2. Surface Water Data Summary - All Parameters
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

| | CSW-3A 4/4/2019 W-SW C040419-CSW3A REG D | | CSW-3A 6/24/2019 W-SW C062419-CSW3A REG T | | CSW-3A 6/24/2019 W-SW C062419-CSW3A REG NA | | CSW-3A 6/24/2019 W-SW C062419-CSW3A REG N | | CSW-3A 9/23/2019 SW C092319-CSW3A REG T | | CSW-3A 9/23/2019 SW C092319-CSW3A REG D | | CSW-3A 12/19/2019 SW C121919-CSW3A REG T | | CSW-3A 12/19/2019 SW C121919-CSW3A REG D | | CSW-3A 4/6/2020 SW C040620-CSW3A REG T | | CSW-3A 4/6/2020 SW C040620-CSW3A REG D | | CSW-3A 6/10/2020 SW C061020-CSW3A REG T | | CSW-3A 6/10/2020 SW C061020-CSW3A REG D | | CSW-3A 9/28/2020 SW C092820-CSW3A REG T | | CSW-3A 9/28/2020 SW C092820-CSW3A REG D | | CSW-3A 12/21/2020 SW C122120-CSW3A REG T | | CSW-3A 12/21/2020 SW 122120-CSW3A DL FD T | | CSW-3A 12/21/2020 SW C122120-CSW3A REG D | | CSW-3A 12/21/2020 SW 122120-CSW3A DL FD D | | CSW-3A 4/5/2021 SW C04521-CSW3A REG T | | CSW-3A 4/5/2021 SW C04521-CSW3A REG D | | CSW-3A 6/16/2021 SW C061621-CSW3A REG T | | CSW-3A 6/16/2021 SW C061621-CSW3A REG D | | CSW-3A 9/27/2021 SW C092721-CSW3A REG T | | CSW-3A 9/27/2021 SW C092721-CSW3A REG D | | CSW-4 12/14/2016 W-SW C121416-CSW4 REG T | | CSW-4 12/14/2016 W-SW C121416-CSW4 REG D | | CSW-4 4/24/2017 W-SW C042417-CSW4 REG T | | CSW-4 4/24/2017 W-SW C042417-CSW4 REG D | | CSW-4 6/15/2017 W-SW C061517-CSW4 REG T | | CSW-4 6/15/2017 W-SW C061517-CSW4 REG D | |
|---|---|---

Appendix B-2. Surface Water Data Summary - All Parameters
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

| CSW-4 12/18/2017 W-SW C121817-CSW4 REG T | | CSW-4 12/18/2017 W-SW C121817-CSW4 REG D | | CSW-4 4/2/2018 W-SW C040218-CSW4 REG T | | CSW-4 4/2/2018 W-SW C040218-CSW4 REG D | | CSW-4 12/13/2018 W-SW C121318-CSW4 REG T | | CSW-4 12/13/2018 W-SW C121318-CSW4 REG D | | CSW-4 4/4/2019 W-SW C040419-CSW4 REG T | | CSW-4 4/4/2019 W-SW C040419-CSW4 REG D | | CSW-4 6/24/2019 W-SW C062419-CSW4 REG T | | CSW-4 6/24/2019 W-SW C062419-CSW4 REG NA | | CSW-4 6/24/2019 W-SW C062419-CSW4 REG N | | CSW-4 12/19/2019 SW C121919-CSW4 REG T | | CSW-4 12/19/2019 SW C121919-CSW4 REG D | | CSW-4 4/6/2020 SW C040620-CSW4 REG T | | CSW-4 4/6/2020 SW C040620-CSW4 REG D | | CSW-4 12/21/2020 SW C122120-CSW4 REG T | | CSW-4 12/21/2020 SW C122120-CSW4 REG D | | CSW-4 4/5/2021 SW C040521-CSW4 REG T | | CSW-4 4/5/2021 SW C040521-CSW4 REG D | | CSW-4 6/16/2021 SW C061621-CSW4 REG T | | CSW-4 6/16/2021 SW C061621-CSW4 REG D | | CSW-4 9/27/2021 SW C092721-CSW4 REG T | | CSW-4 9/27/2021 SW C092721-CSW4 REG D | | CSW-5 6/3/2016 W-SW C06032016-CSW5 REG T | | CSW-5 6/3/2016 W-SW C06032016-CSW5 REG D | | CSW-5 12/14/2016 W-SW C121416-CSW5 REG T | | CSW-5 12/14/2016 W-SW C121416-CSW5 REG D | | CSW-5 4/24/2017 W-SW C042417-CSW5 REG T | | CSW-5 4/24/2017 W-SW C042417-CSW5 REG D | | CSW-5 6/15/2017 W-SW C061517-CSW5 REG T | | CSW-5 6/15/201 W-SW C061517-C REG D | |
|---|---|---

Appendix B-2. Surface Water Data Summary - All Parameters
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

17	CSW-5 9/15/2017 W-SW C091517-CSW5 REG T		CSW-5 9/15/2017 W-SW C091517-CSW5 REG D		CSW-5 12/18/2017 W-SW C121817-CSW5 REG T		CSW-5 12/18/2017 W-SW C121817-CSW5 REG D		CSW-5 4/2/2018 W-SW CO40218-CSW5 REG T		CSW-5 4/2/2018 W-SW CO40218-CSW5 REG D		CSW-5 7/2/2018 W-SW C070218-CSW5 REG T		CSW-5 7/2/2018 W-SW C070218-CSW5 REG D		CSW-5 10/9/2018 W-SW C100918-CSW5 REG T		CSW-5 10/9/2018 W-SW C100918-CSW5 REG D		CSW-5 12/13/2018 W-SW C121318-CSW5 REG T		CSW-5 12/13/2018 W-SW C121318-CSW5 REG D		CSW-5 4/4/2019 W-SW C040419-CSW5 REG T		CSW-5 4/4/2019 W-SW C040419-CSW5 REG D		CSW-5 6/24/2019 W-SW C062419-CSW5 REG T		CSW-5 6/24/2019 W-SW C062419-CSW5 REG NA		CSW-5 6/24/2019 W-SW C062419-CSW5 REG N		CSW-5 9/23/2019 SW C092319-CSW5 REG T		CSW-5 9/23/2019 SW C092319-CSW5 REG D		CSW-5 12/19/2019 SW C121919-CSW5 REG T		CSW-5 12/19/2019 SW C121919-CSW5 REG D		CSW-5 4/6/2020 SW C040620-CSW5 REG T		CSW-5 4/6/2020 SW C040620-CSW5 REG D		CSW-5 6/10/2020 SW C061020-CSW5 REG T		CSW-5 6/10/2020 SW C061020-CSW5 REG D		CSW-5 12/21/2020 SW C122120-CSW5 REG T		CSW-5 12/21/2020 SW C122120-CSW5 REG D		CSW-5 4/5/2021 SW C040521-CSW5 REG T		CSW-5 4/5/2021 SW C040521-CSW5 REG D		CSW-5 6/16/2021 SW C061621-CSW5 REG T	
SW5																																																		
Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	0.5	U			0.5	U			0.5	U			0.5	U			0.5	U			0.5	U					0.5	U					0.5	U			0.5	U			0.5	U			0.5	U			0.5	U			0.5	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	5	U			5	U			5	U			5	U			5	U			5	U					5	U					5	U			5	U			5	U			5	U			5	U			5	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	50	U			50	U			50	U			50	U			50	U			50	UJ					50	U					50	U			50	U			50	U			**16**	**J**			50	U			50	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	10	U			10	U			10	U			10	U			10	U			10	U					10	U					10	U			10	U			10	U			10	U			10	U			10	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	10	U			10	U			10	U			10	U			10	U			10	U					10	U					10	U			10	U			10	U			10	U			10	U			10	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	10	U			10	U			10	U			10	U			10	U			10	U					10	U					10	U			10	U			10	U			10	U			10	U			10	U
	50	U			50	U			50	U			50	U			50	U			50	U					50	U					50	U			50	U			50	U			**12**	**J**			50	U			50	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	0.5	U			0.5	U			0.5	U			0.5	U			0.5	U			0.5	U					0.5	U					0.5	U			0.5	U			0.5	U			0.5	U			0.5	U			0.5	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	2	U			2	U			2	U			2	U			2	U			2	U					2	U					2	U			2	U			2	U			2	U			2	U			2	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	10	U			10	U			10	U			10	U			10	U			10	U					10	U					10	U			10	U			10	U			10	U			10	U			10	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	2	U			2	U			2	U			2	U			2	U			2	U					2	U					2	U			2	U			2	U			2	U			2	U			2	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	2	U			2	U			2	U			2	U			2	U			2	U					2	U					2	U			2	U			2	U			2	U			2	U			2	U
	1	U			1	U			1	U			1	U			1	U			1	U					**0.89**	**J**					1	U			1	U			1	U			1	U			1	U			1	U
	0.4	U			0.4	U			0.4	U			0.4	U			0.4	U			0.4	U					0.4	U					0.4	U			0.4	U			0.4	U			0.4	U			0.4	U			0.4	U
	0.5	U			0.5	U			0.5	U			0.5	U			0.5	U			0.5	U					0.5	U					0.5	U			0.5	U			0.5	U			0.5	U			0.5	U			0.5	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	10	U			10	U			10	U			10	U			10	U																																				
	5	U			5	U			5	U			5	U			5	U			5	U					5	U					5	U			5	U			5	U			5	U			5	U			5	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	0.4	U			0.4	U			0.4	U			0.4	U			0.4	U			0.4	U					0.4	U					0.4	U			0.4	U			0.4	U			0.4	U			0.4	U			0.4	U
																											10	U					10	U			10	U			10	U			10	U			10	U			10	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	2	U			2	U			2	U			2	U			2	U			2	U					2	U					2	U			2	U			2	U			2	U			2	U			2	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	5	U			5	U			5	U			5	U			5	U			5	U					5	U					5	U			5	U			5	U			5	U			5	U			5	U
																											5	U					5	U																		
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	5	U			5	U			5	U			5	U			5	U			5	U					5	U					5	U			5	U			5	U			5	U			5	U			5	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	10	U			10	U			10	U			10	U			10	U			10	U					10	U					10	U			10	U			10	U			10	U			10	U			10	U
	1	U			1	U			1	U			1	U			1	U			1	U					1	U					1	U			1	U			1	U			1	U			1	U			1	U
	0.4	U			0.4	U			0.4	U			0.4	U			0.4	U			0.4	U					0.4	U					0.4	U			0.4	U			0.4	U			0.4	U			0.4	U			0.4	U
	1.4		**0.57**	**J**	1	U	1	U	**1.8**				1	U			**0.5**	**J**			**0.72**	**J**			**1.9**		1	U					1	U			1.6		1	U			1	U			**0.64**	**J**		
	1	U	1	U	1	U	1	U	1	U			1	U			1	U			1	U			1	U	1	U					1	U			1	U			1	U			1	U			1	U		
	1	U	1	U	1	U	1	U	1	U			1	U			1	U			1	U			1	U	1	U					1	U			1	U			1	U			1	U			1	U		
															200	U			200	U			200	U			200	U					200	U			200	U			200	U			200	U					200	U		
															20	U			20	U			20	U			20	U					20	U			20	U			20	U			20	U					20	U		
															10	U			10	U			10	U			10	U					10	U			10	U			10	U			10	U					10	U		
															22				**22**				**62**				**17**						**19**				**21**				**19**				**20**						**19**			
															1	U			1	U			1	U			1	U					**0.38**	**J**			1	U			1	U			1	U					1	U		
															1	U			1	U			1	U			1	U					1	U			1	U			1	U			1	U					1	U		
			31000				**28000**				**29000**				**31000**				**28000**				**27000**				**26000**						**29000**				**25000**				**26000**				**27000**						**26000**			
			8.6				**20**				**17**				**9.8**				14				17				18						8.7				**14**				**14**				**10**						**20**			
	6.5	**J**			**37**				**14**				**22**	**J**			**5.4**	**J**			**24**				**22**				**11**	**J**			10	UJ			10	U			**24**				10	U			**30**				10	U		
															4	U			4	U			4	U			4	U					4	U			4	U			4	U			4	U					4	U		
			8.3	**J**			**6.5**	**J**			**6.5**	**J**			10	U			**9.6**	**J**			**6.4**	**J**			10	U					15				**3.7**	**J**			**5.9**	**J**			**6.8**	**J**			**4.1**	**J**			**11**				**8.5**	**J**		
															42	**J**			50	U			50	U			50	U					**32**	**J**			**40**	**J**			**110**				**20**	**J**			50	U			50	U		
															5	U			5	U			5	U			5	U					5	U			5	U			5	U			5	U			5	U			5	U		
			2400				**2500**				**2400**				**2400**				**2200**				**2400**				**2100**						**1900**				**2100**				**2200**				**2000**				**2200**				**2100**			
															170				**9.4**				**13**				**5.5**						**41**				**140**				**5**				**2.9**	**J**			**0.55**	**J**			**3.7**				**3.8**			
																							0.2	U			0.2	U					0.2	U			0.2	U			0.2	U			0.2	U			0.2	U			0.2	U			0.2	U		
																											10	U					**1.9**	**J**			10	U			10	U			10	U			10	U			10	U		
			3500				**3500**				**3300**				**3400**				**3800**				**4100**				**3000**						**3000**				**3500**				**3600**				**3300**				**2800**				**3600**				**3400**			
																			10	U			10	U													10	U			10	U			10	U			10	U			10	U			10	U		
															10	U											10	U																										
															5	U			5	U			5	U			5	U					5	U			5	U			5	U			5	U			5	U			5	U			5	U		
			44000				**38000**				**44000**				**44000**				**35000**				**39000**				**35000**						**32000**				**38000**				**43000**				**37000**				**34000**				**33000**				**40000**			
															20	U			20	U			20	U			20	U					20	U			20	U			20	U			20	U			20	U			**20**	U			20	U		
															10	U			10	U			10	U			10	U					10	U			10	U			10	U			10	U			10	U			**4.8**	**J**			50	U		
															53				50	U			50	U			50	U					50	U			50	U			50	U			50	U					50	U		

Appendix B-2. Surface Water Data Summary - All Parameters
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

CSW-5 6/16/2021 SW C061621-CSW5 REG D		CSW-5 9/27/2021 SW C092721-CSW5 REG T		CSW-5 9/27/2021 SW C092721-CSW5 REG D		CSWBKG001 7/2/2018 W-SW 70218-CSWBKG-0 REG T		CSWBKG001 7/2/2018 W-SW 70218-CSWBKG-0 REG D	
Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
		1	U						
		1	U						
		0.5	U						
		1	U						
		1	U						
		1	U						
		1	U						
		1	U						
		1	U						
		1	U						
		1	U						
		5	U						
		1	U						
		1	U						
		1	U						
		1	U						
		1	U						
		1	U						
		1	U						
		1	U						
		50	U						
		1	U						
		10	U						
		1	U						
		10	U						
		1	U						
		10	U						
		50	U						
		1	U						
		1	U						
		1	U						
		0.5	U						
		1	U						
		2	U						
		1	U						
		10	U						
		1	U						
		1	U						
		2	U						
		1	U						
		2	U						
		1	U						
		0.4	U						
		0.5	U						
		1	U						
		1	U						
		1	U						
		5	U						
		1	U						
		0.4	U						
		10	U						
		1	U						
		2	U						
		1	U						
		1	U						
		5	U						
		1	U						
		1	U						
		1	U						
		1	U						
		5	U						
		1	U						
		1	U						
		10	U						
		1	U						
		1	U						
		0.4	U						
		1	U						
		1	U						
		1	U						
200	U			200	U			200	U
20	U			20	U			20	U
10	U			10	U			**6.4**	**J**
21				**20**				**37**	
1	U			1	U			1	U
1	U			1	U			1	U
27000				**27000**				**28000**	
6.6				**9.2**				5	U
		9.4	**J**			**5.1**	**J**		
4	U			4	U			**0.68**	**J**
14				**15**				10	U
50	U			**29**	**J**			**160**	
5	U			5	U			5	U
2000				**2100**				**2100**	
5.6				**120**				**1500**	
0.2	U								
1.5	**J**			**1.6**	**J**				
3000				**3600**				**3300**	
10	U			10	U				
								10	U
5	U			5	U			5	U
36000				**32000**				**29000**	
20	U			20	U			20	U
10	U			10	U			10	U
50	U			50	U			50	U

Appendix B Table 3. Comparison of All Surface Water Parameters of Screening Benchmarks
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Parameter [a]	Number of Detections	Number of Samples	Frequency of Detection (%) [b]	Maximum Detected Concentrations	Surface Water Screening Benchmark [c] [d]
VOCs (ug/L)					
1,1,1,2-Tetrachloroethane	0	95	0.00	-	
1,1,1-Trichloroethane	0	95	0.00	-	
1,1,2,2-Tetrachloroethane	0	95	0.00	-	
1,1,2-Trichloroethane	0	95	0.00	-	
1,1-Dichloroethane	0	95	0.00	-	
1,1-Dichloroethene	0	95	0.00	-	
1,1-Dichloropropene	0	95	0.00	-	
1,2,3-Trichlorobenzene	0	95	0.00	-	
1,2,3-Trichloropropane	0	95	0.00	-	
1,2,4-Trichlorobenzene	0	95	0.00	-	
1,2,4-Trimethylbenzene	0	95	0.00	-	
1,2-Dibromo-3-Chloropropane	0	95	0.00	-	
1,2-Dibromoethane	0	95	0.00	-	
1,2-Dichlorobenzene	0	95	0.00	-	
1,2-Dichloroethane	0	95	0.00	-	
1,2-Dichloropropane	0	95	0.00	-	
1,3,5-Trimethylbenzene	0	95	0.00	-	
1,3-Dichlorobenzene	0	95	0.00	-	
1,3-Dichloropropane	0	95	0.00	-	
1,4-Dichlorobenzene	0	95	0.00	-	
1,4-Dioxane	1	95	1.05	-	
2,2-Dichloropropane	0	95	0.00	-	
2-Butanone	0	95	0.00	-	
2-Chlorotoluene	0	95	0.00	-	
2-Hexanone	0	95	0.00	-	
4-Chlorotoluene	0	95	0.00	-	
4-Methyl-2-Pentanone	0	95	0.00	-	
Acetone	14	95	14.74	12	117,000 [2]
Benzene	0	95	0.00	-	
Bromobenzene	0	95	0.00	-	
Bromochloromethane	0	95	0.00	-	
Bromodichloromethane	1	95	1.05	-	
Bromoform	0	95	0.00	-	
Bromomethane	0	95	0.00	-	
Butylbenzene	0	95	0.00	-	
Carbon Disulfide	0	95	0.00	-	
Carbon Tetrachloride	0	95	0.00	-	
Chlorobenzene	0	95	0.00	-	
Chloroethane	0	95	0.00	-	
Chloroform	1	95	1.05	1	
Chloromethane	0	95	0.00	-	
cis-1,2-Dichloroethene	7	95	7.37	5.9	620 [2]
cis-1,3-Dichloropropene	0	95	0.00	-	
Dibromochloromethane	0	95	0.00	-	
Dibromomethane	0	95	0.00	-	
Dichlorodifluoromethane	0	95	0.00	-	
Diethyl Ether	0	95	0.00	-	
Di-Isopropyl Ether (DIPE)	0	48	0.00	-	
Ethyl Tert-Butyl Ether (ETBE)	0	95	0.00	-	
Ethylbenzene	0	95	0.00	-	

Appendix B Table 3. Comparison of All Surface Water Parameters of Screening Benchmarks
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Parameter [a]	Number of Detections	Number of Samples	Frequency of Detection (%) [b]	Maximum Detected Concentrations	Surface Water Screening Benchmark [c] [d]
Hexachlorobutadiene	0	95	0.00	-	
Isopropyl Ether	0	47	0.00	-	
Isopropylbenzene	0	95	0.00	-	
m&p-Xylenes	0	95	0.00	-	
Methane	6	20	30.00	11	NA
Methyl Tert-Butyl Ether	0	95	0.00	-	
Methylene Chloride	0	95	0.00	-	
Naphthalene	0	81	0.00	-	
Naphthalene	0	14	0.00	-	
n-Propylbenzene	0	95	0.00	-	
o-Xylene	0	95	0.00	-	
p-Isopropyltoluene	0	95	0.00	-	
Sec-Butylbenzene	0	95	0.00	-	
Styrene	0	95	0.00	-	
tert-Amyl Methyl Ether (TAME)	0	95	0.00	-	
Tert-Butylbenzene	0	95	0.00	-	
Tetrachloroethene	5	95	5.26	1.6	332 [2]
Tetrahydrofuran	0	95	0.00	-	
Toluene	0	95	0.00	-	
trans-1,2-Dichloroethene	0	95	0.00	-	
trans-1,3-Dichloropropene	0	95	0.00	-	
Trichloroethene	70	95	73.68	90	220 [2]
Trichlorofluoromethane	0	95	0.00	-	
Vinyl Chloride	0	95	0.00	-	
Inorganics (ug/L)					
Aluminum	0	74	0.00	-	
Antimony	0	74	0.00	-	
Arsenic	2	74	2.70	10	
Barium	74	74	100.00	62	220 [2]
Beryllium	1	74	1.35	1	
Cadmium	0	74	0.00	-	
Calcium	100	100	100.00	34000	
Chromium	98	124	79.03	930	74 [1]
Hexavalent Chromium	88	112	78.57	880	11 [1]
Cobalt	1	74	1.35	4	
Copper	72	100	72.00	18	BLM [1]
Iron	46	94	48.94	9300	
Lead	0	74	0.00	5	
Magnesium	100	100	100.00	2900	
Manganese	65	74	87.84	1500 [d]	93
Mercury	0	55	0.00	-	
Nickel	16	65	24.62	10	52
Potassium	100	100	100.00	5800	
Selenium	0	65	0.00	-	
Selenium Dioxide	0	9	0.00	-	
Silver	0	74	0.00	-	
Sodium	100	100	100.00	79000	
Thallium	0	74	0.00	-	
Vanadium	0	74	0.00	-	
Zinc	11	74	14.86	53	120 [1]

Appendix B Table 3. Comparison of All Surface Water Parameters of Screening Benchmarks
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Parameter [a]	Number of Detections	Number of Samples	Frequency of Detection (%) [b]	Maximum Detected Concentrations	Surface Water Screening Benchmark [c] [d]

[a] All surface water analytes presented in Table B-2 are shown.
[d] The frequency of detection is the number of detections divided by the number of samples.
[c] Surface water screening benchmarks were obtained from the following sources in order of preference:
[1] United States Environmental Protection Agency (USEPA) Nationally Recommended Water Qualtity Criteria
[2] USEPA Region IV freshwater chronic screening values (USEPA, 2018)
[d] Benchmarks are not provided for analytes that are not detected, that are detected in less than 5% of samples, or are considered essential nutrients (calcium, iron, magneseium, potassium, sodium)

BLM- biotic ligand model
NA
- Not detected

Honeywell
THE POWER OF CONNECTED

APPENDIX C
SEDIMENT DATA SUMMARY

Appendix C.Sediment Data Summary
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Field Sample ID Location Sample Date	Sediment Screening Benchmark [b]	C070218-CSD1 CSD-1 [c] 07/02/2018	C070218-CSD3 CSD-3 07/02/2018	C070218-CSD3A CSD-3A 07/02/2018	C070218-CSD5 CSD-5 07/02/2018	C111105-CSW7-S1 CSW-7 11/11/2005	C111105-CSW12-S1 CSW-12 11/11/2005	C040407-CSW12 CSW-12 4/4/2007	C070218-CSDBKG-001 CSD-BKG001 07/02/2018
Parameter [a]									
VOCs (ug/kg)									
1,1,1,2-Tetrachloroethane		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,1,1-Trichloroethane		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,1,2,2-Tetrachloroethane		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,1,2-Trichloroethane		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,1-Dichloroethane		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,1-Dichloroethene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,1-Dichloropropene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,2,3-Trichlorobenzene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,2,3-Trichloropropane		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,2,4-Trichlorobenzene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,2,4-Trimethylbenzene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,2-Dibromo-3-Chloropropane		14 U	13 U	17 U	20 U				22 U
1,2-Dichlorobenzene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,2-Dichloroethane		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,2-Dichloropropane		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,3,5-Trimethylbenzene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,3-Dichlorobenzene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,3-Dichloropropane		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,4-Dichlorobenzene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
1,4-Dioxane		140 U	130 U	170 U	200 U				220 U
2,2-Dichloropropane		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
2-Butanone (MEK)		14 U	13 U	17 U	20 U				**6.9 J**
2-Chlorotoluene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
2-Hexanone		14 U	13 U	17 U	20 U				22 U
4-Chlorotoluene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
4-Isopropyltoluene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
4-Methyl-2-pentanone		14 U	13 U	17 U	20 U				22 U
Acetone		140 U	130 U	170 U	**13 J**				**34 J**
Benzene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Bromobenzene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Bromoform		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Bromomethane		2.9 UJ	2.6 UJ	3.5 UJ	4.1 UJ				4.3 UJ
Carbon disulfide		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Carbon tetrachloride		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Chlorobenzene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Chlorobromomethane		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Chlorodibromomethane		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Chloroethane		2.9 UJ	2.6 UJ	3.5 UJ	4.1 UJ				4.3 UJ
Chloroform		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U

Field Sample ID Location Sample Date	Sediment Screening Benchmark [b]	C070218-CSD1 CSD-1 [c] 07/02/2018	C070218-CSD3 CSD-3 07/02/2018	C070218-CSD3A CSD-3A 07/02/2018	C070218-CSD5 CSD-5 07/02/2018	C111105-CSW7-S1 CSW-7 11/11/2005	C111105-CSW12-S1 CSW-12 11/11/2005	C040407-CSW12 CSW-12 4/4/2007	C070218-CSDBKG-001 CSD-BKG001 07/02/2018
Parameter [a]									
Chloromethane		2.9 UJ	2.6 UJ	3.5 UJ	4.1 UJ				4.3 UJ
cis-1,2-Dichloroethene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
cis-1,3-Dichloropropene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Dibromomethane		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Dichlorobromomethane		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Dichlorodifluoromethane		2.9 UJ	2.6 UJ	3.5 UJ	4.1 UJ				4.3 UJ
Ethyl ether		2.9 UJ	2.6 UJ	3.5 UJ	4.1 UJ				4.3 UJ
Ethylbenzene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Ethylene Dibromide		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Hexachlorobutadiene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Isopropyl ether		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Isopropylbenzene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
m-Xylene & p-Xylene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Methyl tert-butyl ether		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Methylene Chloride		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
n-Butylbenzene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
N-Propylbenzene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Naphthalene		14 U	13 U	17 U	20 U				22 U
o-Xylene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
sec-Butylbenzene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Styrene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Tert-amyl methyl ether		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Tert-butyl ethyl ether		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
tert-Butylbenzene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Tetrachloroethene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Tetrahydrofuran		29 U	26 U	35 U	41 U				43 U
Toluene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
trans-1,2-Dichloroethene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
trans-1,3-Dichloropropene		2.9 U	2.6 U	3.5 U	4.1 U				4.3 U
Trichloroethene	692	2.9 U	**4.2**	**2.5 J**	**1.6 J**				4.3 U
Trichlorofluoromethane		2.9 UJ	2.6 UJ	3.5 UJ	4.1 UJ				4.3 UJ
Vinyl chloride		2.9 UJ	2.6 UJ	3.5 UJ	4.1 UJ				4.3 UJ

Field Sample ID Location Sample Date	Sediment Screening Benchmark [b]	C070218-CSD1 CSD-1 [c] 07/02/2018	C070218-CSD3 CSD-3 07/02/2018	C070218-CSD3A CSD-3A 07/02/2018	C070218-CSD5 CSD-5 07/02/2018	C111105-CSW7-S1 CSW-7 11/11/2005	C111105-CSW12-S1 CSW-12 11/11/2005	C040407-CSW12 CSW-12 4/4/2007	C070218-CSDBKG-001 CSD-BKG001 07/02/2018
Parameter [a]									
SVOCs (ug/kg) [a]									
1,2,4-Trichlorobenzene		370 U	3900 U	3900 U	2000 U				1900 U
1,2-Dichlorobenzene		370 U	3900 U	3900 U	2000 U				1900 U
1,3-Dichlorobenzene		370 U	3900 U	3900 U	2000 U				1900 U
1,4-Dichlorobenzene		370 U	3900 U	3900 U	2000 U				1900 U
2,2'-oxybis[1-chloropropane]		190 U	2000 U	2000 U	1000 U				990 U
2,4,5-Trichlorophenol		190 U	2000 U	2000 U	1000 U				990 U
2,4,6-Trichlorophenol		190 U	2000 U	2000 U	1000 U				990 U
2,4-Dichlorophenol		190 U	2000 U	2000 U	1000 U				990 U
2,4-Dimethylphenol		190 U	2000 U	2000 U	1000 U				990 U
2,4-Dinitrophenol		1800 U	20000 U	20000 U	9900 U				9700 U
2,4-Dinitrotoluene		190 U	2000 U	2000 U	1000 U				990 U
2,6-Dinitrotoluene		190 U	2000 U	2000 U	1000 U				990 U
2-Chloronaphthalene		190 U	2000 U	2000 U	1000 U				990 U
2-Chlorophenol		190 U	2000 U	2000 U	1000 U				990 U
2-Methylnaphthalene		190 U	2000 U	2000 U	1000 U				990 U
2-Methylphenol		190 U	2000 U	2000 U	1000 U				990 U
2-Nitrophenol		190 U	2000 U	2000 U	1000 U				990 U
3 & 4 Methylphenol		370 U	3900 U	3900 U	2000 U				1900 U
3,3'-Dichlorobenzidine		370 U	3900 U	3900 U	2000 U				1900 U
3-Methylphenol		370 U	3900 U	3900 U	2000 U				1900 U
4-Bromophenyl phenyl ether		190 U	2000 U	2000 U	1000 U				990 U
4-Chloroaniline		190 U	2000 U	2000 U	1000 U				990 U
4-Methylphenol		370 U	3900 U	3900 U	2000 U				1900 U
4-Nitrophenol		370 U	3900 U	3900 U	2000 U				1900 U
Acetophenone		190 U	2000 U	2000 U	1000 U				990 U
Aniline		370 UJ	3900 U	3900 U	2000 U				1900 U
Azobenzene		370 U	3900 U	3900 U	2000 U				1900 U
Bis(2-chloroethoxy)methane		190 U	2000 U	2000 U	1000 U				990 U
Bis(2-chloroethyl)ether		190 U	2000 U	2000 U	1000 U				990 U
Bis(2-ethylhexyl)phthalate		190 U	2000 U	2000 U	1000 U				990 U
Butylbenzylphthalate		190 U	2000 U	2000 U	1000 U				990 U
Di-n-butylphthalate		190 U	2000 U	2000 U	1000 U				990 U
Di-n-octylphthalate		190 U	2000 U	2000 U	1000 U				990 U
Dibenzofuran		190 U	2000 U	2000 U	1000 U				990 U
Diethylphthalate		190 U	2000 U	2000 U	1000 U				990 U
Dimethylphthalate		190 U	2000 U	2000 U	1000 U				990 U
Hexachlorobenzene		190 U	2000 U	2000 U	1000 U				990 U
Hexachlorobutadiene		190 U	2000 U	2000 U	1000 U				990 U
Hexachloroethane		190 U	2000 U	2000 U	1000 U				990 U
Isophorone		190 U	2000 U	2000 U	1000 U				990 U
Nitrobenzene		190 U	2000 U	2000 U	1000 U				990 U
Pentachlorophenol		370 U	3900 U	3900 U	2000 U				1900 U
Phenol		190 U	2000 U	2000 U	1000 U				990 U

Field Sample ID Location Sample Date	Sediment Screening Benchmark [b]	C070218-CSD1 CSD-1 [c] 07/02/2018	C070218-CSD3 CSD-3 07/02/2018	C070218-CSD3A CSD-3A 07/02/2018	C070218-CSD5 CSD-5 07/02/2018	C111105-CSW7-S1 CSW-7 11/11/2005	C111105-CSW12-S1 CSW-12 11/11/2005	C040407-CSW12 CSW-12 4/4/2007	C070218-CSDBKG-001 CSD-BKG001 07/02/2018
Parameter [a]									
PAHs (ug/kg) [a]									
Acenaphthene		190 U	2000 U	2000 U	1000 U				990 U
Acenaphthylene		190 U	2000 U	2000 U	1000 U				990 U
Anthracene		190 U	2000 U	2000 U	1000 U				990 U
Benzo[a]anthracene		180 J	2000 U	2000 U	1000 U				990 U
Benzo[a]pyrene		180 J	2000 U	2000 U	1000 U				990 U
Benzo[b]fluoranthene	190 [2]	**220**	2000 U	2000 U	1000 U				990 U
Benzo[g,h,i]perylene		120 J	2000 U	2000 U	1000 U				990 U
Benzo[k]fluoranthene		85 J	2000 U	2000 U	1000 U				990 U
Chrysene	170 [a]	**190**	2000 U	2000 U	1000 U				990 U
Dibenz(a,h)anthracene		190 U	2000 U	2000 U	1000 U				990 U
Fluoranthene	420 [1]	**380**	2000 U	2000 U	1000 U				990 U
Fluorene		190 U	2000 U	2000 U	1000 U				990 U
Indeno[1,2,3-cd]pyrene		120 J	2000 U	2000 U	200 J				990 U
Naphthalene		190 U	2000 U	2000 U	1000 U				990 U
Phenanthrene		180 J	2000 U	2000 U	1000 U				990 U
Pyrene	200 [1]	**350**	2000 U	2000 U	1000 U				990 U
Pesticides (ug/kg) [a]									
4,4'-DDD		38 U	76 U	82 U	41 U				39 U
4,4'-DDE	6.8 [2]	38 U	76 U	82 U	**7.3** J				39 U
4,4'-DDT	7 [2]	38 U	76 U	82 U	**4.3** J				39 U
Aldrin		38 U	76 U	82 U	41 U				39 U
alpha-BHC		38 U	76 U	82 U	41 U				39 U
beta-BHC	7.2 [2]	38 U	76 U	82 U	41 U				**9** J
Chlordane (technical)		750 U	1500 U	1600 U	820 U				780 U
delta-BHC		38 U	76 U	82 U	41 U				39 U
Dieldrin		38 U	76 U	82 U	41 U				39 U
Endosulfan I		38 U	76 U	82 U	41 U				39 U
Endosulfan II		38 U	76 U	82 U	41 U				39 U
Endosulfan sulfate		38 U	76 U	82 U	41 U				39 U
Endrin		38 U	76 U	82 U	41 U				39 U
Endrin ketone		38 U	76 U	82 U	41 U				39 U
gamma-BHC (Lindane)	5 [2]	11 U	23 U	24 U	12 U				**8** J
Heptachlor		38 U	76 U	82 U	41 U				39 U
Heptachlor epoxide		38 U	76 U	82 U	41 U				39 U
Hexachlorobenzene		38 U	76 U	82 U	41 U				39 U
Methoxychlor		38 U	76 U	82 U	41 U				39 U

Field Sample ID Location Sample Date	Sediment Screening Benchmark [b]	C070218-CSD1 CSD-1 [c] 07/02/2018	C070218-CSD3 CSD-3 07/02/2018	C070218-CSD3A CSD-3A 07/02/2018	C070218-CSD5 CSD-5 07/02/2018	C111105-CSW7-S1 CSW-7 11/11/2005	C111105-CSW12-S1 CSW-12 11/11/2005	C040407-CSW12 CSW-12 4/4/2007	C070218-CSDBKG-001 CSD-BKG001 07/02/2018
Parameter [a]									
Metals (mg/kg)									
Antimony		0.57 U	0.59 U	0.63 U	0.64 U				0.61 U
Arsenic	33 [1]	**6.3**	**19**	**12**	**21**				**14**
Barium	60 [2]	**16**	**35**	**31**	**39**				**23**
Beryllium		**0.087** J	**0.21 J**	**0.18 J**	**0.25 J**				**0.12 J**
Cadmium	5 [a]	0.23 U	**0.039 J**	**0.13 J**	**0.15 J**				**0.062 J**
Chromium-Total	110 [a]	**7.6**	**84**	**110**	**170 J**	**156**	**48.6**	**14**	**8.2**
Chromium-Trivalent	NA	**7.6**	**84**	**110**	**170**				**8.2**
Chromium-Hexavalent		0.46 U	0.48 U	**0.32 J**	0.5 U	0.64 UJ	0.79 UJ		0.48 U
Copper	150 [1]							8.2	
Lead	130 [1]	**3.8**	**9.3**	**17**	**24**			**3.4**	**9**
Mercury	0.18 [1]	0.022 U	0.024 U	0.023 U	**0.021 J**				**0.01 J**
Nickel	49 [1]	**5.9**	**22**	**22**	**21**				**6.4**
Selenium		0.57 U	0.59 U	0.63 U	0.64 U				0.61 U
Silver		0.57 U	0.59 U	0.63 U	0.64 U				0.61 U
Thallium		1.1 U	1.2 U	1.3 U	1.3 U				1.2 U
Vanadium	NA	**5.6**	**16**	**15**	**17**				**6.3**
Zinc	460 [1]	**15**	**39**	**64**	**38**				**26**
Misc. Parameters (mg/kg)									
Total Organic Carbon		**7200**	**6700**	**3900**	**34000**				**8700**

Created by: AMR 6/7/2022

Checked by: SEB 6/15/2022

Notes:

[a] All analytes shown. Analytes such as SVOCs (including PAHs) and pesticides were analyzed in sediment to identify possible non-site related interferants for future toxicity tests (if needed) but are not site-related.

[b] Sediment screening benchmarks are provided only for detected analytes, and were obtained from the following sources listed in order of preference:

[1] MassDEP Revised Sediment Screening Values (MassDEP, 2007)

[2] USEPA Region IV freshwater screening values (USEPA, 2018)

NA- benchmark not available.

[b] CSD-1 was originally established to delineate and monitor the nature and extent of the most upgradient releases to the unnamed stream. However, following 11 monitoring events conducted at the co-located surface water station CSW-1 from 2007 through 2013, CSW-1 and CSD-1 were considered to be representative of upstream conditions.

Bold - indicates a detected concentrations.

Honeywell
THE POWER OF CONNECTED

APPENDIX D
JULY 2018 SURFACE WATER TOXICITY TESTS

TOXICOLOGICAL EVALUATION
OF SURFACE WATER SAMPLES

Project Site: C-Lab
Groton, Massachusetts

Project Number: 3617187 421

***Ceriodaphnia dubia* 7 day Survival and Reproduction Evaluation**

Prepared For:

Wood, PLC.
271 Mill Road
Chelmsford, Massachusetts 01824

Prepared By:

EnviroSystems, Incorporated
One Lafayette Road
Hampton, New Hampshire 03842

July 2018

Study Specific Reference Number: 30817

TABLE OF CONTENTS

1.0 INTRODUCTION 3

2.0 MATERIALS AND METHODS 3

2.1 General Methods 3
2.2 Test Species 3
2.3 Test Samples and Laboratory Control Water 3
2.4 *Ceriodaphnia dubia 7* Day Survival and Reproduction Evaluation 4
2.5 Data Analysis 4
2.6 Quality Control 4

3.0 RESULTS AND DISCUSSION 4

3.1 Screening Assay 4
3.1.1 Protocol Deviations 5
3.1.2 Summary 5
3.2 Definitive Assay 5
3.2.1 Protocol Deviations 5
3.2.2 Summary 5
3.3 Aged Sample Sreening 6
3.4 Summary 6

4.0 REFERENCES 6

LIST OF TABLES

Table 1. Summary of Sample Collection and Receipt Information 7
Table 2. Summary of Reference Toxicant Data 7
Table 3. Summary of Laboratory Control and Assay Acceptability 7
Table 4. Screening Assay Data Summary 8
Table 5. Screening Assay Water Quality Summary 8
Table 6. Definitive Assay Data Summary 9
Table 7. Definitive Assay Water Quality Summary 9
Table 8. Definitive Assay Metals Summary 10

APPENDIX A: RAW DATA & STATISTICAL SUPPORT 11

TOXICOLOGICAL EVALUATION
OF SURFACE WATER SAMPLES

Project Site: C-Lab
Groton, Massachusetts

Ceriodaphnia dubia 7 day Survival and Reproduction Evaluation

1.0 INTRODUCTION

This report presents the results of toxicity tests completed on surface water samples collected in support of the ecological risk assessment for the C-Lab Project Site, Groton, Massachusetts. Samples were provided by Wood, PLC, Portland, Maine. Testing was based on programs and protocols developed by the US EPA (2002), and involved conducting a chronic exposure screening assay and a definitive assay using the freshwater daphnid, *Ceriodaphnia dubia*. Testing was performed at EnviroSystems, Incorporated (ESI), Hampton, New Hampshire in accordance with the provisions of TNI Standards (2009).

Toxicity tests expose groups of organisms to environmental samples, a laboratory control and/or field reference sites for a specified period to assess potential impacts on a variety of endpoints, such as survival, growth or reproduction. Analysis of variance techniques are used to determine the relative toxicity of the samples as compared to the laboratory control and/or field reference sites. Endpoints for this study included survival and reproduction.

Three phases of testing were conducted for this project. The initial phase was a screening assay designed to evaluate toxicity associated with the various project site samples using “As Received” surface waters, and did not include use of a dilution series. The second phase of testing incorporated a dilution series in a definitive assay using a subset of the “As Received” samples that had demonstrated lethal toxicity. Acute and chronic “No Observed Effect Concentrations” (NOECs) were calculated as well as the median lethal concentration (LC-50), defined as the concentration of the sample that kills half of the test organisms in the definitive assay, and the median effects concentration (EC-50). A third phase of testing was conducted as a precursor to a limited TIE study, which will be reported under separate cover. The third assay was a screen of the same surface water used in the second phase of testing. Organisms were exposed to the sample after approximately four weeks of sample aging to determine if the sample still elicited a toxic effect.

2.0 MATERIALS AND METHODS

2.1 General Methods

Toxicological and analytical protocols used in this program follow procedures primarily designed to provide standard approaches for the evaluation of toxicological effects of discharges on aquatic organisms as outlined in *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (US EPA 2002). See Section 4.0 for a list of references.

2.2 Test Species

C. dubia were maintained in laboratory water at 25±1°C with a photoperiod of 16:8 hours light:dark. Cultures are fed daily with a yeast/trout chow/Cerophyll or alfalfa leaves (YTC) mixture supplemented with *Pseudokirchneriella subcapitata* (algae) (US EPA 2002). Adults on a brood board were isolated 24 hours prior to test start and allowed to reproduce for 8 hours.

2.3 Test Samples and Laboratory Control Water

Surface water samples collected for the project were received at ESI under chain of custody in 1 gallon cubitainers. Upon arrival at the laboratory, all samples received an internal sample control number and were logged into the project sample control system. Samples were placed in a secure refrigerator and stored at a temperature of 0-6°C as per 40 CFR §136.3. Sample identification, collection and receipt information is summarized in Table 1.

Laboratory water was synthetic reconstituted water prepared at ESI according to protocol (US EPA 2002). This water has been used to successfully culture freshwater organisms since 1992.

2.4 *Ceriodaphnia dubia 7* Day Survival and Reproduction Evaluation

Both the screening and definitive assays followed chronic exposure bioassay protocol (US EPA 2002), which called for the daily renewal of test solutions. Dissolved oxygen, pH, specific conductance, and temperature were measured in each new test solution.

Test chambers for the daphnid assay were 30 mL portion cups containing approximately 20 mL of test solution in each of 10 replicates with 1 organism/replicate. Replicates were not randomized during testing; rather, organisms were added at test initiation by blocking by known parentage. Survival and juvenile production were monitored daily. Daphnids were each fed 200 µL of a mixture of YTC and algae after daily renewals.

2.5 Data Analysis

Survival was analyzed using CETIS™ v1.9.3.0 (Comprehensive Environmental Toxicity Information System) software to determine significant differences between the site surface water and the laboratory control water. Data sets were evaluated to determine normality of distribution and homogeneity of sample variance. Data sets were subsequently evaluated using the appropriate parametric or non-parametric Analysis of Variance (ANOVA) statistics. Selection of specific statistical methods was based on US EPA Decision Tree guidelines. As appropriate, data sets were transformed prior to analysis. Statistical comparisons were made for the following endpoints; survival on days 2 and 7, and reproduction on day 7. Pair-wise comparisons were made using the appropriate statistical evaluation. Statistical difference was evaluated at $\alpha = 0.05$.

2.6 Quality Control

As part of the laboratory quality control program, reference toxicant evaluations are completed on a regular basis for each test species. These results, presented in Table 2, provide regular laboratory performance evaluation through the comparison of historic data sets.

3.0 RESULTS AND DISCUSSION

The screening assay was initiated the same day samples arrived at the laboratory and was designed to determine if surface waters from any of the project sites exhibited significant effects, indicated by either a significant reduction in survival or reproduction. Based on early findings of the screening assay, a definitive assay was initiated three days later using the sample identified as CSW-3 (30816-007) in a standard dilution series. The objective of the definitive assay was to document the level of toxicity associated with the selected sample by calculating known endpoints. The third round of testing involved re-analysis of the CSW-3 sample after a holding period to determine if “aging” of the sample had an effect on sample toxicity.

3.1 Screening Assay

At the end of the 7 day exposure period, mean survival in laboratory control water was 90% with a coefficient of variation (CV) of 35.14%. Daphnids in the laboratory control water had a mean reproduction of 28.7 juveniles/female at the end of the 7 day exposure period, with a CV of 41.3%. Three brood of juveniles were produced by 80% of the daphnids. Minimum test acceptability criteria require 80% control survival, mean production of 15 juveniles/female, and production of 3 broods by at least 60% of control females (US EPA 2002). Achievement of these criteria indicates that healthy test organisms were used. Table 3 provides a summary of assay acceptability criteria and control achievement. Tables 4 and 5 present the results of the screening assay and associated water quality data, respectively.

Review of survival data after 24 hours of exposure documented 100% survival in all project site surface waters, indicating that none of the samples exhibited a high level of acute toxicity. After 48 hours of exposure, CSW-3 demonstrated acute lethal effects with only 30% survival whereas the remaining site surface water samples still demonstrated 100% survival (i.e., no acute toxic effects). After 7 days exposure (i.e., at the end of the chronic exposure period), survival in samples CSW-5 and CSW-BKG001 was 100%, and survival in sample CSW-3A was 90%. CSW-3 was the only sample that demonstrated significant chronic lethal effects with 0% survival.

After 7 days exposure, mean reproduction ranged from 0 to 26.9 juveniles/female adult, with less impact from samples CSW-5 and CSW-BKG001 (24.2 and 23.0 juveniles produced/female, respectively) and greater impact from samples CSW-3 and CSW-3A (0 and 2.7 juveniles produced/female, respectively).

Statistical analysis of these data documented that reproduction was significantly reduced following exposure to all four surface water samples as compared to the laboratory control.

During daily water quality observations, the temperatures recorded for the test incubator remained steady at 25.0°C. Test acceptability criteria requires temperature be maintained at 25±1°C. Temperatures of surface water samples used for test solution renewal (i.e., "new" water qualities) ranged from 20 to 25°C, which may reflect ambient temperatures in the laboratory.

3.1.1 Protocol Deviations

Review of data generated during the 7-day exposure period documented no protocol deviations.

3.1.2 Summary

Project site surface waters did not exhibit a high level of acute toxicity following the initial 24 hour exposure period. Surface water from CSW-3 was the only sample to cause significant effects on acute and chronic survival. Surface waters from all sites had a significant negative impact on reproduction with waters from sites CSW-3 and CSW-3A having the greatest impact.

3.2 Definitive Assay

A definitive assay was initiated on July 6, 2018 using sample CSW-3 based on the acute mortality observed after the initial 48 hour exposure period of the screening assay. At the end of the 7-day exposure period, mean survival in the laboratory control was 100% with a coefficient of variation (CV) of 0%. Mean reproduction in the laboratory control was 33.6 juveniles/female with a CV of 22.19%, and three broods of juveniles were produced by 90% of the daphnids. Minimum test acceptability criteria require 80% control survival, mean production of 15 juveniles/female, and production of 3 broods by at least 60% of control females (US EPA 2002). Achievement of these three criteria indicates that healthy test organisms were used. Table 3 provides a summary of assay acceptability criteria and control achievement. Tables 6 and 7 present the results of the definitive assay and associated water quality data, respectively.

Review of survival data after the initial 24 hour exposure period documented 100% survival in all the dilutions with the exception of the undiluted (100%) sample, which had only 70% survival. After 48 hours exposure, survival in the undiluted sample was down to 40%. The 48-hour LC-50 was computed to be 89.1% indicating an acute toxic effect. After 7 days exposure, survival in all dilutions except the undiluted sample remained between 90 and 100%. Survival in the undiluted sample was 0%. The NOEC for survival was determined to be 50%. Additional statistical analysis of survival data resulted in an EC-25 of 56.2%, which demonstrates that the computed NOEC is valid and not impacted by variations in the dose response curve.

Reproduction in the 6.25%, 12.5%, 25% and 50% dilutions ranged from 17.6 to 31.0 juveniles produced/female. There was no reproduction in the undiluted sample. Analysis of the data documented that reproduction in the 50% and 100% (undiluted) treatments were significantly reduced as compared to the diluent control. Based on this finding, the NOEC for reproduction was determined to be 25%. Additional statistical analysis of reproduction data resulted in an EC-25 of 29.4%, which demonstrates that the computed NOEC is valid and not impacted by variations in the dose response curve.

Water quality data collected during the assay, summarized in Table 7 and the Appendix A, showed that the mean temperature in the test incubator was 25.0°C. Test acceptability criteria requires temperature be maintained at 25±1°C. Temperatures of surface water samples used for test solution renewal (i.e., "new" water qualities) ranged from 20 to 25°C, which may reflect ambient temperatures in the laboratory.

3.2.1 Protocol Deviations

Review of data generated during the 7-day exposure period documented no protocol deviations.

3.2.2 Summary

Surface water from sample CSW-3 was determined to be acutely toxic after the initial 48- hour exposure period, resulting in an LC-50 of 89.1%. Sample CSW-3 also had a significant negative impact on chronic survival and reproduction with NOEC values of 50 and 25%, respectively.

Survival and reproduction data collected from the definitive assay conducted with the CSW-3 surface water showed a similar pattern as observed for the initial screening evaluation: there was little to no mortality during the initial 24 hour period followed by complete mortality after 72 hours exposure. In both cases there was no reproduction in the undiluted sample. This strongly suggests that limited aging of the sample (e.g., 72 hours) had no change on sample toxicity.

3.3 Aged Sample Screening Assay

A second screening assay was initiated one month (August 3, 2018) from the sample receipt date to determine if sample aging would affect the toxic characteristics of sample CSW-3. Due to the limited volume of sample available, the assay design was modified to include only 4 replicates. At the end of the 7-day exposure period, mean survival in laboratory control water was 75% and mean reproduction was 28.0 juveniles produced/female. Three brood of juveniles were produced by 67% of the daphnids. One daphnid was determined to be a male and was excluded from the reproduction analysis.

Results of the evaluation using the aged sample CSW-3 provided findings similar to those obtained from the initial screen and the subsequent definitive assay. Survival at 24 and 48 hours was 100%, but by 72 hours survival dropped to 75% and by day 7, survival in sample CSW-3 was 0%. At the end of the assay mean reproduction in sample CSW-3 was 3.75 juveniles/female. The most notable difference between the 3 rounds of testing was that there were no acute lethal effects (i.e., within the first 48 hours), however effects on daphnid survival were demonstrated at 72 hours. In addition, reproduction was observed in 2 of the 4 replicates after 7 days exposure, whereas no reproduction had been observed in the prior two assays.

3.4 Summary

This program utilized protocols developed by the US EPA to assess the potential toxicological impacts of surface water collected near the C-Lab Project site on freshwater invertebrates. Results of the initial screening assay documented that samples CSW-5 and CSW-BKG001 had no acute or chronic effect on survival, however both samples did have an effect or reproduction as compared to the laboratory control. It should be noted that daphnid survival and reproduction in both these samples exceeded minimum requirements for test acceptability. The water from site CSW-3A exhibited no acute or chronic effects on survival, however there was a significant reduction in juvenile reproduction. Water from sample CSW-3 was toxic during the initial 24 hour exposure period, but between 24 and 48 hours survival in this sample decreased rapidly leading to no surviving organisms after 72 hours exposure.

The CSW-3 surface water's toxicity was assessed in two successive assays to determine the level of toxicity (i.e., calculated point estimates) and to see if toxicity decreased with sample age. Results of a definitive assay using sample material that was 3 days older than that used in the initial screening assay demonstrated that 50% dilution of the sample resulted in water that exhibited no acute or chronic exposure toxicity and that a 25% dilution of the sample generated a sample that exhibited no toxic effect on daphnid reproduction. The calculated LC-50 was 89.1%, and chronic NOECs for survival and reproduction were 50% and 25%, respectively. Conduct of a second screening assay using CSW-3 surface water that had aged 31 days resulted in findings of toxicity and reproduction similar to the initial screening assay, strongly suggesting that the toxicant in the sample exhibited little impact by sample aging such as loss of volatile compounds or complexing with organic matter or other compounds to generate a non-toxic compound.

4.0 REFERENCES

40 CFR §136.3. *Code of Federal Regulations* (CFR), Protection of the Environment (Title 40), Guidelines Establishing Test Procedures for the Analysis of Pollutants (Part 136), Identification of Test Procedures (sub-part 3), Table II-Required Containers, Preservation Techniques, and Holding Times.

The NELAC Institute (TNI). 2009. *Environmental Laboratory Sector, Volume 1: Management and Technical Requirements for Laboratories Performing Environmental Analysis (TNI Standard)*. EL-V1-2009.

US EPA. 2002. *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*. Fourth Edition. EPA-821-R-02-013.

US EPA Region I. 2013. *Freshwater Chronic Toxicity Test Procedure and Protocol - US EPA Region I*. US EPA Region I Office, Boston, Massachusetts. March 2013.

Table 1. Summary of Sample Collection and Receipt Information. *C. dubia* **7 Day Survival and Reproduction Toxicity Test. C-Lab, Groton, Massachusetts. July 2018.**

ESI Code	Field ID	Sample Collected		Sample Received	
		Date	Time	Date	Time
30816-005	CSW-5	07/02/18	0915	07/03/18	0800
30816-006	CSW-3A	07/02/18	1100	07/03/18	0800
30816-007	CSW-3	07/02/18	1200	07/03/18	0800
30816-008	CSW-BKG 001	07/02/18	1400	07/03/18	0800

Table 2. Summary of Reference Toxicant Data. *C. dubia* **7 Day Survival and Reproduction Toxicity Test. C-Lab, Groton, Massachusetts. July 2018.**

Date	Endpoint		Value	Historic Mean/ Central Tendency	Acceptable Range	Reference Toxicant
C. dubia						
07/05/18	Survival	LC-50	19.0	23.4	3.8 - 43.0	SDS (mg/L)
07/03/18	Survival	C-NOEC	30.0	60.0	30.0 - 120.0	Copper (µg/L)
07/03/18	Reproduction	C-NOEC	15.0	30.0	15.0 - 60.0	Copper (µg/L)
07/03/18	Reproduction	MSDp	30.4	30.1	13.0 - 47.1	Copper (µg/L)

Means and Acceptable Ranges based on the most recent 20 reference toxicant assays.

Table 3. Summary of Laboratory Control and Assay Acceptability. ***C. dubia*** **7 Day Survival and Reproduction Toxicity Test. C-Lab, Groton, Massachusetts. July 2018.**

Endpoint / Measurement	Protocol Criteria	Unit	Screening Assay	Definitive Assay
Mean Survival	Laboratory Control ≥ 80%	%	90%	100%
		Protocol Met	Yes	Yes
Reproduction	Laboratory Control ≥ 15 juveniles/female	juv/female	28.7	33.6
		Protocol Met	Yes	Yes
Brood Production	Lab Control ≥ 60%	%	80%	90%
		Protocol Met	Yes	Yes
MSDp	Laboratory Control variability 13-47%	%	-	20.0%
		Protocol Met	-	Yes
New Water Quality Temperature	Mean: 25°±1°C	Daily	23	22.4
	Minimum: 24°C	Daily	20	20
	Maximum: 26°C	Daily	25	25
		Protocol Met	No [a]	No [a]

COMMENTS:

[a] The temperature readings were taken at the bench and as such are influenced by ambient laboratory temperatures, therefore do not reflect the incubator temperatures (set for 25°C).

Table 4. Screening Assay Data Summary. *C. dubia* **7 Day Survival and Reproduction Toxicity Test. C-Lab, Groton, Massachusetts. July 2018.**

Field ID	ESI Code	Mean Percent Survival			Mean Reproduction	% Females Producing 3 Broods
		Day 01	Day 02	Day 07	(Juv/Female)	
LAB	30817-000	100%	100%	90%	28.7	80%
CSW-5	30816-005	100%	100%	100%	26.9	89%
CSW-3A	30816-006	100%	100%	90%	2.7	0%
CSW-3	30816-007	100%	30%	0%	0.0	0%
CSW-BKG 001	30816-008	100%	100%	100%	25.6	90%

Statistically Significant Difference in Endpoint as Compared to Lab Control

Field ID	ESI Code	Survival		Reproduction
		Day 02	Day 07	Day 07
CSW-5	30816-005	No	No	Yes
CSW-3A	30816-006	No	No	Yes
CSW-3	30816-007	Yes	Yes	Yes
CSW-BKG 001	30816-008	No	No	Yes

Table 5. Screening Assay Water Quality Summary. *C. dubia* **7 Day Survival and Reproduction Toxicity Test. C-Lab, Groton, Massachusetts. July 2018.**

New Water Quality Values

		Dissolved Oxygen (mg/L)		pH (SU)		Specific Conductivity (µmhos/cm)	
Field ID	ESI Code	Day 0	Last [a]	Day 0	Last [a]	Day 0	Last [a]
LAB	30817-000	8.6	8.7	7.78	7.92	194	191
CSW-5	30816-005	7.5	8.9	6.97	7.15	428	448
CSW-3A	30816-006	9.0	9.1	7.03	7.24	348	371
CSW-3	30816-007	7.7	8.9	6.65	6.71	305	295
CSW-BKG 001	30816-008	7.4	9.0	6.66	6.95	343	358

Old Water Quality Values

		Dissolved Oxygen (mg/L)		pH (SU)		Specific Conductivity (µmhos/cm)	
Field ID	ESI Code	Day 1	Last [a]	Day 1	Last [a]	Day 1	Last [a]
LAB	30817-000	7.7	8.3	7.75	7.75	201	213
CSW-5	30816-005	7.6	8.4	7.91	7.99	415	457
CSW-3A	30816-006	7.5	8.4	8.06	8.10	343	371
CSW-3	30816-007	7.5	8.5	8.09	8.03	297	370
CSW-BKG 001	30816-008	7.5	8.4	8.03	8.00	332	356

COMMENTS:
[a] Measurement taken from the last available reading for each sample.
Additional water quality and analytical support data are provided in Appendix A.

Table 6. Definitive Assay Data Summary. *Ceriodaphnia dubia* 7 Day Survival and Reproduction Toxicity Test. C-Lab, Groton, Massachusetts. July 2018.

Effluent Conc.	Mean Percent Survival		Mean Reproduction	% Females Producing 3 Broods	Is There a Significant Difference, Day 7 Endpoints, Based on	
	Day 2	Day 7	(Juv/Female)		Survival (%)	Reproduction
LAB [a]	100.0%	100.0%	33.6	90.0%	-	-
6.25%	100.0%	100.0%	21.0	90.0%	No	No
12.5%	100.0%	100.0%	29.1	90.0%	No	No
25%	100.0%	100.0%	27.5	80.0%	No	No
50%	100.0%	90.0%	17.6	50.0%	No	Yes
100%	40.0%	0.0%	0.0	0.0%	Yes	Yes
	LC-50 = 89.1%		MSDp = 20.0%		NOEC = 50%	NOEC = 25%

COMMENTS:

[a] Laboratory reconstituted water used as diluent.

Table 7. Definitive Assay Water Quality Summary. *Ceriodaphnia dubia* 7 Day Survival and Reproduction Toxicity Test. C-Lab, Groton, Massachusetts. July 2018.

New Water Quality Values

	Dissolved Oxygen (mg/L)		pH (SU)		Specific Conductivity (µmhos/cm)	
Field ID	Day 0	Last [a]	Day 0	Last [a]	Day 0	Last [a]
LAB	8.4	8.8	7.75	7.77	193	185
6.25%	8.4	9.3	7.51	7.66	198	192
12.5%	8.5	9.2	7.37	7.67	205	199
25%	8.5	8.9	7.19	7.38	215	213
50%	8.6	9.3	7.00	7.20	242	241
100%	8.8	8.9	6.70	7.11	291	292

Old Water Quality Values

	Dissolved Oxygen (mg/L)		pH (SU)		Specific Conductivity (µmhos/cm)	
Field ID	Day 1	Last [a]	Day 1	Last [a]	Day 1	Last [a]
LAB	8.9	8.2	7.85	7.63	190	212
6.25%	9.0	8.2	7.87	7.64	194	218
12.5%	9.0	8.1	7.90	7.67	200	223
25%	9.0	8.1	7.92	7.68	213	239
50%	9.0	8.1	7.95	7.70	232	263
100%	9.0	8.1	8.07	7.89	284	323

COMMENTS:
[a] Measurement taken from the last available reading for each sample.
Additional water quality and analytical support data are provided in Appendix A.

Table 8. Definitive Assay Metals Summary. *Ceriodaphnia dubia* 7 Day Survival and Reproduction Toxicity Test. C-Lab, Groton, Massachusetts. July 2018.

PARAMETER	UNITS	CW-3
Specific Conductance	µmhos/cm	291
pH	SU	6.70
Aluminum, total	mg/L	0.03
Cadmium, total	mg/L	<0.0003
Calcium, total	mg/L	23.8
Chromium	mg/L	0.23
Copper, total	mg/L	0.012
Iron, total	mg/L	0.023
Lead, total	mg/L	<0.0003
Magnesium, total	mg/L	1.99
Nickel, total	mg/L	0.0018
Selenium, total	mg/L	<0.002
Zinc, total	mg/L	0.0049

COMMENTS:
Additional water quality and analytical support data are provided in Appendix A.

APPENDIX A

RAW DATA AND STATISTICAL SUPPORT

Contents	Number of Pages
Chains of Custody and Sample Receipt Record	2
Initial Screening Assay	
C. dubia Chronic Survival and Reproduction Bench Sheets	2
C. dubia Survival and Reproduction Statistics	13
C. dubia - Blocking By Parentage Tracking Sheet	1
Daily Water Quality Data Sheets	2
Sample Use Record	1
Definitive Assay - Sample CSW-3	
C. dubia Chronic Survival and Reproduction Bench Sheets	2
C. dubia Survival and Reproduction Statistics	10
C. dubia - Blocking By Parentage Tracking Sheet	1
Daily Water Quality Data Sheets	2
Sample Use Record	2
Chemistry Support Data	1
Second Screening Assay - Sample CSW-3	
C. dubia Chronic Survival and Reproduction Bench Sheets	1
Assay Review Checklists	2
Total Appendix Pages	38

ESI

EnviroSystems, Inc.
1 Lafayette Road
P.O. Box 778
Hampton, N.H. 03843

Voice: 603-926-3345
FAX: 603-926-3521

ESI Job No: 30816

CHAIN OF CUSTODY DOCUMENTATION

Client: Wood. E+I	Contact: Tony Rodolakis	Project Name: C-lab	Page 1 of 1
Report to: Tony Rodolakis	Address: 271 M.I.I Rd.	Project Number: 3617187421	
Invoice to: Kerry Tull	Address: Chelmsford, MA 01824	Project Manager: Kerry Tull	
Voice: 3617187421. 920001. 920001 ~~536001.~~	Fax:	email: tony.rodolakis@wood plc.com	P.O. No: Quote No:

Protocol: RCRA SDWA NPDES USCOE Other

Lab Number (assigned by lab)	Your Field ID: (must agree with container)	Date Sampled	Time Sampled	Sampled By	Grab or composit (G/C)	Container Size (ml.)	Container Type (P/G/T)	Field Preservation	Matrix S=Solid W=Water	Filter N=Not needed F=Done in field L=Lab to do	Analyses Requested\ Special Instructions:
001	CSD-5	7/2/18	1000	MAM	C	2x 1gal	P	NA	SED	N	Hyalella tox - hold
002	CSD-3A	7/2/18	1130	MAM	C	2x1gal	P	NA	SED	N	Hyalella tox - hold
003	CSD-3	7/2/18	1230	MAM	C	1x1gal	P	NA	SED	N	Hyalella tox - hold
004	CSD-BKG001	7/2/18	1420	MAM	C	2x1gal	P	NA	SED	N	Hyalella tox - hold
005	CSW-5	7/2/18	915	MAM	G	1x1gal	P	NA	W	N	Ceriodaphnia dubia (survival + reproduction)
006	CSW-3A	7/2/18	1100	MAM	G	1x1gal	P	NA	W	N	Ceriodaphnia dubia (survival + reproduction)
007	CSW-3	7/2/18	1200	MAM	G	2x1gal	P	NA	W	N	Ceriodaphnia dubia (survival + reproduction) and TIE test
008	CSW-BKG001	7/2/18	1400	MAM	G	1x1gal	P	NA	W	N	Ceriodaphnia dubia (survival + reproduction)

Relinquished By: Mark Massicotte Date: 7/3/18 Time: 0800

Received By: M GREENE Date: 7/3/18 Time: 0800

Relinquished By: Date: Time:

Received at Lab By: Date: Time:

Comments:

Sample Delivery Group No: Page of

ESI

SAMPLE RECEIPT AND CONDITION DOCUMENTATION

STUDY NO:	30816		
SDG No:			
Project:	C-Lab		
Delivered via:	ESI		
Date and Time Received:	07/03/18 0800	Date and TIme Logged into Lab:	07/05/18 1325
Received By:	MG	Logged into Lab by:	JTP
Air bill / Way bill:	No	Air bill included in folder if received?	N/A
Cooler on ice/packs:	Yes	Custody Seals present?	N/A
Cooler Blank Temp (C) at arrival:	3.8C	Custody Seals intact?	N/A
Number of COC Pages:	1		
COC Serial Number(s):	N/A		
COC Complete:	Yes	Does the info on the COC match the samples?	Yes
Sampled Date:	Yes	Were samples received within holding time?	Yes
Field ID complete:	Yes	Were all samples properly labeled?	Yes
Sampled Time:	Yes	Were proper sample containers used?	Yes
Analysis request:	Yes	Were samples received intact? (none broken or leaking)	Yes
COC Signed and dated:	Yes	Were sample volumes sufficient for requested analysis?	Yes
Were all samples received?	Yes	Were VOC vials free of headspace?	N/A
Client notification/authorization:	Not required	pH Test strip ID number:	N/A

Field ID	Lab ID	Mx	Analysis Requested	Bottle	Req'd Pres'n	Verified Pres'n
CSD-5	30816-001	S	Hold: Ha28Day	2x1gal P	4C	Yes
CSD-3A	30816-002	S	Hold: Ha28Day	2x1gal P	4C	Yes
CSD-3	30816-003	S	Hold: Ha28Day	1x1gal P	4C	Yes
CSD-BKG001	30816-004	S	Hold: Ha28Day	2x1gal P	4C	Yes
CSW-5	30816-005	W	Cd7DCR	1x1gal Cubit	4C	Yes
CSW-3A	30816-006	W	Cd7DCR	1x1gal Cubit	4C	Yes
CSW-3	30816-007	W	Cd7DCR, TIE	2x1gal Cubit	4C	Yes
CSW-BKG001	30816-008	W	Cd7DCR	1x1gal Cubit	4C	Yes

Notes and qualifications:

Ceriodaphnia dubia Chronic Reproduction Assay

STUDY#	CONC	Day	A	B	C	D	E	F	G	H	I	J	SUM	SURV
30817		0	+	+	+	+	+	+	+	+	+	+	0	10
CLIENT:		1	+	+	+	+	+	+	+	+	+	+	0	10
Wood E+I		2	+	+	+	+	+	+	+	+	+	+	0	10
		3	−	+	+	+	+	+	+	+	+	+	0	9 (E3 CFS 07/07)
SAMPLE:		4	|	3	4	5	4	4	4	4	5	+	33	9
	LAB	5	|	11	+	12	+	(5)	+	11	+	+	39	9
DILUENT:	(000)	6	|	+	12	+	12	(8)	10	+	12	6	60	9
NONE		7	|	21	19	15	19	19	20	15	18	9	155	9
Cerio Data		8	↓											8 (E3 07/13)
source: MSR ☑		Total	0	35	35	32	35	36	34	30	35	15	287	9
MHR ☑		0	+	+	+	+	+	+	+	+	+	+	0	10
collected:		1	+	+	+	+	+	+	+	+	+	+	0	10
previous pm ☐		2	+	+	+	+	+	+	+	+	+	+	0	10
test day am ☑		3	+	+	+	+	+	+	+	+	+	+	0	10
Day 0 07/03/18 Time: 1520 Initial: MS	CSW	4	2	+	4	4	5	4	+	3	3	2	27	10
	-5	5	+	+	(4)	5	+	+	+	8	+	+	17	10
Day 1 07/04 Time: 1005 Initial: KB		6	8	+	(12)	+	12	6	11	+	12	12	73	10
	(005)	7	18	+	18	20	12	17	16	13	16	13	125 ~~143~~	10
Day 2 07/05 Time: 0965 Initial: KB		8	—	—	—	—	—	—	—	—	—	—	242 E3 07/06/18	
		Total	28	♂	~~38~~ 20	29	29	27	27	24	31	27	~~260~~	10
Day 3 7/6 Time: 1120 Initial: MW		0	+	+	+	+	+	+	+	+	+	+	0	10
		1	+	+	+	+	+	+	+	+	+	+	0	10
Day 4 07/07 Time: 1055 Initial: CFS		2	+	+	+	+	+	+	+	+	+	+	0	10
		3	+	+	+	+	+	+	+	+	+	+	0	10
Day 5 07/08/18 Time: 1255 Initial: MS	CSW	4	+	+	+	+	+	+	4	+	+	+	4	10
	-3A	5	+	+	+	+	+	+	+	+	+	+	0	10
Day 6 07/09/18 Time: 1440 Initial: MS		6	4	3	+	4	+	4	6	−	+	+	21	9 (E3 07/13)
	(006)	7	+	+	+	+	2	+	+	↓	EX CBS 07/10 #2	+	2	9
Day 7 07/10/18 Time: 1535 Initial: GRS		8	—											
		Total	4	3	0	4	0	4	10	0	2	0	27	9
Day 8 Time: Initial:		0	+	+	+	+	+	+	+	+	+	+	0	10
		1	+	+	+	+	+	+	+	+	+	+	0	10
LEGEND:		2	−	+	+	+	−	−	−	−	−	−	0	3
+ = Live		3	|	−	−	−	|	|	|	|	|	|	0	0
- = Dead	CSW	4	|	|	|	|	|	|	|	|	|	|	0	0
♂ = Male	-3	5	|	|	|	|	|	|	|	|	|	|	0	0
M = Missing		6	|	|	|	|	|	|	|	|	|	|	0	0
Calculations:	(007)	7	|	|	|	|	|	|	|	|	|	|	0	0
Initials: BG		8	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	0	0
Date: 07/12/18		Total	0	0	0	0	0	0	0	0	0	0	0	0

P:\General Projects\Client Specific Files\Wood E+I\ceriochronic.wpd

(E6) 07/14/18 CSW-5 Rep B excluded from reproduction stats

Ceriodaphnia dubia Chronic Reproduction Assay

(E10) LB 7/10/18 B rep excluded from reproduction stats

STUDY#	CONC	Day	A	B	C	D	E	F	G	H	I	J	SUM	SURV
30817		0	+	+	+	+	+	+	+	+	+	+	0	10
CLIENT: Wood E+I		1	+	+	+	+	+	+	+	+	+	+	0	10
		2	+	+	+	+	+	+	+	+	+	+	0	10
		3	~~3~~ +	~~+~~ +	~~3~~ +	~~3~~ +	~~4~~ +	~~3~~ +	~~3~~ +	~~3~~ +	~~3~~ +	~~2~~ +	~~27~~ 0	10
SAMPLE:	CSW	4	~~+~~ 3	~~+~~ 1	~~+~~ 3	~~7~~ 3	~~+~~ 4	~~+~~ 3	~~+~~ 3	~~+~~ 3	~~+~~ 3	~~5~~ 2	~~13~~ 27	10
	-BKG	5	+	+	+	7	+	+	+	+	+	5	~~18~~ 2	10
DILUENT: NONE	001	6	5	+	9	+	8	6	6	5	6	8	53	10
	(008)	7	16	+	12	18	16	16	17	14	12	17	138	10
Cerio Data source: MSR ☑		8												
		Total	24	♂	24	28	28	25	26	22	21	32	230	10
MHR ☑														
collected:														
previous pm ☐														
test day am ☑														
Day 0 07/03/18 Time: 1520 Initial: MS														
Day 1 07/04 Time: 1005 Initial: KB														
Day 2 7/5 Time: 0955 Initial: KB														
Day 3 7/6 Time: 1120 Initial: MW														
Day 4 07/07 Time: 1055 Initial: CFS														
Day 5 07/08/18 Time: 1755 Initial: MS														
Day 6 07/09/18 Time: 1440 Initial: MS														
Day 7 07/10/18 Time: 1535 Initial:														
Day 8 Time: Initial:														
LEGEND:														
+ = Live														
- = Dead														
♂ = Male														
M = Missing														
Calculations:														
Initials: PG														
Date: 07/13/18														

(E10) MS 07/08 90

(E10) MS 07/08 Day 3 not filled in, all values after were transferred down by a day

CETIS Test Data Worksheet

Ceriodaphnia 7-d Survival and Reproduction Test — **EnviroSystems, Inc.**

Start Date: 03 Jul-18 15:20 **Species:** Ceriodaphnia dubia **Sample Code:** 30817-000
End Date: 10 Jul-18 15:35 **Protocol:** EPA/821/R-02-013 (2002) **Sample Source:** C-Lab
Sample Date: 03 Jul-18 **Material:** Laboratory Control Water **Sample Station:** Laboratory Control

Sample	Rep	Pos	# Exposed	1d Survival	2d Survival	3d Survival	4d Survival	5d Survival	6d Survival	7d Survival	Neonates	Male	Notes
30817-000	1	43	1		1					0	0	0	
30817-000	2	48	1		1					1	35	0	
30817-000	3	13	1		1					1	35	0	
30817-000	4	21	1		1					1	32	0	
30817-000	5	5	1		1					1	35	0	
30817-000	6	36	1		1					1	36	0	
30817-000	7	45	1		1					1	34	0	
30817-000	8	20	1		1					1	30	0	
30817-000	9	49	1		1					1	35	0	
30817-000	10	14	1		1					1	15	0	
30816-005	1	29	1		1					1	28	0	
30816-005	2	23	1		1					1		-1	
30816-005	3	33	1		1					1	20	0	
30816-005	4	47	1		1					1	29	0	
30816-005	5	16	1		1					1	29	0	
30816-005	6	27	1		1					1	27	0	
30816-005	7	35	1		1					1	27	0	
30816-005	8	6	1		1					1	24	0	
30816-005	9	30	1		1					1	31	0	
30816-005	10	37	1		1					1	27	0	
30816-006	1	17	1		1					1	4	0	
30816-006	2	19	1		1					1	3	0	
30816-006	3	32	1		1					1	0	0	
30816-006	4	8	1		1					1	4	0	
30816-006	5	46	1		1					1	0	0	
30816-006	6	12	1		1					1	4	0	
30816-006	7	50	1		1					1	10	0	
30816-006	8	2	1		1					0	0	0	
30816-006	9	26	1		1					1	2	0	
30816-006	10	40	1		1					1	0	0	
30816-007	1	10	1		0					0	0	0	
30816-007	2	18	1		1					0	0	0	
30816-007	3	39	1		1					0	0	0	

CETIS Test Data Worksheet

Sample	Rep	Pos	# Exposed	1d Survival	2d Survival	3d Survival	4d Survival	5d Survival	6d Survival	7d Survival	Neonates	Male	Notes
30816-007	4	7	1		1					0	0	0	
30816-007	5	41	1		0					0	0	0	
30816-007	6	34	1		0					0	0	0	
30816-007	7	15	1		0					0	0	0	
30816-007	8	24	1		0					0	0	0	
30816-007	9	28	1		0					0	0	0	
30816-007	10	1	1		0					0	0	0	
30816-008	1	38	1		1					1	24	0	
30816-008	2	42	1		1					1		-1	
30816-008	3	22	1		1					1	24	0	
30816-008	4	44	1		1					1	28	0	
30816-008	5	25	1		1					1	28	0	
30816-008	6	9	1		1					1	25	0	
30816-008	7	11	1		1					1	26	0	
30816-008	8	31	1		1					1	22	0	
30816-008	9	4	1		1					1	21	0	
30816-008	10	3	1		1					1	32	0	

CETIS Summary Report

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Batch ID:	17-0246-8832	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	Lisa Bordonaro
Start Date:	03 Jul-18 15:20	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Not Applicable
Ending Date:	10 Jul-18 15:35	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Duration:	7d 0h	**Source:**	In-House Culture	**Age:**	<24h

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
30817-000	05-0805-4667	03 Jul-18	03 Jul-18	15h	Wood E+I	Ecological Risk Assessm
30816-005	04-0802-1646	02 Jul-18 09:15	03 Jul-18 08:00	30h		
30816-006	04-6060-3517	02 Jul-18 11:00	03 Jul-18 08:00	28h		
30816-007	04-5654-2187	02 Jul-18 12:00	03 Jul-18 08:00	27h		
30816-008	03-6288-2220	02 Jul-18 14:00	03 Jul-18 08:00	25h		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
30817-000	Laboratory Control Water	C-Lab	Laboratory Control	
30816-005	Surface Water	C-Lab	CSW-5; 30816-005	
30816-006	Surface Water	C-Lab	CSW-3A; 30816-006	
30816-007	Surface Water	C-Lab	CSW-3; 30816-007	
30816-008	Surface Water	C-Lab	CSW-BKG001; 30816-008	

Single Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
00-8873-4033	2d Proportion Survived	Fisher Exact Test	0.0015	30816-007 failed 2d proportion survived
10-5005-9201	7d Proportion Survived	Fisher Exact Test	1.0000	30816-005 passed 7d proportion survived
02-2532-0941	7d Proportion Survived	Fisher Exact Test	0.7632	30816-006 passed 7d proportion survived
18-4830-0349	7d Proportion Survived	Fisher Exact Test	6.0E-05	30816-007 failed 7d proportion survived
21-4092-9119	7d Proportion Survived	Fisher Exact Test	1.0000	30816-008 passed 7d proportion survived
12-3366-0119	Reproduction	Wilcoxon Rank Sum Two-Sample Test	0.0160	30816-005 failed reproduction
16-5228-8755	Reproduction	Wilcoxon Rank Sum Two-Sample Test	3.1E-04	30816-006 failed reproduction
10-8089-2092	Reproduction	Wilcoxon Rank Sum Two-Sample Test	6.0E-05	30816-007 failed reproduction
16-2343-2929	Reproduction	Wilcoxon Rank Sum Two-Sample Test	0.0183	30816-008 failed reproduction

2d Proportion Survived Summary

Sample	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
30817-000	MS	10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
30816-005		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
30816-006		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
30816-007		10	0.300	0.000	0.646	0.000	1.000	0.153	0.483	161.02%	70.00%
30816-008		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%

7d Proportion Survived Summary

Sample	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
30817-000	MS	10	0.900	0.674	1.000	0.000	1.000	0.100	0.316	35.14%	0.00%
30816-005		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	-11.11%
30816-006		10	0.900	0.674	1.000	0.000	1.000	0.100	0.316	35.14%	0.00%
30816-007		10	0.000	0.000	0.000	0.000	0.000	0.000	0.000		100.00%
30816-008		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	-11.11%

Reproduction Summary

Sample	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
30817-000	MS	10	28.7	20.2	37.2	0	36	3.75	11.9	41.29%	0.00%
30816-005		9	26.9	24.4	29.4	20	31	1.07	3.22	11.97%	6.31%
30816-006		10	2.7	0.462	4.94	0	10	0.989	3.13	115.88%	90.59%
30816-007		10	0	0	0	0	0	0	0		100.00%
30816-008		9	25.6	22.9	28.2	21	32	1.13	3.4	13.29%	10.96%

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

2d Proportion Survived Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
30817-000	MS	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
30816-005		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
30816-006		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
30816-007		0.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000
30816-008		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

7d Proportion Survived Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
30817-000	MS	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
30816-005		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
30816-006		1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	1.000	1.000
30816-007		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30816-008		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Reproduction Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
30817-000	MS	0	35	35	32	35	36	34	30	35	15
30816-005		28		20	29	29	27	27	24	31	27
30816-006		4	3	0	4	0	4	10	0	2	0
30816-007		0	0	0	0	0	0	0	0	0	0
30816-008		24		24	28	28	25	26	22	21	32

Ceriodaphnia 7-d Survival and Reproduction Test — **EnviroSystems, Inc.**

Analysis ID:	00-8873-4033	**Endpoint:**	2d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	20 Jul-18 11:41	**Analysis:**	Single 2x2 Contingency Table	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
30817-000	05-0805-4667	03 Jul-18	03 Jul-18	15h	Wood E+I	Ecological Risk Assessm
30816-007	04-5654-2187	02 Jul-18 12:00	03 Jul-18 08:00	27h		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
30817-000	Laboratory Control Water	C-Lab	Laboratory Control	
30816-007	Surface Water	C-Lab	CSW-3; 30816-007	

Fisher Exact Test

Sample I	vs	Sample II	Test Stat	P-Type	P-Value	Decision(α:5%)
Moderately Soft Lab		30816-007*	0.002	Exact	0.0015	Significant Effect

Data Summary

Sample	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
30817-000	MS	10	0	10	1	0	0.0%
30816-007		3	7	10	0.3	0.7	70.0%

2d Proportion Survived Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
30817-000	MS	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
30816-007		0.000	1.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	10-5005-9201	**Endpoint:**	7d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	20 Jul-18 11:13	**Analysis:**	Single 2x2 Contingency Table	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
30817-000	05-0805-4667	03 Jul-18	03 Jul-18	15h	Wood E+I	Ecological Risk Assessm
30816-005	04-0802-1646	02 Jul-18 09:15	03 Jul-18 08:00	30h		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
30817-000	Laboratory Control Water	C-Lab	Laboratory Control	
30816-005	Surface Water	C-Lab	CSW-5; 30816-005	

Fisher Exact Test

Sample I	vs	Sample II	Test Stat	P-Type	P-Value	Decision(α:5%)
Moderately Soft Lab		30816-005	1.000	Exact	1.0000	Non-Significant Effect

Data Summary

Sample	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
30817-000	MS	9	1	10	0.9	0.1	0.0%
30816-005		10	0	10	1	0	-11.1%

7d Proportion Survived Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
30817-000	MS	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
30816-005		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Ceriodaphnia 7-d Survival and Reproduction Test — **EnviroSystems, Inc.**

Analysis ID:	02-2532-0941	**Endpoint:**	7d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	20 Jul-18 11:13	**Analysis:**	Single 2x2 Contingency Table	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
30817-000	05-0805-4667	03 Jul-18	03 Jul-18	15h	Wood E+I	Ecological Risk Assessm
30816-006	04-6060-3517	02 Jul-18 11:00	03 Jul-18 08:00	28h		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
30817-000	Laboratory Control Water	C-Lab	Laboratory Control	
30816-006	Surface Water	C-Lab	CSW-3A; 30816-006	

Fisher Exact Test

Sample I	vs	Sample II	Test Stat	P-Type	P-Value	Decision(α:5%)
Moderately Soft Lab		30816-006	0.763	Exact	0.7632	Non-Significant Effect

Data Summary

Sample	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
30817-000	MS	9	1	10	0.9	0.1	0.0%
30816-006		9	1	10	0.9	0.1	0.0%

7d Proportion Survived Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
30817-000	MS	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
30816-006		1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	1.000	1.000

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	18-4830-0349	**Endpoint:**	7d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	20 Jul-18 11:14	**Analysis:**	Single 2x2 Contingency Table	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
30817-000	05-0805-4667	03 Jul-18	03 Jul-18	15h	Wood E+I	Ecological Risk Assessm
30816-007	04-5654-2187	02 Jul-18 12:00	03 Jul-18 08:00	27h		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
30817-000	Laboratory Control Water	C-Lab	Laboratory Control	
30816-007	Surface Water	C-Lab	CSW-3; 30816-007	

Fisher Exact Test

Sample I	vs	Sample II	Test Stat	P-Type	P-Value	Decision(α:5%)
Moderately Soft Lab		30816-007*	0.000	Exact	6.0E-05	Significant Effect

Data Summary

Sample	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
30817-000	MS	9	1	10	0.9	0.1	0.0%
30816-007		0	10	10	0	1	100.0%

7d Proportion Survived Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
30817-000	MS	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
30816-007		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	21-4092-9119	**Endpoint:**	7d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	20 Jul-18 11:14	**Analysis:**	Single 2x2 Contingency Table	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
30817-000	05-0805-4667	03 Jul-18	03 Jul-18	15h	Wood E+I	Ecological Risk Assessm
30816-008	03-6288-2220	02 Jul-18 14:00	03 Jul-18 08:00	25h		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
30817-000	Laboratory Control Water	C-Lab	Laboratory Control	
30816-008	Surface Water	C-Lab	CSW-BKG001; 30816-008	

Fisher Exact Test

Sample I	vs	Sample II	Test Stat	P-Type	P-Value	Decision(α:5%)
Moderately Soft Lab		30816-008	1.000	Exact	1.0000	Non-Significant Effect

Data Summary

Sample	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
30817-000	MS	9	1	10	0.9	0.1	0.0%
30816-008		10	0	10	1	0	-11.1%

7d Proportion Survived Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
30817-000	MS	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
30816-008		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	12-3366-0119	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.9.3
Analyzed:	20 Jul-18 11:13	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
30817-000	05-0805-4667	03 Jul-18	03 Jul-18	15h	Wood E+I	Ecological Risk Assessm
30816-005	04-0802-1646	02 Jul-18 09:15	03 Jul-18 08:00	30h		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
30817-000	Laboratory Control Water	C-Lab	Laboratory Control	
30816-005	Surface Water	C-Lab	CSW-5; 30816-005	

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	30816-005 failed reproduction	24.79%

Wilcoxon Rank Sum Two-Sample Test

Sample I	vs	Sample II	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)
Moderately Soft Lab		30816-005*	64	n/a	0	17	Exact	0.0160	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	15.5374	15.5374	1	0.196	0.6635	Non-Significant Effect
Error	1346.99	79.2346	17			
Total	1362.53		18			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F Test	13.6	7.34	0.0012	Unequal Variances
Distribution	Shapiro-Wilk W Normality Test	0.725	0.861	1.1E-04	Non-Normal Distribution

Reproduction Summary

Sample	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
30817-000	MS	10	28.7	20.2	37.2	34.5	0	36	3.75	41.29%	0.00%
30816-005		9	26.9	24.4	29.4	27	20	31	1.07	11.97%	6.31%

Reproduction Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
30817-000	MS	0	35	35	32	35	36	34	30	35	15
30816-005		28	20	29	29	27	27	24	31	27	

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	16-5228-8755	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.9.3
Analyzed:	20 Jul-18 11:13	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
30817-000	05-0805-4667	03 Jul-18	03 Jul-18	15h	Wood E+I	Ecological Risk Assessm
30816-006	04-6060-3517	02 Jul-18 11:00	03 Jul-18 08:00	28h		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
30817-000	Laboratory Control Water	C-Lab	Laboratory Control	
30816-006	Surface Water	C-Lab	CSW-3A; 30816-006	

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	30816-006 failed reproduction	23.42%

Wilcoxon Rank Sum Two-Sample Test

Sample I	vs	Sample II	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)
Moderately Soft Lab		30816-006*	63	n/a	1	18	Exact	3.1E-04	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3380	3380	1	45	2.7E-06	Significant Effect
Error	1352.2	75.1222	18			
Total	4732.2		19			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F Test	14.3	6.54	5.0E-04	Unequal Variances
Distribution	Shapiro-Wilk W Normality Test	0.735	0.866	1.1E-04	Non-Normal Distribution

Reproduction Summary

Sample	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
30817-000	MS	10	28.7	20.2	37.2	34.5	0	36	3.75	41.29%	0.00%
30816-006		10	2.7	0.462	4.94	2.5	0	10	0.989	115.88%	90.59%

Reproduction Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
30817-000	MS	0	35	35	32	35	36	34	30	35	15
30816-006		4	3	0	4	0	4	10	0	2	0

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	10-8089-2092	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.9.3
Analyzed:	20 Jul-18 11:14	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
30817-000	05-0805-4667	03 Jul-18	03 Jul-18	15h	Wood E+I	Ecological Risk Assessm
30816-007	04-5654-2187	02 Jul-18 12:00	03 Jul-18 08:00	27h		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
30817-000	Laboratory Control Water	C-Lab	Laboratory Control	
30816-007	Surface Water	C-Lab	CSW-3; 30816-007	

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	30816-007 failed reproduction	22.64%

Wilcoxon Rank Sum Two-Sample Test

Sample I	vs	Sample II	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)
Moderately Soft Lab		30816-007*	60	n/a	1	18	Exact	6.0E-05	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4118.45	4118.45	1	58.6	4.5E-07	Significant Effect
Error	1264.1	70.2278	18			
Total	5382.55		19			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Levene Equality of Variance Test	11.9	8.29	0.0029	Unequal Variances
Variances	Mod Levene Equality of Variance Test	3.23	8.29	0.0892	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.647	0.866	9.4E-06	Non-Normal Distribution

Reproduction Summary

Sample	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
30817-000	MS	10	28.7	20.2	37.2	34.5	0	36	3.75	41.29%	0.00%
30816-007		10	0	0	0	0	0	0	0		100.00%

Reproduction Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
30817-000	MS	0	35	35	32	35	36	34	30	35	15
30816-007		0	0	0	0	0	0	0	0	0	0

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	16-2343-2929	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.9.3
Analyzed:	20 Jul-18 11:14	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
30817-000	05-0805-4667	03 Jul-18	03 Jul-18	15h	Wood E+I	Ecological Risk Assessm
30816-008	03-6288-2220	02 Jul-18 14:00	03 Jul-18 08:00	25h		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
30817-000	Laboratory Control Water	C-Lab	Laboratory Control	
30816-008	Surface Water	C-Lab	CSW-BKG001; 30816-008	

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	30816-008 failed reproduction	24.88%

Wilcoxon Rank Sum Two-Sample Test

Sample I	vs	Sample II	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)
Moderately Soft Lab		30816-008*	64.5	n/a	1	17	Exact	0.0183	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	46.8357	46.8357	1	0.587	0.4541	Non-Significant Effect
Error	1356.32	79.7837	17			
Total	1403.16		18			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F Test	12.2	7.34	0.0018	Unequal Variances
Distribution	Shapiro-Wilk W Normality Test	0.74	0.861	1.7E-04	Non-Normal Distribution

Reproduction Summary

Sample	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
30817-000	MS	10	28.7	20.2	37.2	34.5	0	36	3.75	41.29%	0.00%
30816-008		9	25.6	22.9	28.2	25	21	32	1.13	13.29%	10.96%

Reproduction Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
30817-000	MS	0	35	35	32	35	36	34	30	35	15
30816-008		24	24	28	28	25	26	22	21	32	

Ceriodaphnia dubia - Blocking by Parentage Tracking Sheet

ESI #: 30817

CLIENT: Wood

START DATE: 07/03/18

START TIME: 1520

INITIAL: MS

COLUMN added to	*C. dubia* ADULT USED board #	cup#
A	MSR 806	1C
B		1G
C		1I
D		3D
E		4A
F	MHR 753	1E
G		1G
H		2B
I		2C
J		3D

Ceriodaphnia dubia CHRONIC REPRODUCTION ASSAY
FRESHWATER CHRONIC ASSAY - NEW WATER QUALITIES

STUDY: 30718 8/7 07/13 CLIENT: Wood E+I SAMPLE: DILUENT: NONE

NEW DISSOLVED OXYGEN (mg/L)

CONC*	REP	0	1	2	3	4	5	6	7
LAB	A	8.6	7.6	8.7	8.5	8.9	8.9	8.7	
CSW -5	A	7.5	7.6	8.4	8.5	9.1	9.2	8.9	
CSW -3A	A	9.0	7.5	8.7	8.6	9.2	9.4	9.1	
CSW -3	A	7.7	7.5	8.8	8.9				
CSW-BKG001	A	7.4	7.8	8.4	8.3	9.3	9.3	9.0	

NEW pH (SU)

CONC*	REP	0	1	2	3	4	5	6	7
LAB	A	7.78	7.66	7.77	7.72	7.88	7.85	7.92	
CSW -5	A	6.97	7.38	7.00	7.05	7.22	7.18	7.15	
CSW -3A	A	7.03	7.07	7.05	7.04	7.29	7.30	7.24	
CSW -3	A	6.65	6.90	6.69	6.71				
CSW-BKG001	A	6.66	6.76	6.67	6.61	6.97	7.01	6.95	

NEW SPECIFIC CONDUCTIVITY (µMHOS/CM)

CONC*	REP	0	1	2	3	4	5	6	7
LAB	A	194	187	188	194	178	183	191	
CSW -5	A	428	410	418	418	386	405	448	
CSW -3A	A	348	336	339	341	318	330	371	
CSW -3	A	305	279	293	295				
CSW-BKG001	A	343	291	333	334	307	321	358	

Temperature (°C)

CONC*	REP	0	1	2	3	4	5	6	7
LAB	A	25	21	22	24	21	21	23	
CSW -5	A	25	22	23	24	20	22	25	
CSW -3A	A	25	23	23	24	21	22	25	
CSW -3	A	25	22	24	24				
CSW-BKG001	A	25	20	24	24	21	22	25	

INC TEMP:	25	25	25	25	25	25	25	
DATE:	07/03/18	07/4	07/05	7/6	07/07	07/08/18	07/09/18	
TIME:	1500	0930	0930	1050	1035	1030	1145	
INIT:	MS	KB	CFS	MW	CFS	MS	MS	

Ceriodaphnia dubia CHRONIC REPRODUCTION ASSAY
OLD WATER QUALITIES

STUDY:30817 CLIENT: Wood E+I SAMPLE: DILUENT: NONE

CONC	DAY	pH	DO	S/C	CONC	DAY	pH	DO	S/C	INC. TEMP	INITIALS
LAB	1	7.75	7.7	201	CSW -BKG 001	1	8.03	7.5	332	25	KB
	2	7.66	8.7	197		2	7.96	8.8	334	25	MW
	3	7.68	8.4	217		3	7.85	8.5	343	26	MW
	4	7.88	8.8	192		4	8.05	8.8	331	25	CFS
	5	7.78	8.7	222		5	8.05	8.7	344	25	MS
	6	7.84	8.4	216		6	8.04	8.4	357	25	JTP
	7	7.75	8.3	213		7	8.00	8.4	356	26	GRS
	8					8					
CSW -5	1	7.91	7.6	415							
	2	8.03	8.6	418							
	3	7.97	8.3	440							
	4	8.02	8.9	402							
	5	8.13	8.7	442							
	6	8.14	8.4	447							
	7	7.99	8.4	457							
	8										
CSW -3A	1	8.06	7.5	343							
	2	8.08	8.7	344							
	3	8.02	8.3	366							
	4	8.14	8.9	331							
	5	8.17	8.7	363							
	6	8.16	8.4	373							
	7	8.10	8.4	371							
	8										
CSW -3	1	8.09	7.5	297							
	2	8.06	8.7	308							
	3	8.03	8.5	370							
	4										
	5										
	6										
	7										
	8										

Ceriodaphnia dubia CHRONIC REPRODUCTION ASSAY

METER USE RECORD

STUDY: 30718 (817) 07/13	CLIENT: Wood E+I

OLD WATER QUALITIES - *C. dubia*

	0	1	2	3	4	5	6	7	8
Water Quality Station #		2	2	2	2	2	2	2	
Initials		KB	MW	MW	CFS	MS	JTP	GRS	

NEW WATER QUALITIES - *C. dubia*

	0	1	2	3	4	5	6	7	8
Water Quality Station #	2	2	2	2	2	2	2		
Initials	MS	KB	CFS	MW	CFS	MS	MS		
Date	07/03/18	07/4	07/05	07/06	07/07	07/03/18	07/09/18	07/10/18	

Water Quality Station		Water Quality Station 2		COMMENTS
DO meter #		DO meter #	ML01	
DO probe #		DO probe #	96	
pH meter #		pH meter #	ML01	
pH probe #		pH probe #	152	
S/C meter #		S/C meter #	1	

Ceriodaphnia dubia Chronic Reproduction Assay

STUDY#	CONC	Day	A	B	C	D	E	F	G	H	I	J	SUM	SURV	
30817	LAB	0	+	+	+	+	+	+	+	+	+	+	0	10	
CLIENT: Wood Group		1	+	+	+	+	+	+	+	+	+	+	0	10	
		2	+	+	+	+	+	+	+	+	+	+	0	10	
		3	+	+	+	+	+	+	+	+	+	+	0	10	
SAMPLE: CSW-3		4	7	8	9	7	6	6	7	+	6	5	61	10	90
DILUENT: MSR		5	14	+	+	11	9	7	12	5	9	12	79	10	
		6	+	16	11	+	+	+	+	10	+	+	37	10	
Cerio Data		7	19	17	14	22	19	18	16	+	16	18	159	10	
source: RB ☒		8													
		Total	40	41	34	40	34	31	35	15	31	35	336	10	
MHR ☐	6.25%	0	+	+	+	+	+	+	+	+	+	+	0	10	
collected:		1	+	+	+	+	+	+	+	+	+	+	0	10	
previous pm ☐		2	+	+	+	+	+	+	+	+	+	+	0	10	
test day am ☒		3	+	+	+	+	+	+	+	+	+	+	0	10	
Day 0 7/6 Time: 1215 Initial: MW		4	6	8	8	7	4	6	6	8	+	4	57	10	90
		5	12	+	+	9	4	6	12	7	14	11	75	10	
Day 1 7/7/18 Time: 1050 Initial: MW		6	+	13	12	+	6	+	+	10	+	+	41	10	
		7	13	16	17	18	10	14	13	+	15	21	137	10	
Day 2 07/08/18 Time: 1325 Initial: MS		8			3♂ 7/9/18										
		Total	31	37	37	34	24	26	31	25	29	36	310	10	
Day 3 07/09/18 Time: 1500 Initial: MS	12.5%	0	+	+	+	+	+	+	+	+	+	+	0	10	
		1	+	+	+	+	+	+	+	+	+	+	0	10	
Day 4 7/10/18 Time: 1227 Initial: MW		2	+	+	+	+	+	+	+	+	+	+	0	10	
		3	+	+	+	+	+	+	+	+	+	+	0	10	90
Day 5 07/11/18 Time: 1410 Initial: MS		4	6	5	5	7	4	5	4	6	+	5	47	10	
		5	12	+	+	9	10	9	11	6	12	12	81	10	
Day 6 7/12/18 Time: 1215 Initial: MW		6	+	12	13	+	+	+	+	10	+	+	35	10	
		7	14	13	15	15	17	10	14	+	13	17	128	10	
Day 7 07/13/18 Time: 1155 Initial: BG		8													
		Total	32	30	33	31	31	24	29	22	25	34	291	10	
Day 8 Time: Initial:	25%	0	+	+	+	+	+	+	+	+	+	+	0	10	
		1	+	+	+	+	+	+	+	+	+	+	0	10	
LEGEND:		2	+	+	+	+	+	+	+	+	+	+	0	10	
+ = Live		3	+	+	+	+	+	+	+	+	+	+	0	10	80
- = Dead		4	7	7	5	6	5	+	6	+	4	7	47	10	
♂ = Male		5	14	+	+	12	+	6	+	10	8	12	62	10	
M = Missing		6	+	14	11	+	12	9	10	12	+	+	68	10	
Calculations:		7	14	10	12	13	14	+	10	+	9	16	98	10	
Initials: LB		8													
Date: 7/19/18		Total	35	31	28	31	31	15	26	22	21	35	275	10	

Ceriodaphnia dubia Chronic Reproduction Assay

STUDY# 30817

CLIENT: Wood Group

SAMPLE: CSW-3

DILUENT: MSR

Cerio Data source: RB ☒ MHR ☐

collected: previous pm ☐ test day am ☒

Day 0 7/6/18 Time: 1205 Initial: MW

Day 1 7/7/18 Time: 1050 Initial: MW

Day 2 07/08/18 Time: 1325 Initial: MS

Day 3 07/09/18 Time: 1500 Initial: MS

Day 4 7/10/18 Time: 1227 Initial: MW

Day 5 07/11/18 Time: 1440 Initial: MS

Day 6 7/12/18 Time: 1215 Initial: MW

Day 7 07/13/18 Time: 1155 Initial: DG

Day 8 Time: Initial:

LEGEND:

+ = Live

- = Dead

♂ = Male

M = Missing

Calculations: Initials: LB Date: 7/19/18

CONC	Day	A	B	C	D	E	F	G	H	I	J	SUM	SURV	
50%	0	+	+	+	+	+	+	+	+	+	+	0	10	
	1	+	+	+	+	+	+	+	+	+	+	0	10	
	2	+	+	+	+	+	+	+	+	+	+	0	10	
	3	+	+	+	+	+	+	+	+	+	-	0	9	
	4	8	+	7	7	5	+	8	+	5		40	9	50
	5	+	+	+	+	+	+	+	5	+		5	9	
	6	9	9	9	8	11	+	7	9	+		62	9	
	7	7	7	10	12	11	9	9	+	4		69	9	
	8	—	—	—	—	—	—	—	—	—	↓	—	—	
	Total	24	16	26	27	27	9	24	14	9	0	176	9	
100%	0	+	+	+	+	+	+	+	+	+	+	0	10	
	1	+	+	-	+	-	+	+	+	-	+	0	7	
	2	-	-		+		+	+	+			0	4	
	3				-		-	-	-			0	0	0
	4													
	5													
	6													
	7													
	8	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
	Total	0	0	0	0	0	0	0	0	0	0	0	0	

CETIS Test Data Worksheet

Ceriodaphnia 7-d Survival and Reproduction Test — **EnviroSystems, Inc.**

Start Date: 06 Jul-18 12:05 **Species:** Ceriodaphnia dubia **Sample Code:** 30817
End Date: 13 Jul-18 11:55 **Protocol:** EPA/821/R-02-013 (2002) **Sample Source:** C-Lab
Sample Date: 02 Jul-18 12:00 **Material:** Surface Water **Sample Station:** CSW-3; 30816-007

Conc-NA	Code	Rep	Pos	# Exposed	1d Survival	2d Survival	3d Survival	4d Survival	5d Survival	6d Survival	7d Survival	Neonates	Male	Notes
0	MS	1	7	1		1					1	40	0	
0	MS	2	4	1		1					1	41	0	
0	MS	3	21	1		1					1	34	0	
0	MS	4	8	1		1					1	40	0	
0	MS	5	31	1		1					1	34	0	
0	MS	6	1	1		1					1	31	0	
0	MS	7	45	1		1					1	35	0	
0	MS	8	34	1		1					1	15	0	
0	MS	9	9	1		1					1	31	0	
0	MS	10	57	1		1					1	35	0	
6.25		1	6	1		1					1	31	0	
6.25		2	3	1		1					1	37	0	
6.25		3	60	1		1					1	37	0	
6.25		4	17	1		1					1	34	0	
6.25		5	56	1		1					1	24	0	
6.25		6	10	1		1					1	26	0	
6.25		7	52	1		1					1	31	0	
6.25		8	35	1		1					1	25	0	
6.25		9	50	1		1					1	29	0	
6.25		10	22	1		1					1	36	0	
12.5		1	36	1		1					1	32	0	
12.5		2	27	1		1					1	30	0	
12.5		3	2	1		1					1	33	0	
12.5		4	30	1		1					1	31	0	
12.5		5	11	1		1					1	31	0	
12.5		6	5	1		1					1	24	0	
12.5		7	53	1		1					1	29	0	
12.5		8	40	1		1					1	22	0	
12.5		9	16	1		1					1	25	0	
12.5		10	41	1		1					1	34	0	
25		1	28	1		1					1	35	0	
25		2	12	1		1					1	31	0	
25		3	13	1		1					1	28	0	

CETIS Test Data Worksheet

Conc-NA	Code	Rep	Pos	# Exposed	1d Survival	2d Survival	3d Survival	4d Survival	5d Survival	6d Survival	7d Survival	Neonates	Male	Notes
25		4	43	1		1					1	31	0	
25		5	14	1		1					1	31	0	
25		6	55	1		1					1	15	0	
25		7	24	1		1					1	26	0	
25		8	44	1		1					1	22	0	
25		9	19	1		1					1	21	0	
25		10	39	1		1					1	35	0	
50		1	59	1		1					1	24	0	
50		2	37	1		1					1	16	0	
50		3	25	1		1					1	26	0	
50		4	38	1		1					1	27	0	
50		5	58	1		1					1	27	0	
50		6	20	1		1					1	9	0	
50		7	18	1		1					1	24	0	
50		8	54	1		1					1	14	0	
50		9	23	1		1					1	9	0	
50		10	32	1		1					0	0	0	
100		1	42	1		0					0	0	0	
100		2	26	1		0					0	0	0	
100		3	49	1		0					0	0	0	
100		4	46	1		1					0	0	0	
100		5	33	1		0					0	0	0	
100		6	47	1		1					0	0	0	
100		7	15	1		1					0	0	0	
100		8	51	1		1					0	0	0	
100		9	29	1		0					0	0	0	
100		10	48	1		0					0	0	0	

CETIS Summary Report

Ceriodaphnia 7-d Survival and Reproduction Test — **EnviroSystems, Inc.**

Batch ID:	18-6220-6685	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	Lisa Bordonaro
Start Date:	06 Jul-18 12:05	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Mod-Soft Synthetic Water
Ending Date:	13 Jul-18 11:55	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Duration:	7d	**Source:**	In-House Culture	**Age:**	<24h

Sample ID:	03-9745-6682	**Code:**	30817	**Client:**	Wood E+I
Sample Date:	02 Jul-18 12:00	**Material:**	Surface Water	**Project:**	Special Studies
Receipt Date:	03 Jul-18 08:00	**Source:**	C-Lab		
Sample Age:	4d 0h	**Station:**	CSW-3; 30816-007		

Multiple Comparison Summary

Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	TU	PMSD	✓
18-3182-6552	2d Proportion Survived	Fisher Exact/Bonferroni-Holm Test	50	100	70.71		n/a	
08-2510-2642	7d Proportion Survived	Fisher Exact/Bonferroni-Holm Test	50	100	70.71		n/a	
12-9946-0134	Reproduction	Dunnett Multiple Comparison Test	25	50	35.36		20.0%	✓

Point Estimate Summary

Analysis ID	Endpoint	Point Estimate Method	Level	NA	95% LCL	95% UCL	TU	✓
09-4692-4675	2d Proportion Survived	Trimmed Spearman-Kärber	EC50	89.1	66.1	120		
07-2529-6841	7d Proportion Survived	Linear Interpolation (ICPIN)	EC25	56.2	44.6	59.5		
02-6361-5452	Reproduction	Linear Interpolation (ICPIN)	IC25	29.4	12.4	42.7		✓

2d Proportion Survived Summary

Conc-NA	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	MS	10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
6.25		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
12.5		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
25		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
50		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
100		10	0.400	0.031	0.769	0.000	1.000	0.163	0.516	129.10%	60.00%

7d Proportion Survived Summary

Conc-NA	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	MS	10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
6.25		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
12.5		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
25		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
50		10	0.900	0.674	1.000	0.000	1.000	0.100	0.316	35.14%	10.00%
100		10	0.000	0.000	0.000	0.000	0.000	0.000	0.000		100.00%

Reproduction Summary

Conc-NA	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	MS	10	33.6	28.3	38.9	15	41	2.36	7.46	22.19%	0.00%
6.25		10	31	27.5	34.5	24	37	1.56	4.94	15.95%	7.74%
12.5		10	29.1	26.2	32	22	34	1.29	4.07	13.98%	13.39%
25		10	27.5	22.8	32.2	15	35	2.06	6.5	23.64%	18.15%
50		10	17.6	10.8	24.4	0	27	2.99	9.44	53.65%	47.62%
100		10	0	0	0	0	0	0	0		100.00%

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

2d Proportion Survived Detail

Conc-NA	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	MS	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
6.25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
12.5		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
100		0.000	0.000	0.000	1.000	0.000	1.000	1.000	1.000	0.000	0.000

7d Proportion Survived Detail

Conc-NA	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	MS	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
6.25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
12.5		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000
100		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Reproduction Detail

Conc-NA	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	MS	40	41	34	40	34	31	35	15	31	35
6.25		31	37	37	34	24	26	31	25	29	36
12.5		32	30	33	31	31	24	29	22	25	34
25		35	31	28	31	31	15	26	22	21	35
50		24	16	26	27	27	9	24	14	9	0
100		0	0	0	0	0	0	0	0	0	0

CETIS Analytical Report

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	09-4692-4675	**Endpoint:**	2d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	20 Jul-18 11:42	**Analysis:**	Trimmed Spearman-Kärber	**Official Results:**	Yes
Sample ID:	03-9745-6682	**Code:**	30817	**Client:**	Wood E+I
Sample Date:	02 Jul-18 12:00	**Material:**	Surface Water	**Project:**	Special Studies
Receipt Date:	03 Jul-18 08:00	**Source:**	C-Lab		
Sample Age:	4d 0h	**Station:**	CSW-3; 30816-007		

Trimmed Spearman-Kärber Estimates

Threshold Option	Threshold	Trim	Mu	Sigma	EC50	95% LCL	95% UCL
Control Threshold	0	40.00%	1.95	0.0648	89.1	66.1	120

2d Proportion Survived Summary

			Calculated Variate(A/B)							Isotonic Variate	
Conc-NA	Code	Count	Mean	Min	Max	Std Dev	CV%	%Effect	A/B	Mean	%Effect
0	MS	10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
6.25		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
12.5		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
25		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
50		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
100		10	0.400	0.000	1.000	0.516	129.00%	60.0%	4/10	0.4	60.0%

2d Proportion Survived Detail

Conc-NA	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	MS	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
6.25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
12.5		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
100		0.000	0.000	0.000	1.000	0.000	1.000	1.000	1.000	0.000	0.000

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	18-3182-6552	**Endpoint:**	2d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	20 Jul-18 11:38	**Analysis:**	STP 2xK Contingency Tables	**Official Results:**	Yes
Sample ID:	03-9745-6682	**Code:**	30817	**Client:**	Wood E+I
Sample Date:	02 Jul-18 12:00	**Material:**	Surface Water	**Project:**	Special Studies
Receipt Date:	03 Jul-18 08:00	**Source:**	C-Lab		
Sample Age:	4d 0h	**Station:**	CSW-3; 30816-007		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	TU
Untransformed	C > T	50	100	70.71	

Fisher Exact/Bonferroni-Holm Test

Control	vs	Group	Test Stat	P-Type	P-Value	Decision(α:5%)
Moderately Soft		6.25	1.000	Exact	1.0000	Non-Significant Effect
		12.5	1.000	Exact	1.0000	Non-Significant Effect
		25	1.000	Exact	1.0000	Non-Significant Effect
		50	1.000	Exact	1.0000	Non-Significant Effect
		100*	0.005	Exact	0.0271	Significant Effect

Data Summary

Conc-NA	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
0	MS	10	0	10	1	0	0.0%
6.25		10	0	10	1	0	0.0%
12.5		10	0	10	1	0	0.0%
25		10	0	10	1	0	0.0%
50		10	0	10	1	0	0.0%
100		4	6	10	0.4	0.6	60.0%

2d Proportion Survived Detail

Conc-NA	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	MS	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
6.25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
12.5		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
100		0.000	0.000	0.000	1.000	0.000	1.000	1.000	1.000	0.000	0.000

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	08-2510-2642	**Endpoint:**	7d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	20 Jul-18 7:49	**Analysis:**	STP 2xK Contingency Tables	**Official Results:**	Yes
Sample ID:	03-9745-6682	**Code:**	30817	**Client:**	Wood E+I
Sample Date:	02 Jul-18 12:00	**Material:**	Surface Water	**Project:**	Special Studies
Receipt Date:	03 Jul-18 08:00	**Source:**	C-Lab		
Sample Age:	4d 0h	**Station:**	CSW-3; 30816-007		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	TU
Untransformed	C > T	50	100	70.71	

Fisher Exact/Bonferroni-Holm Test

Control	vs	Group	Test Stat	P-Type	P-Value	Decision(α:5%)
Moderately Soft		6.25	1.000	Exact	1.0000	Non-Significant Effect
		12.5	1.000	Exact	1.0000	Non-Significant Effect
		25	1.000	Exact	1.0000	Non-Significant Effect
		50	0.500	Exact	1.0000	Non-Significant Effect
		100*	0.000	Exact	2.7E-05	Significant Effect

Data Summary

Conc-NA	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
0	MS	10	0	10	1	0	0.0%
6.25		10	0	10	1	0	0.0%
12.5		10	0	10	1	0	0.0%
25		10	0	10	1	0	0.0%
50		9	1	10	0.9	0.1	10.0%
100		0	10	10	0	1	100.0%

7d Proportion Survived Detail

Conc-NA	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	MS	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
6.25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
12.5		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000
100		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CETIS Analytical Report

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	07-2529-6841	**Endpoint:**	7d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	20 Jul-18 7:50	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes
Sample ID:	03-9745-6682	**Code:**	30817	**Client:**	Wood E+I
Sample Date:	02 Jul-18 12:00	**Material:**	Surface Water	**Project:**	Special Studies
Receipt Date:	03 Jul-18 08:00	**Source:**	C-Lab		
Sample Age:	4d 0h	**Station:**	CSW-3; 30816-007		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Log(X+1)	Linear	2046149	200	Yes	Two-Point Interpolation

Point Estimates

Level	NA	95% LCL	95% UCL
EC25	56.2	44.6	59.5

7d Proportion Survived Summary

			Calculated Variate(A/B)							Isotonic Variate	
Conc-NA	Code	Count	Mean	Min	Max	Std Dev	CV%	%Effect	A/B	Mean	%Effect
0	MS	10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
6.25		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
12.5		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
25		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
50		10	0.900	0.000	1.000	0.316	35.10%	10.0%	9/10	0.9	10.0%
100		10	0.000	0.000	0.000	0.000		100.0%	0/10	0	100.0%

7d Proportion Survived Detail

Conc-NA	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	MS	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
6.25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
12.5		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000
100		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CETIS Analytical Report

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	12-9946-0134	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.9.3
Analyzed:	20 Jul-18 7:49	**Analysis:**	Parametric-Control vs Treatments	**Official Results:**	Yes
Sample ID:	03-9745-6682	**Code:**	30817	**Client:**	Wood E+I
Sample Date:	02 Jul-18 12:00	**Material:**	Surface Water	**Project:**	Special Studies
Receipt Date:	03 Jul-18 08:00	**Source:**	C-Lab		
Sample Age:	4d 0h	**Station:**	CSW-3; 30816-007		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	C > T	25	50	35.36		19.98%

Dunnett Multiple Comparison Test

Control	vs	Conc-NA	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)
Moderately Soft		6.25	0.861	2.22	6.71	18	CDF	0.4380	Non-Significant Effect
		12.5	1.49	2.22	6.71	18	CDF	0.1943	Non-Significant Effect
		25	2.02	2.22	6.71	18	CDF	0.0759	Non-Significant Effect
		50*	5.3	2.22	6.71	18	CDF	7.5E-06	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1496.92	374.23	4	8.21	4.7E-05	Significant Effect
Error	2052.2	45.6044	45			
Total	3549.12		49			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance Test	7.28	13.3	0.1218	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.94	0.937	0.0133	Normal Distribution

Reproduction Summary

Conc-NA	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	MS	10	33.6	28.3	38.9	34.5	15	41	2.36	22.19%	0.00%
6.25		10	31	27.5	34.5	31	24	37	1.56	15.95%	7.74%
12.5		10	29.1	26.2	32	30.5	22	34	1.29	13.98%	13.39%
25		10	27.5	22.8	32.2	29.5	15	35	2.06	23.64%	18.15%
50		10	17.6	10.8	24.4	20	0	27	2.99	53.65%	47.62%
100		10	0	0	0	0	0	0	0		100.00%

Reproduction Detail

Conc-NA	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	MS	40	41	34	40	34	31	35	15	31	35
6.25		31	37	37	34	24	26	31	25	29	36
12.5		32	30	33	31	31	24	29	22	25	34
25		35	31	28	31	31	15	26	22	21	35
50		24	16	26	27	27	9	24	14	9	0
100		0	0	0	0	0	0	0	0	0	0

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	02-6361-5452	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.9.3
Analyzed:	20 Jul-18 7:50	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes
Sample ID:	03-9745-6682	**Code:**	30817	**Client:**	Wood E+I
Sample Date:	02 Jul-18 12:00	**Material:**	Surface Water	**Project:**	Special Studies
Receipt Date:	03 Jul-18 08:00	**Source:**	C-Lab		
Sample Age:	4d 0h	**Station:**	CSW-3; 30816-007		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Log(X+1)	Linear	274330	200	Yes	Two-Point Interpolation

Point Estimates

Level	NA	95% LCL	95% UCL
IC25	29.4	12.4	42.7

Reproduction Summary

			Calculated Variate						Isotonic Variate	
Conc-NA	Code	Count	Mean	Min	Max	Std Dev	CV%	%Effect	Mean	%Effect
0	MS	10	33.6	15	41	7.46	22.20%	0.0%	33.6	0.0%
6.25		10	31	24	37	4.94	15.90%	7.74%	31	7.74%
12.5		10	29.1	22	34	4.07	14.00%	13.4%	29.1	13.4%
25		10	27.5	15	35	6.5	23.60%	18.2%	27.5	18.2%
50		10	17.6	0	27	9.44	53.60%	47.6%	17.6	47.6%
100		10	0	0	0	0		100.0%	0	100.0%

Reproduction Detail

Conc-NA	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	MS	40	41	34	40	34	31	35	15	31	35
6.25		31	37	37	34	24	26	31	25	29	36
12.5		32	30	33	31	31	24	29	22	25	34
25		35	31	28	31	31	15	26	22	21	35
50		24	16	26	27	27	9	24	14	9	0
100		0	0	0	0	0	0	0	0	0	0

Ceriodaphnia dubia - Blocking by Parentage Tracking Sheet

ESI #: 30817

CLIENT: Wood Group

START DATE: 07/06/18

START TIME: 1205

INITIAL: MW

COLUMN added to	*C. dubia* ADULT USED board #	cup#
A	MSR 802	2A
B		2D
C		4H
D		5B
E		5I
F	MSR 803	1H
G		1I
H		2A
I		2E
J		2F

Ceriodaphnia dubia CHRONIC REPRODUCTION ASSAY

FRESHWATER CHRONIC ASSAY - NEW WATER QUALITIES

STUDY:30817 CLIENT: Wood Group SAMPLE: CSW-3 DILUENT: MSR

NEW DISSOLVED OXYGEN (mg/L)

CONC*	REP	0	1	2	3	4	5	6	7
LAB	A	8.4	8.9	9.1	8.7	8.7	9.1	8.8	
6.25%	A	8.4	8.9	8.9	8.7	8.7	9.2	9.3	
12.5%	A	8.5	8.9	9.0	8.7	8.7	9.2	9.2	
25%	A	8.5	8.9	9.0	8.7	8.7	9.4	8.9	
50%	A	8.6	9.0	9.0	8.7	8.7	9.7	9.3	
100%	A	8.8	9.0	9.0	8.7	8.9			

NEW pH (SU)

0	1	2	3	4	5	6	7
7.75	7.91	7.90	7.71	7.82	7.81	7.77	
7.51	7.68	7.72	7.66	7.79	7.70	7.66	
7.37	7.57	7.55	7.64	7.69	7.57	7.67	
7.19	7.35	7.31	7.35	7.57	7.42	7.38	
7.00	7.05	7.10	7.10	7.37	7.19	7.20	
6.70	6.80	6.89	6.86	7.11			

NEW SPECIFIC CONDUCTIVITY (µMHOS/CM)

CONC*	REP	0	1	2	3	4	5	6	7
LAB	A	193	180	186	193	189	179	185	
6.25%	A	198	186	191	200	196	186	192	
12.5%	A	205	192	197	208	202	192	199	
25%	A	215	206	209	219	210	204	213	
50%	A	242	230	232	251	237	229	241	
100%	A	291	280	282	309	292			

Temperature (°C)

0	1	2	3	4	5	6	7
24	21	22	23	22	20	22	
24	21	22	24	22	20	22	
24	21	22	24	23	20	22	
24	21	22	24	23	20	22	
24	21	22	25	23	21	23	
23	21	22	25	23			

INC TEMP:	25	25	25	25	25	25	25	
DATE:	7/6/18	07/07	07/08/18	07/09/18	07/10/18	07/11/18	7/12	
TIME:	1155	1020	1040	1230	1155	1340	1105	
INIT:	MW	CFS	MS	MS	MS	KK	MW	

Ceriodaphnia dubia CHRONIC REPRODUCTION ASSAY
OLD WATER QUALITIES

STUDY:30817 CLIENT: Wood Group SAMPLE: CSW-3 DILUENT: MSR

CONC	DAY	pH	DO	S/C	INC. TEMP	TIME / INITIALS
LAB	1	7.85	8.9	190	25	1125 CFS
	2	7.97	8.8	252	25	MS 1355
	3	7.83	8.1	226	25	1625 JTP
	4	7.69	8.1	222	25	1450 KK
	5	7.86	8.4	210	25	1330 KK
	6	7.90	8.3	212	25	1445 KK
	7	7.63	8.2	212	26	1710 BG
	8					
6.25%	1	7.87	9.0	194		
	2	7.94	8.8	243		
	3	7.83	8.1	224		
	4	7.69	7.9	238		
	5	7.83	8.4	219		
	6	7.88	8.4	217		
	7	7.64	8.2	218		
	8					
12.5%	1	7.90	9.0	200		
	2	7.94	8.8	240		
	3	7.81	8.2	232		
	4	7.69	7.9	235		
	5	7.80	8.4	231		
	6	7.89	8.3	222		
	7	7.67	8.1	223		
	8					
25%	1	7.92	9.0	213		
	2	7.98	8.8	240		
	3	7.80	8.1	236		
	4	7.71	7.9	253		
	5	7.79	8.4	241		
	6	7.90	8.4	234		
	7	7.68	8.1	239		
	8					
50%	1	7.95	9.0	232		
	2	8.00	8.8	256		
	3	7.83	8.1	266		
	4	7.75	7.9	263		
	5	7.82	8.4	264		
	6	7.98	8.4	261		
	7	7.70	8.1	263		
	8					
100%	1	8.07	9.0	284		
	2	8.11	8.8	2630		MS 07168
	3	7.89	8.1	323		
	4					
	5					
	6					
	7					
	8					

PREPARATION of DILUTIONS

STUDY: 30817 CLIENT: Wood Group

SPECIES: *C. dubia* TEST: chronic renewal DILUENT: MSR

Diluent: MSR	Day: 0 E_0=23.1°C Sample: E_0		Day: 1 E_0=24.6 Sample: E_0	
Concentration	Vol Eff	Final Vol	Vol Eff	Final Vol
Lab	0	200	0	200
6.25%	12.5	↓	12.5	↓
12.5%	25		25	
25%	50		50	
50%	100		100	
100%	200	↓	200	↓

	Date / Time / Init	*Selenastrum*	YCT
Day 0	7/6/18 1150 MW	A-5158	F131
Day 1	@MW 7/10 07/08/18 0915 CFS	A-5158	F131
Day 2	07/09/18 0940 MW	A-5158	F132
Day 3	07/08/18 1225 MS	A-5158	F132
Day 4	07/09/18 1105 MW @MS 7/10 1225 MS @MW 7/10	A-5158	F132
Day 5	7/10/18 1200 CFS	A-5158	F132
Day 6	@MW 7/10 07/12/18 1045 KK	A-5158	F-132
Day 7			

Diluent: MSR	Day: 2 E_0=23.9°C Sample: E_0		Day: 3 E_0=25.3°C Sample: E_0		Day: 4 @MS 07/09 E_0=25.3 24.1°C Sample: E_0	
Concentration	Vol Eff	Final Vol	Vol Eff	Final Vol	Vol Eff	Final Vol
Lab	0	200	0	200	0	200
6.25%	12.5	↓	12.5	↓	12.5	↓
12.5%	25		25		25	
25%	50		50		50	
50%	100		100		100	
100%	200	↓	200	↓	200	↓

	Lab Water ID:
Day 0	30807 W-1155
Day 1	30807 W-1155
Day 2	30807 W-1155
Day 3	30807 W-1155
Day 4	30807 W-1155
Day 5	30807, W-1155
Day 6	30807, W-1155
Day 7	

Diluent: MSR	Day: 5 E_0=25.0°C Sample: E_0		Day: 6 E_0=24.6°C Sample: E_0		Day: Sample:		Day: Sample:	
Concentration	Vol Eff	Final Vol	Vol Eff	Final Vol	Vol Eff	Final Vol	Vol Eff	Final Vol
Lab	0	200	0	200				
6.25%	12.5	↓	12.5	↓				
12.5%	25		25					
25%	50		50					
50%	100	↓	100	↓				
100%	—	—	—	—				

Ceriodaphnia dubia CHRONIC REPRODUCTION ASSAY

METER USE RECORD

STUDY: 30817	CLIENT: Wood Group

OLD WATER QUALITIES - *C. dubia*

	0	1	2	3	4	5	6	7	8
Water Quality Station #		2	2	MP03	MP03	MP03	MP03	MP03	
Initials		CFS	MS	JTP	KK	KK	KK	BL	

NEW WATER QUALITIES - *C. dubia*

	0	1	2	3	4	5	6	7	8
Water Quality Station #	2	2	2	2	2	2	2		
Initials	MW	CFS	MS	MS	MS	KK	MW		
Date	7/6/18	07/07	07/08/18	07/09/18	07/10/18	07/11/18	7/12/18	07/13/18	

Water Quality Station #1		Water Quality Station #2		COMMENTS
DO meter #		DO meter #	ML01	
DO probe #		DO probe #	96	
pH meter #		pH meter #	ML01	
pH probe #		pH probe #	158	
S/C meter #		S/C meter #	ML01	

Report No: 30817 SDG:
Project: C-Lab

Sample ID: CSW-3
Matrix: Water
Sampled: 07/06/18 1230

Parameter		Result	Quant Limit	Units	Date Prepared	Date of Analysis	INIT/Method/Reference
Aluminum, total	30817-100	0.03	0.01	mg/L	07/06/18 1400	07/07/18 0012	JLH/EPA 200.8
Cadmium, total	30817-100	ND	0.0003	mg/L	07/06/18 1400	07/07/18 0012	JLH/EPA 200.8
Calcium, total	30817-100	23.8	0.05	mg/L	07/06/18 1400	07/07/18 0012	JLH/EPA 200.8
Chromium, total	30817-100	0.23	0.001	mg/L	07/06/18 1400	07/07/18 0012	JLH/EPA 200.8
Copper, total	30817-100	0.012	0.0005	mg/L	07/06/18 1400	07/07/18 0012	JLH/EPA 200.8
Iron, total	30817-100	0.023	0.01	mg/L	07/06/18 1400	07/07/18 0012	JLH/EPA 200.8
Lead, total	30817-100	ND	0.0003	mg/L	07/06/18 1400	07/07/18 0012	JLH/EPA 200.8
Magnesium, total	30817-100	1.99	0.05	mg/L	07/06/18 1400	07/07/18 0012	JLH/EPA 200.8
Nickel, total	30817-100	0.0018	0.001	mg/L	07/06/18 1400	07/07/18 0012	JLH/EPA 200.8
Selenium, total	30817-100	ND	0.002	mg/L	07/06/18 1400	07/07/18 0012	JLH/EPA 200.8
Zinc, total	30817-100	0.0049	0.002	mg/L	07/06/18 1400	07/07/18 0012	JLH/EPA 200.8

Notes:

ND = Not Detected

30817

Ceriodaphnia dubia REPRODUCTION RECORD

	ROW	DAY	A	B	C	D	E
SOURCE MSR Bulk 08/03/18	Lab	0	+	+	+	+	+
		1	+	+	+	+	+
WATER TYPE MSR control		2	+	+	+	+	e3 mw 819118
		3	+	−	+	+	
START DATE 8/3/18		4	8	|	+	11	
		5	+	|	+	+	
DILUENT- screen		6	14	|	+	12	
		7	20	↓	+ ♂	19	
		8					
AGE: <24 Hours			42	0	0	42	
	CSW-3	0	+	+	+	+	+
		1	+	+	+	+	+
		2	+	+	+	+	e3 mw 819
		3	+	+	+	−	
		4	−	6	4−	|	
		5	|	+	|	|	
		6	|	5	|	|	
		7	↓	−	↓	↓	
		8					
			0	11	4	0	

666.7 : 1

0 : 1

Lab Water ID: 30906 W-1160	
***Selenastrum*:** A-5199	
YCT: F132	

Assay Review Checklist

DATE IN: _____ STUDY#: 30817

DATE DUE: _____ CLIENT: WOOD

_____ PROJECT: C-Lab

ASSAY: Screening Assay

Project Paperwork Check for Completeness			
	Date	Initials	Comments
Day 0	07/03/18	MS	
Day 1	07/4	KB	
Day 2	07/05	MW	
Day 3	07/06	MW	
Day 4	07/07	CFS	
Day 5	07/08/18	MS	
Day 6	07/09/18	JTP	
Day 7	07/10/18	CRS	
Day 8			

Analyst Data Review	Date	Initials	Comments
Chains of Custody Complete			
Sample Receipt Complete			
Organism Culture Sheet(s)	07/13/18	NA	
Bench Sheets Complete (dates, times, initials, etc...)	↓	BG	
Water Quality Data Complete	↓	↓	
TRC Values & Bottle Numbers	↓	↓	
Daphnid Calculations Complete	↓	↓	
Weights Reported	↓	NA	
Assay Acceptability Review	↓	BG	

Technical Report Review	Date	Initials	Comments
Statistical Analysis Complete	7/20/18	LF	
Statistical Analysis Reviewed	7/20/18	MR	
Data Acceptability Review	↓	↓	
Supporting Chemistry Report (E3)	~~10/2/18~~	—	
Draft Report NR 10/2/18	9/27/18	KAS (MR)	
QA Audit/Review Complete (E3)	10/2/18		
Final Report Reviewed	10/2/18	W/MR	
Final Report Printed - PDF	10/2/18	MR	
Executive Summary / Chems Sent			
Report E-mailed / Faxed	10/2/18	MR	
Report Logged Out / Invoice Sent	↓	↑	
Report Scanned to Archive	↓	↓	

Assay Review Checklist

DATE IN: _____ **STUDY#:** 30817

DATE DUE: 07/06/18 **CLIENT:** Wood Group

PROJECT: CSW-3 C-Lab

ASSAY: CD7DCR

Project Paperwork Check for Completeness			
	Date	**Initials**	**Comments**
Day 0	7/6/18	MW	
Day 1	07/07	CFS	
Day 2	07/08/18	MS	
Day 3	07/09/18	JTP	Need to fill in New wq meter record day 3 ✓
Day 4	07/10/18	KK	
Day 5	07/11/18	KK	
Day 6	07/12/18	KK	
Day 7	07/13/18	BG	
Day 8			

Analyst Data Review	**Date**	**Initials**	**Comments**
Chains of Custody Complete			
Sample Receipt Complete			
Organism Culture Sheet(s)			
Bench Sheets Complete (dates, times, initials, etc...)			
Water Quality Data Complete			
TRC Values & Bottle Numbers			
Daphnid Calculations Complete			
Weights Reported			
Assay Acceptability Review			

Technical Report Review	**Date**	**Initials**	**Comments**
Statistical Analysis Complete	7/20/18	LF	
Statistical Analysis Reviewed (E3)	7/20/18	NR	
Data Acceptability Review	↓	↓	
Supporting Chemistry Report	10/2/18	LF	
Draft Report	9/27/18	KAS (MD)	
QA Audit/Review Complete			
Final Report Reviewed	10/2/18	CJ/MR	
Final Report Printed - PDF	10/2/18	NR	
Executive Summary / Chems Sent			
Report E-mailed / Faxed	10/2/18	MR	
Report Logged Out / Invoice Sent	↓	↓	
Report Scanned to Archive	↓	↓	

TOXICOLOGICAL EVALUATION
OF SURFACE WATER SAMPLES

Project Site: C-Lab, Groton, Massachusetts
Toxicity Reduction Evaluation

Wood Project Number: 3617187 421

***Ceriodaphnia dubia* 7 day Survival and Reproduction Evaluation**

Prepared For:

Wood, PLC.
271 Mill Road
Chelmsford, Massachusetts 01824

Prepared By:

EnviroSystems, Incorporated
One Lafayette Road
Hampton, New Hampshire 03842

September 2018

Study Specific Reference Number: 31149

TABLE OF CONTENTS

1.0 INTRODUCTION 3

2.0 MATERIALS AND METHODS 3

2.1 General Methods 3
2.2 Test Species 3
2.3 Test Samples and Laboratory Control Water 3
2.4 *Ceriodaphnia dubia 7* Day Survival and Reproduction Evaluation 3
2.5 Toxicity Reduction Procedure 4
2.6 Data Analysis 4
2.7 Quality Control 4

3.0 RESULTS AND DISCUSSION 4

3.1 Toxicity Reduction Evaluation Assay 4
3.1.1 Survival 4
3.1.2 Reproduction 5
3.2 Protocol Deviations 5
3.3 Summary 5

4.0 REFERENCES 5

LIST OF TABLES

Table 1. Summary of Sample Collection and Receipt Information 6
Table 2. Summary of Reference Toxicant Data 6
Table 3. Summary of Laboratory Control and Assay Acceptability 6
Table 4. TRE Assay Data Summary 7
Table 5. Water Quality Summary 7
Table 6. Trace Metals Summary, Pre and Post Treatment 8

APPENDIX A: RAW DATA & STATISTICAL SUPPORT 9

TOXICOLOGICAL EVALUATION OF SURFACE WATER SAMPLES

Project Site: C-Lab, Groton, Massachusetts
Toxicity Reduction Evaluation

Ceriodaphnia dubia 7 day Survival and Reproduction Evaluation

1.0 INTRODUCTION

This report presents the results of a project specific Toxicity Reduction Evaluation (TRE) conducted on a surface water sample collected in support of the ecological risk assessment at the C-Lab Project Site, Groton, Massachusetts. Samples were provided by Wood, PLC, Chelmsford, Massachusetts. Testing was based on programs and protocols developed by the US EPA (1999, 2002), and involved conducting a project specific chronic exposure TRE designed to reduce/mitigate the toxicity of hexavalent chromium using the freshwater daphnid, *Ceriodaphnia dubia*. Testing was performed at EnviroSystems, Incorporated (ESI), Hampton, New Hampshire in accordance with the provisions of TNI Standards (2009).

TRE expose groups of organisms to samples after specified treatments have been applied to assess the effectiveness of the treatment approaches on selected endpoints. Analysis of variance techniques are used to determine the relative toxicity of the samples as compared to the laboratory control and/or untreated sample. Endpoints for this study were based on survival and reproduction.

2.0 MATERIALS AND METHODS

2.1 General Methods

Toxicological and analytical protocols used in this program follow procedures primarily designed to provide standard approaches for the evaluation of toxicological effects of discharges on aquatic organisms as outlined in *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (US EPA 2002). Toxicity Reduction Evaluation protocol were based on *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants.* EPA/833B-99/002 (EPA 1999). See Section 4.0 for a list of references.

2.2 Test Species

C. dubia were maintained in laboratory water at 25±1°C with a photoperiod of 16:8 hours light:dark. Cultures are fed daily with a yeast/trout chow/Cerophyll or alfalfa leaves (YTC) mixture supplemented with *Pseudokirchneriella subcapitata* (algae) (US EPA 2002). Adults on a brood board were isolated 24 hours prior to test start and allowed to reproduce for 8 hours.

2.3 Test Samples and Laboratory Control Water

Surface water samples collected for the project were received at ESI under chain of custody in 1 gallon cubitainers. Upon arrival at the laboratory, all samples received an internal sample control number and were logged into the project sample control system. Samples were placed in a secure refrigerator and stored at a temperature of 0-6°C as per 40 CFR §136.3. Sample identification, collection and receipt information is summarized in Table 1.

Laboratory water was synthetic reconstituted water prepared at ESI according to protocol (US EPA 2002). This water has been used to successfully culture freshwater organisms since 1992.

2.4 *Ceriodaphnia dubia 7* Day Survival and Reproduction Evaluation

The TRE followed chronic exposure bioassay protocol (US EPA 2002), which called for the daily renewal of test solutions. Dissolved oxygen, pH, specific conductance, and temperature were measured in each new test solution.

Test chambers for the daphnid assay were 30 mL portion cups containing approximately 20 mL of test solution in each of 10 replicates with 1 organism/replicate. Replicates were not randomized during testing;

rather, organisms were added at test initiation by blocking by known parentage. Survival and juvenile production were monitored daily. Daphnids were fed 200 µL of a mixture of YTC and algae after daily renewals.

2.5 Toxicity Reduction Procedure

The procedure for chrome reduction in the CSW-3 evaluation was based on, *A Comparative Study of two chelating ion-exchange resins for the removal of chromium (III) from aqueous solution.* (Gode ,Fethiye and Pehlivan, Erol. 2003). The source documented chromium reduction using Lewatit TP207 ion exchange resin for chrome reduction. The source document specified running the TRE procedure at a target pH of 4.5 SU. Initial sample pH levels, 8.08 and 8.4 for the MHR laboratory control water and CSW-3 water, respectively were adjusted to pH levels of 4.45 and 4.48 with a 1% solution of HCl. The pH adjusted waters were dosed with Lewatit TP207 ion exchange resin at a rate of 0.34g/100mL in a 2.5 L high density polyethylene (HDPE) container. The HDPE containers were placed on an orbital shaker for 2 hours at 180rpm. After mixing, the samples were then allowed to settle and filtered with a 0.45um filter. After filtration pH levels were adjusted to 7.88 for the treated CSW3 and 7.61 for the treated MHR. Aliquots of both the untreated and treated waters were collected and acid preserved to pH <2 with HNO_3 for subsequent analysis.

2.6 Data Analysis

Study data were analyzed using CETIS™ v1.9.3.0 (Comprehensive Environmental Toxicity Information System) software to determine significant differences between the site surface water and the laboratory control water. Data sets were evaluated to determine normality of distribution and homogeneity of sample variance. Data sets were subsequently evaluated using the appropriate parametric or non-parametric Analysis of Variance (ANOVA) statistics. Selection of specific statistical methods was based on US EPA Decision Toxicity Reduction Evaluatione guidelines. As appropriate, data sets were transformed prior to analysis. Statistical comparisons were made for the following endpoints; survival on days 2 and 7, and reproduction on day 7. Pair-wise comparisons were made using the appropriate statistical evaluation. Statistical difference was evaluated at $\alpha = 0.05$.

2.7 Quality Control

As part of the laboratory quality control program, reference toxicant evaluations are completed on a regular basis for each test species. These results, presented in Table 2, provide regular laboratory performance evaluation through the comparison of historic data sets.

3.0 RESULTS AND DISCUSSION

3.1 Toxicity Reduction Evaluation

Table 3 provides a summary of assay acceptability criteria and laboratory control achievement. Table 4 provides a summary of survival and reproduction data for the treated and untreated samples plus results of statistical comparisons. Table 5 present the results of water quality data generated during the assay. Table 6 provides a summary of trace metals levels in the untreated and treated water samples.

3.1.1 Survival

At the end of the 7 day exposure period, mean survival in laboratory control water was 90% with a coefficient of variation (CV) of 35.1%. Daphnids in the laboratory control water had a mean reproduction of 31.9 juveniles/female at the end of the 8 day exposure period, with a CV of 52.9%. Three brood of juveniles were produced by 80% of the daphnids. Minimum test acceptability criteria require 80% control survival, mean production of 15 juveniles/female, and production of 3 broods by at least 60% of control females (US EPA 2002). Achievement of these criteria indicates that healthy test organisms were used.

Review of survival data after 24 hours of exposure documented 90 and 100% survival in the untreated and treated CSW-3 site surface water samples, respectively. Survival for the 24 hour interval in the treated laboratory control water was 80%. After 48 hours of exposure, survival in the untreated and treated CSW-3 site water was 80 and 100% survival, respectively. Survival in the treated laboratory control water was reduced to 20% demonstrating a high level of acute toxicity associated with the treatment process. Survival data collected at the end of the assay (day 8) showed survival levels of 70 and 30% in the untreated and

treated CSW-3 site water, respectively and no survival (0%) in the treated laboratory control water.

3.1.2 Reproduction Success

Reproduction results at the end of the assay (day 8) were similar to survival results. The untreated and treated CSW-3 water samples achieved mean reproduction rates of 7.0 and 4.7 juveniles/adult, respectively. There was no reproduction (0%) in the treated laboratory control water.

3.2 Protocol Deviations

Review of data generated during the 7-day exposure period documented no protocol deviations.

3.3 Summary

The data generated by this toxicity reduction evaluation demonstrated that the treatment process itself was highly toxic, resulting in complete mortality and no juvenile reproduction in the treated moderately hard laboratory control water. Survival of daphnids in the untreated CSW-3 sample was not statistically reduced as compared to the moderately hard laboratory control water. Survival in the treated CSW-3 sample was statistically reduced as compared to the untreated laboratory control. The impact of the treatment process was slightly mitigated by the CSW-3 sample. The treated sample exhibited limited survival and reproduction at the end of the exposure period.

Review of the chemical analysis date provided in Table 6 shows that the treatment process effectively removed calcium and magnesium from both the CSW-3 and moderately hard laboratory control water. The reduction in calcium and magnesium resulted in total hardness levels for the CSW-3 and MHR laboratory control waters dropping from 70.4 and 97.1 mg/L, respectively, to <0.33 mg/L for both samples. Loss of these two compounds from the waters resulted in a significant ionic imbalance in the waters and most likely caused of the observed daphnid mortality. Additional review of the untreated and treated water chemistry in Table 6 shows the treatment process appeared to have reduced levels of copper and iron in the CSW-3 water. There was no apparent reduction in total chromium levels between the untreated and treated CW-3 samples. The levels of other trace metals in the MHR laboratory control water were at or below method reporting limits, therefore the impact of the treatment process on these other metals could not be determined.

It was noted that survival after the 8 day exposure period in both the untreated and treated CSW-3 samples was greater than that observed during the initial screening and definitive rounds of testing (ESI study 30817), including the testing evaluating the effects of sample aging on mortality and reproduction. Additionally, reproduction in the untreated CSW-3 sample was higher (7.0 versus 3.75 juveniles/adult) in the untreated CSW-3 used in the TRE as compared to the CSW-3 sample used in the “Aged” sample evaluation. This would suggest that the toxicity associated with the CSW-3 sample continues to lessen with extended time possibly demonstrating that chelation or other process was reducing the bioavailability of toxicants in the water sample.

4.0 REFERENCES

40 CFR §136.3. *Code of Federal Regulations* (CFR), Protection of the Environment (Title 40), Guidelines Establishing Test Procedures for the Analysis of Pollutants (Part 136), Identification of Test Procedures (sub-part 3), Table II-Required Containers, Preservation Techniques, and Holding Times.

Gode, Fethiye and Pehlivan, Erol. 2003. *A Comparative Study of two chelating ion-exchange resins for the removal of chromium (III) from aqueous solution.* Journal of Hazardous Materials, July 2003.

The NELAC Institute (TNI). 2009. *Environmental Laboratory Sector, Volume 1: Management and Technical Requirements for Laboratories Performing Environmental Analysis (TNI Standard)*. EL-V1-2009.

US EPA. 1999.US EPA. 1999. *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants.* EPA/833B-99/002.

US EPA. 2002. *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*. Fourth Edition. EPA-821-R-02-013.

US EPA Region I. 2013. *Freshwater Chronic Toxicity Test Procedure and Protocol - US EPA Region I*. US EPA Region I Office, Boston, Massachusetts. March 2013.

Table 1. Summary of Sample Collection and Receipt Information. *C. dubia* **7 Day Survival and Reproduction Toxicity Test. C-Lab Toxicity Reduction Evaluation, Groton, Massachusetts. September 2018.**

ESI Code	Field ID	Sample Collected		Sample Received	
		Date	Time	Date	Time
30816-007	CSW-3	07/02/18	1200	07/03/18	0800

Table 2. Summary of Reference Toxicant Data. *C. dubia* **7 Day Survival and Reproduction Toxicity Test. C-Lab Toxicity Reduction Evaluation, Groton, Massachusetts. September 2018.**

Date	Endpoint		Value	Historic Mean/ Central Tendency	Acceptable Range	Reference Toxicant
C. dubia						
07/05/18	Survival	LC-50	19.0	23.4	3.8 - 43.0	SDS (mg/L)
07/03/18	Survival	C-NOEC	30.0	60.0	30.0 - 120.0	Copper (µg/L)
07/03/18	Reproduction	C-NOEC	15.0	30.0	15.0 - 60.0	Copper (µg/L)
07/03/18	Reproduction	MSDp	30.4	30.1	13.0 - 47.1	Copper (µg/L)

Means and Acceptable Ranges based on the most recent 20 reference toxicant assays.

Table 3. Summary of Laboratory Control and Assay Acceptability. ***C. dubia*** **7 Day Survival and Reproduction Toxicity Test. C-Lab Toxicity Reduction Evaluation, Groton, Massachusetts. September 2018.**

Endpoint / Measurement	Protocol Criteria	Unit	Screening Assay	
Mean Survival	Laboratory Control ≥ 80%	%	90%	
		Protocol Met	Yes	
Reproduction	Laboratory Control ≥ 15 juveniles/female	juv/female	31.9	
		Protocol Met	Yes	
Brood Production	Lab Control ≥ 60%	%	80%	
		Protocol Met	Yes	
MSDp	Laboratory Control variability 13-47%	%	30.8%	Based on Lab control vs Treated CSW-3 Assay
		Protocol Met	Yes	
Test Incubator Temperature	Mean: 25°±1°C	Daily	25	
	Minimum: 24°C	Daily	25	
	Maximum: 26°C	Daily	25	
		Protocol Met	Yes	

Table 4. Data Summary. *C. dubia* **7 Day Survival and Reproduction Toxicity Test. C-Lab Toxicity Reduction Evaluation, Groton, Massachusetts. September 2018.**

Field ID	ESI Code	Mean Percent Survival Day 01	Day 02	Day 08	Mean Reproduction (Juv/Female)	% Females Producing 3 Broods
LAB (MHR)	31149-000	100%	100%	90%	31.9	80%
CSW-3	31149-001	90%	80%	70%	7.0	20%
Treated CSW-3	31149-002	100%	100%	30%	4.7	10%
Treated MHR	31149-003	80%	20%	0%	0.0	0%

		Statistically Significant Difference in Endpoint as Compared to Lab Control			
		Survival		Day 8 Reproduction	
Field ID	ESI Code	Day 02	Day 08	Lab vs Treatment	CSW-3 vs Treatment
CSW-3	31149-001	No	No	Yes	-
Treated CSW-3	31149-002	No	No	Yes	No
Treated MHR	31149-003	Yes	Yes	Yes	Yes

Table 5. Water Quality Summary. ***Ceriodaphnia dubia*** **7 Day Survival and Reproduction Toxicity Test. C-Lab Toxicity Reduction Evaluation, Groton, Massachusetts. September 2018.**

New Water Quality Values

		Dissolved Oxygen (mg/L)		pH (SU)		Specific Conductivity (µmhos/cm)	
Field ID	ESI Code	Day 0	Last [a]	Day 0	Last [a]	Day 0	Last [a]
LAB (MHR)	31149-000	8.8	8.6	8.05	8.11	329	329
CSW-3	31149-001	9.4	8.7	7.81	7.88	294	311
Treated CSW-3	31149-002	8.3	8.9	7.88	8.00	483	511
Treated MHR	31149-003	8.2	8.7	7.61	7.54	640	689

Old Water Quality Values

		Dissolved Oxygen (mg/L)		pH (SU)		Specific Conductivity (µmhos/cm)	
Field ID		Day 1	Last [a]	Day 1	Last [a]	Day 1	Last [a]
LAB (MHR)	31149-000	7.9	8.8	8.33	8.21	357	375
CSW-3	31149-001	7.8	8.7	8.41	8.28	346	329
Treated CSW-3	31149-002	8.1	8.8	8.58	8.37	550	525
Treated MHR	31149-003	8.2	8.9	8.63	8.37	708	713

COMMENTS:
[a] Measurement taken from the last available reading for each sample.
Additional water quality and analytical support data are provided in Appendix A.

Table 6. Trace Metals Summary, Pre and Post Treatment. *Ceriodaphnia dubia* 7 Day Survival and Reproduction Toxicity Test. C-Lab Toxicity Reduction Evaluation, Groton, Massachusetts. September 2018.

		CSW-3 Site Water		MHR Lab Control Water	
PARAMETER	UNITS	Untreated	Treated	Untreated	Treated
Aluminum, total	mg/L	0.043	<0.02	<0.02	<0.02
Cadmium, total	mg/L	<0.0002	<0.0003	<0.0003	<0.0003
Chromium	mg/L	0.24	0.23	<0.001	<0.001
Copper, total	mg/L	0.01	0.0054	0.0009	0.0008
Iron, total	mg/L	0.05	<0.01	<0.01	<0.01
Lead, total	mg/L	<0.0002	0.0003	<0.0003	<0.0003
Nickel, total	mg/L	0.0016	<0.001	<0.001	<0.001
Selenium, total	mg/L	<0.002	<0.002	0.0031	0.0028
Zinc, total	mg/L	0.0075	0.0068	0.0026	0.012
Calcium, total	mg/L	24.8	0.05	17.6	<0.05
Magnesium, total	mg/L	2.06	<0.05	12.9	<0.05
Hardness, total	mg/L	70.4	<0.33	97.1	<0.33

COMMENTS:
Additional water quality and analytical support data are provided in Appendix A.

APPENDIX A

RAW DATA AND STATISTICAL SUPPORT

Contents	Number of Pages
Chains of Custody and Sample Receipt Record	2
Toxicity Reduction Evaluation Assay	
C. dubia Chronic Survival and Reproduction Bench Sheets	1
C. dubia Survival and Reproduction Statistics	16
C. dubia - Blocking By Parentage Tracking Sheet	1
Daily Water Quality Data Sheets	2
Sample Use Record	1
Record of Meters Used for Water Quality Measurements	1
Analytical Chemistry Reports - Pre and Post Treatment	4
Assay Review Checklist	1
Total Appendix Pages	29

ESI
EnviroSystems, Inc.
1 Lafayette Road
P.O. Box 778
Hampton, N.H. 03843
Voice: 603-926-3345
FAX: 603-926-3521

ESI Job No: 30817 - CdTDC
~~30816~~ - Sample Receipt

CHAIN OF CUSTODY DOCUMENTATION

Client: Wood. E+I	Contact: Tony Rodolakis	Project Name: C-lab	Page 1 of 1
Report to: Tony Rodolakis	Address: 271 Mill Rd.	Project Number: 3617187421	
Invoice to: Kerry Tull	Address: Chelmsford, MA 01824	Project Manager: Kerry Tull	
Voice: 3617187421 920001.920001 ~~530001~~	Fax:	email: tony.rodolakis@wood plc.com	P.O. No: Quote No:

Protocol: RCRA SDWA NPDES USCOE Other

Lab Number (assigned by lab)	Your Field ID: (must agree with container)	Date Sampled	Time Sampled	Sampled By	Grab or composit (G/C)	Container Size (ml.)	Container Type (P/G/T)	Field Preservation	Matrix S=Solid W=Water	Filter N=Not needed F=Done in field L=Lab to do	Analyses Requested\ Special Instructions:
-001	CSD-5	7/2/18	1000	MAM	C	2x 1gal	P	NA	SED	N	Hyalella tox - hold
-002	CSD-3A	7/2/18	1130	MAM	C	2x1gal	P	NA	SED	N	Hyalella tox - hold
-003	CSD-3	7/2/18	1230	MAM	C	1x1gal	P	NA	SED	N	Hyalella tox - hold
-004	CSD-BKG001	7/2/18	1420	MAM	C	2x1gal	P	NA	SED	N	Hyalella tox - hold
-005	CSW-5	7/2/18	915	MAM	G	1x1gal	P	NA	W	N	Ceriodaphnia dubia (survival + reproduction)
-006	CSW-3A	7/2/18	1100	MAM	G	1x1gal	P	NA	W	N	Ceriodaphnia dubia (survival + reproduction)
-007	CSW-3	7/2/18	1200	MAM	G	2x1gal	P	NA	W	N	Ceriodaphnia dubia (survival + reproduction) and TIE test
-008	CSW-BKG001	7/2/18	1400	MAM	G	1x1gal	P	NA	W	N	Ceriodaphnia dubia (survival + reproduction)

Relinquished By: Mark Maggini Date: 7/3/18 Time: 0800
Received By: M GREENE Date: 7/3/18 Time: 0800

Relinquished By: Date: Time:
Received at Lab By: Date: Time:

Comments: 3.8°C

Sample Delivery Group No: Page of

SAMPLE RECEIPT AND CONDITION DOCUMENTATION

STUDY NO:	30816		
SDG No:			
Project:	C-Lab		
Delivered via:	ESI		
Date and Time Received:	07/03/18 0800	Date and TIme Logged into Lab:	07/05/18 1325
Received By:	MG	Logged into Lab by:	JTP
Air bill / Way bill:	No	Air bill included in folder if received?	N/A
Cooler on ice/packs:	Yes	Custody Seals present?	N/A
Cooler Blank Temp (C) at arrival:	3.8C	Custody Seals intact?	N/A
Number of COC Pages:	1		
COC Serial Number(s):	N/A		
COC Complete:	Yes	Does the info on the COC match the samples?	Yes
Sampled Date:	Yes	Were samples received within holding time?	Yes
Field ID complete:	Yes	Were all samples properly labeled?	Yes
Sampled Time:	Yes	Were proper sample containers used?	Yes
Analysis request:	Yes	Were samples received intact? (none broken or leaking)	Yes
COC Signed and dated:	Yes	Were sample volumes sufficient for requested analysis?	Yes
Were all samples received?	Yes	Were VOC vials free of headspace?	N/A
Client notification/authorization:	Not required	pH Test strip ID number:	N/A

Field ID	Lab ID	Mx	Analysis Requested	Bottle	Req'd Pres'n	Verified Pres'n
CSD-5	30816-001	S	Hold: Ha28Day	2x1gal P	4C	Yes
CSD-3A	30816-002	S	Hold: Ha28Day	2x1gal P	4C	Yes
CSD-3	30816-003	S	Hold: Ha28Day	1x1gal P	4C	Yes
CSD-BKG001	30816-004	S	Hold: Ha28Day	2x1gal P	4C	Yes
CSW-5	30816-005	W	Cd7DCR	1x1gal Cubit	4C	Yes
CSW-3A	30816-006	W	Cd7DCR	1x1gal Cubit	4C	Yes
CSW-3	30816-007	W	Cd7DCR, TIE	2x1gal Cubit	4C	Yes
CSW-BKG001	30816-008	W	Cd7DCR	1x1gal Cubit	4C	Yes

Notes and qualifications:

Ceriodaphnia dubia CHRONIC REPRODUCTION ASSAY

STUDY #: 31149

CLIENT: WOOD PLC

SAMPLE: CSW-3

DILUENT: NA

Cerio Data source: MSR ☒ MHR ☒ collected: previous pm ☐ test day am ☒

DAY 0 9/20/18 TIME: 1430 FED: MW

DAY 1 9/21/18 TIME: 1540 FED: MW

DAY 2 9/22/18 TIME: 1200 FED: MW

DAY 3 09/23/18 TIME: 1440 FED: MS

DAY 4 09/24/18 TIME: 1710 FED: GRS

DAY 5 09/25/18 TIME: 1505 FED: LAG

DAY 6 09/26/18 TIME: 1445 FED: LAG

DAY 7 9/27/18 TIME: 0940 FED: MW

DAY 8 09/28 TIME: 1240 FED: CFS

LEGEND:

+ = LIVE

- = DEAD

♂ = MALE

M = MISSING

Calculations: Initials: GRS Date: 10/01/18

CONC.	DAY	A	B	C	D	E	F	G	H	I	J	SUM	SURV.	
LAB -000	0	+	+	+	+	+	+	+	+	+	+	0	10	
	1	+	+	+	+	+	+	+	+	+	+	0	10	
	2	+	+	+	+	+	+	+	+	+	+	0	10	
	3	+	+	+	+	+	+	+	+	+	+	0	10	
	4	6	6	6	4	5	5	5	+	7	+	44	10	
	5	+	+	+	+	+	+	14	+	+	+	14	10	80
	6	15	16	14	12	11	15	+	+	12	1	~~96~~ 86	10	
	7	23	+	+	+	+	+	10	+	+	+	33	10	
	8	+	22	19	23	21	22	+	-	24	1	132	9	
	TOTAL	44	44	39	39	37	42	29	0	43	2	319	9	
CSW-3 -001	0	+	+	+	+	+	+	+	+	+	+	0	10	
	1	-	+	+	+	+	+	+	+	+	+	0	9	
	2	|	+	+	+	+	+	+	-	+	+	0	8	
	3	|	+	+	+	+	+	+	|	+	+	0	8	
	4	|	1	+	+	+	3	|	+	+	4	8	70	
	5	|	+	+	+	2	2	+	|	+	1	5	8	
	6	|	3	3	3	3	5	-	|	+	5	22	7	
	7	|	+	+	+	+	+	|	|	+	+	0	7	
	8	↓	8	12	6	4	7	↓	↓	+	2	39	7	
	TOTAL	0	11	16	9	9	14	3	0	0	8	70	7	
TREATED CSW-3 -002	0	+	+	+	+	+	+	+	+	+	+	0	10	
	1	+	+	+	+	+	+	+	+	+	+	0	10	
	2	+	+	+	+	+	+	+	+	+	+	0	10	
	3	+	-	+	+	+	+	-	+	+	-	0	7	
	4	1	|	+	3	-	+	|	+	4	|	87 (82 09/24)	6	10
	5	-	|	+	+	|	+	|	3	+	|	3	5	
	6	|	|	4	3	|	5	|	+	8	|	20	5	
	7	|	|	+	-	|	+	|	1	+	|	7	4	
	8	↓	↓	2	↓	↓	3-	↓	+	4	↓	9	3	
	TOTAL	1	0	6	6	0	8	0	10	16	0	47	3	
TREATED CONTROL -003	0	+	+	+	+	+	+	+	+	+	+	0	10	
	1	+	+	+	+	+	+	+	+	-	-	0	8	
	2	+	+	-	-	-	-	-	-	|	|	0	2	
	3	-	-	|	|	|	|	|	|	|	|	0	0	
	4	|	|	|	|	|	|	|	|	|	|	0	0	0
	5	|	|	|	|	|	|	|	|	|	|	0	0	
	6	|	|	|	|	|	|	|	|	|	|	0	0	
	7	|	|	|	|	|	|	|	|	|	|	0	0	
	8	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	0	0	
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	

CETIS Summary Report

Ceriodaphnia 7-d Survival and Reproduction Test — **EnviroSystems, Inc.**

Batch ID:	06-0701-1979	**Test Type:**	Reproduction-Survival (6-8d)	**Analyst:**	Kirk Cram
Start Date:	20 Sep-18 14:30	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Not Applicable
Ending Date:	28 Sep-18 12:40	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Duration:	7d 22h	**Source:**	In-House Culture	**Age:**	

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
31149-000	12-9413-3973	20 Sep-18 14:30	20 Sep-18 14:30	n/a	Wood E+I	Toxicity Identification Ev
31149-001	05-7214-2386	02 Jul-18 12:00	03 Jul-18 08:00	80d 2h		
31149-002	04-5832-2135	20 Sep-18 12:30	20 Sep-18 12:30	120m		
31149-003	19-3345-1968	20 Sep-18 12:00	20 Sep-18 12:00	2h		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
31149-000	Laboratory Control Water	C-Lab	Laboratory Control	
31149-001	Surface Water	C-Lab	CSW-3; 30816-007	
31149-002	Surface Water	C-Lab	Treated CSW-3	
31149-003	Laboratory Control Water	C-Lab	Treated Laboratory Control	

SIngle Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
11-8876-0633	2d Proportion Survived	Fisher Exact Test	0.2368	31149-001 passed 2d proportion survived
10-2688-3010	2d Proportion Survived	Fisher Exact Test	1.0000	31149-002 passed 2d proportion survived
12-2815-9996	2d Proportion Survived	Fisher Exact Test	1.0000	31149-002 passed 2d proportion survived
18-6289-9366	2d Proportion Survived	Fisher Exact Test	3.6E-04	31149-003 failed 2d proportion survived
11-8871-7012	8d Proportion Survived	Fisher Exact Test	0.2910	31149-001 passed 8d proportion survived
05-9427-5891	8d Proportion Survived	Fisher Exact Test	0.0099	31149-002 failed 8d proportion survived
07-1696-1554	8d Proportion Survived	Fisher Exact Test	0.0894	31149-002 passed 8d proportion survived
08-8394-1742	8d Proportion Survived	Fisher Exact Test	6.0E-05	31149-003 failed 8d proportion survived
03-7666-6913	8d Reproduction	Wilcoxon Rank Sum Two-Sample Test	0.0036	31149-001 failed 8d reproduction
16-8354-7735	8d Reproduction	Equal Variance t Two-Sample Test	0.1905	31149-002 passed 8d reproduction
05-4315-2722	8d Reproduction	Wilcoxon Rank Sum Two-Sample Test	0.0017	31149-002 failed 8d reproduction
19-5912-4285	8d Reproduction	Wilcoxon Rank Sum Two-Sample Test	6.0E-05	31149-003 failed 8d reproduction

2d Proportion Survived Summary

Sample	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
31149-000	MH	10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
31149-001		10	0.8000	0.4984	1.0000	0.0000	1.0000	0.1333	0.4216	52.70%	20.00%
31149-002		10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
31149-003		10	0.2000	0.0000	0.5016	0.0000	1.0000	0.1333	0.4216	210.82%	80.00%

8d Proportion Survived Summary

Sample	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
31149-000	MH	10	0.9000	0.6738	1.0000	0.0000	1.0000	0.1000	0.3162	35.14%	0.00%
31149-001		10	0.7000	0.3544	1.0000	0.0000	1.0000	0.1528	0.4830	69.01%	22.22%
31149-002		10	0.3000	0.0000	0.6456	0.0000	1.0000	0.1528	0.4830	161.02%	66.67%
31149-003		10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		100.00%

8d Reproduction Summary

Sample	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
31149-000	MH	10	31.9	19.82	43.98	0	44	5.338	16.88	52.92%	0.00%
31149-001		10	7	2.748	11.25	0	16	1.88	5.944	84.92%	78.06%
31149-002		10	4.7	0.7666	8.633	0	16	1.739	5.498	116.99%	85.27%
31149-003		10	0	0	0	0	0	0	0		100.00%

Ceriodaphnia 7-d Survival and Reproduction Test — **EnviroSystems, Inc.**

2d Proportion Survived Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
31149-000	MH	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
31149-001		0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000
31149-002		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
31149-003		1.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

8d Proportion Survived Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
31149-000	MH	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000
31149-001		0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	1.0000	1.0000
31149-002		0.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000	0.0000
31149-003		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

8d Reproduction Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
31149-000	MH	44	44	39	39	37	42	29	0	43	2
31149-001		0	11	16	9	9	14	3	0	0	8
31149-002		1	0	6	6	0	8	0	10	16	0
31149-003		0	0	0	0	0	0	0	0	0	0

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	11-8876-0633	**Endpoint:**	2d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	03 Oct-18 14:23	**Analysis:**	Single 2x2 Contingency Table	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
31149-000	12-9413-3973	20 Sep-18 14:30	20 Sep-18 14:30	n/a	Wood E+I	Toxicity Identification Ev
31149-001	05-7214-2386	02 Jul-18 12:00	03 Jul-18 08:00	80d 2h		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
31149-000	Laboratory Control Water	C-Lab	Laboratory Control	
31149-001	Surface Water	C-Lab	CSW-3; 30816-007	

Fisher Exact Test

Sample I	vs	Sample II	Test Stat	P-Type	P-Value	Decision(α:5%)
Moderately Hard Lab		31149-001	0.2368	Exact	0.2368	Non-Significant Effect

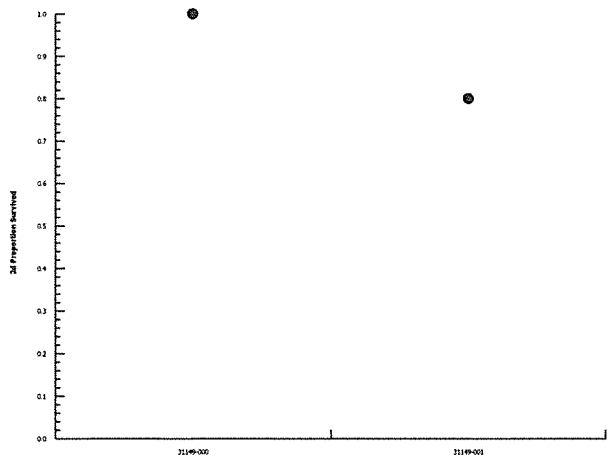
Data Summary

Sample	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
31149-000	MH	10	0	10	1	0	0.0%
31149-001		8	2	10	0.8	0.2	20.0%

2d Proportion Survived Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
31149-000	MH	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
31149-001		0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000

Graphics



Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	12-2815-9996	**Endpoint:**	2d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	03 Oct-18 14:23	**Analysis:**	Single 2x2 Contingency Table	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
31149-000	12-9413-3973	20 Sep-18 14:30	20 Sep-18 14:30	n/a	Wood E+I	Toxicity Identification Ev
31149-002	04-5832-2135	20 Sep-18 12:30	20 Sep-18 12:30	120m		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
31149-000	Laboratory Control Water	C-Lab	Laboratory Control	
31149-002	Surface Water	C-Lab	Treated CSW-3	

Fisher Exact Test

Sample I	vs	Sample II	Test Stat	P-Type	P-Value	Decision(α:5%)
Moderately Hard Lab		31149-002	1.0000	Exact	1.0000	Non-Significant Effect

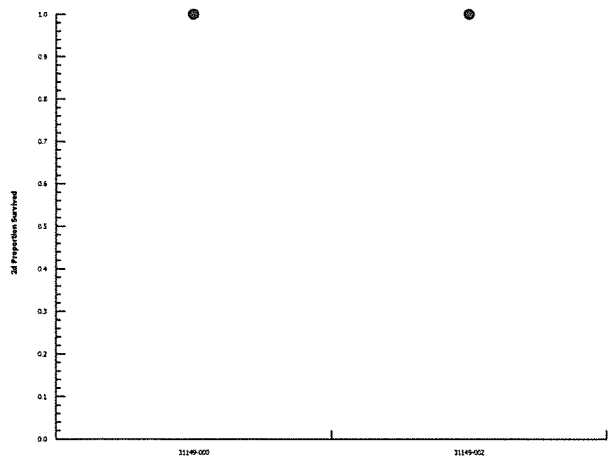
Data Summary

Sample	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
31149-000	MH	10	0	10	1	0	0.0%
31149-002		10	0	10	1	0	0.0%

2d Proportion Survived Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
31149-000	MH	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
31149-002		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Graphics



Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	18-6289-9366	**Endpoint:**	2d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	03 Oct-18 14:23	**Analysis:**	Single 2x2 Contingency Table	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
31149-000	12-9413-3973	20 Sep-18 14:30	20 Sep-18 14:30	n/a	Wood E+I	Toxicity Identification Ev
31149-003	19-3345-1968	20 Sep-18 12:00	20 Sep-18 12:00	2h		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
31149-000	Laboratory Control Water	C-Lab	Laboratory Control	
31149-003	Laboratory Control Water	C-Lab	Treated Laboratory Control	

Fisher Exact Test

Sample I	vs	Sample II	Test Stat	P-Type	P-Value	Decision(α:5%)
Moderately Hard Lab		31149-003*	0.0004	Exact	3.6E-04	Significant Effect

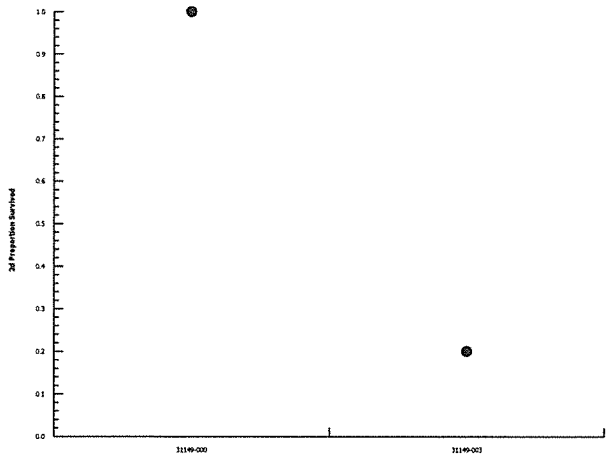
Data Summary

Sample	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
31149-000	MH	10	0	10	1	0	0.0%
31149-003		2	8	10	0.2	0.8	80.0%

2d Proportion Survived Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
31149-000	MH	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
31149-003		1.0000	1.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Graphics



Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	10-2688-3010	**Endpoint:**	2d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	03 Oct-18 14:25	**Analysis:**	Single 2x2 Contingency Table	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
31149-001	05-7214-2386	02 Jul-18 12:00	03 Jul-18 08:00	80d 2h	Wood E+I	Toxicity Identification Ev
31149-002	04-5832-2135	20 Sep-18 12:30	20 Sep-18 12:30	120m		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
31149-001	Surface Water	C-Lab	CSW-3; 30816-007	
31149-002	Surface Water	C-Lab	Treated CSW-3	

Fisher Exact Test

Sample I	vs	Sample II	Test Stat	P-Type	P-Value	Decision(α:5%)
31149-001		31149-002	1.0000	Exact	1.0000	Non-Significant Effect

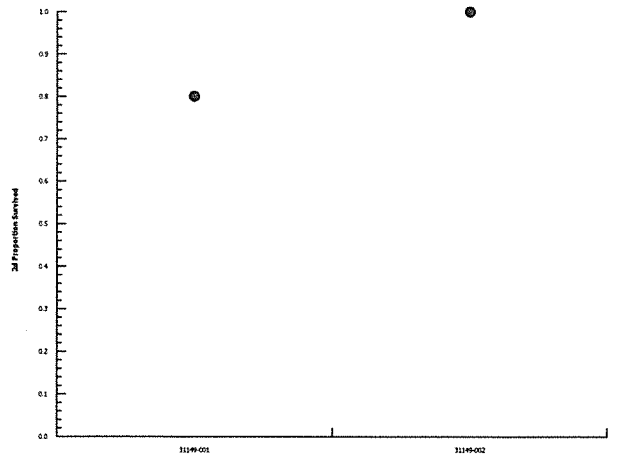
Data Summary

Sample	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
31149-001		8	2	10	0.8	0.2	0.0%
31149-002		10	0	10	1	0	-25.0%

2d Proportion Survived Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
31149-001		0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000
31149-002		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Graphics



Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	11-8871-7012	**Endpoint:**	8d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	03 Oct-18 14:21	**Analysis:**	Single 2x2 Contingency Table	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
31149-000	12-9413-3973	20 Sep-18 14:30	20 Sep-18 14:30	n/a	Wood E+I	Toxicity Identification Ev
31149-001	05-7214-2386	02 Jul-18 12:00	03 Jul-18 08:00	80d 2h		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
31149-000	Laboratory Control Water	C-Lab	Laboratory Control	
31149-001	Surface Water	C-Lab	CSW-3; 30816-007	

Fisher Exact Test

Sample I	vs	Sample II	Test Stat	P-Type	P-Value	Decision(α:5%)
Moderately Hard Lab		31149-001	0.2910	Exact	0.2910	Non-Significant Effect

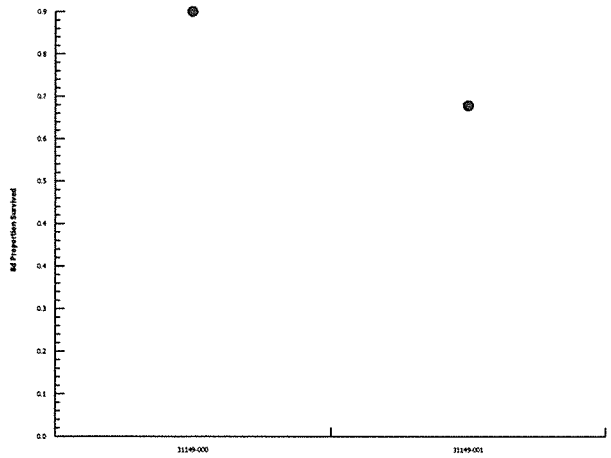
Data Summary

Sample	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
31149-000	MH	9	1	10	0.9	0.1	0.0%
31149-001		7	3	10	0.7	0.3	22.22%

8d Proportion Survived Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
31149-000	MH	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000
31149-001		0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	1.0000	1.0000

Graphics



Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	05-9427-5891	**Endpoint:**	8d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	03 Oct-18 14:21	**Analysis:**	Single 2x2 Contingency Table	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
31149-000	12-9413-3973	20 Sep-18 14:30	20 Sep-18 14:30	n/a	Wood E+I	Toxicity Identification Ev
31149-002	04-5832-2135	20 Sep-18 12:30	20 Sep-18 12:30	120m		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
31149-000	Laboratory Control Water	C-Lab	Laboratory Control	
31149-002	Surface Water	C-Lab	Treated CSW-3	

Fisher Exact Test

Sample I	vs	Sample II	Test Stat	P-Type	P-Value	Decision(α:5%)
Moderately Hard Lab		31149-002*	0.0099	Exact	0.0099	Significant Effect

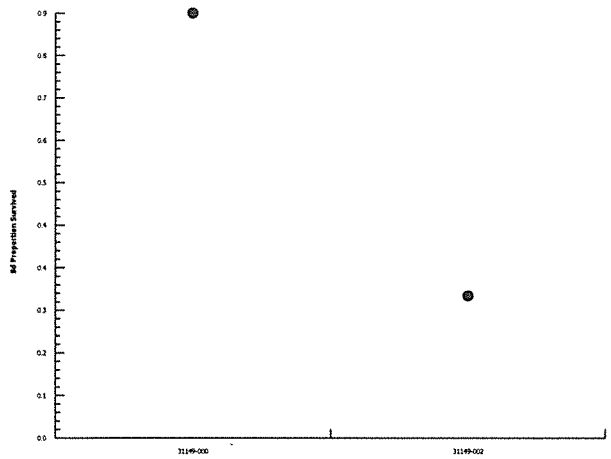
Data Summary

Sample	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
31149-000	MH	9	1	10	0.9	0.1	0.0%
31149-002		3	7	10	0.3	0.7	66.67%

8d Proportion Survived Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
31149-000	MH	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000
31149-002		0.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000	0.0000

Graphics



Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	08-8394-1742	**Endpoint:**	8d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	03 Oct-18 14:21	**Analysis:**	Single 2x2 Contingency Table	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
31149-000	12-9413-3973	20 Sep-18 14:30	20 Sep-18 14:30	n/a	Wood E+I	Toxicity Identification Ev
31149-003	19-3345-1968	20 Sep-18 12:00	20 Sep-18 12:00	2h		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
31149-000	Laboratory Control Water	C-Lab	Laboratory Control	
31149-003	Laboratory Control Water	C-Lab	Treated Laboratory Control	

Fisher Exact Test

Sample I	vs	Sample II	Test Stat	P-Type	P-Value	Decision(α:5%)
Moderately Hard Lab		31149-003*	0.0001	Exact	6.0E-05	Significant Effect

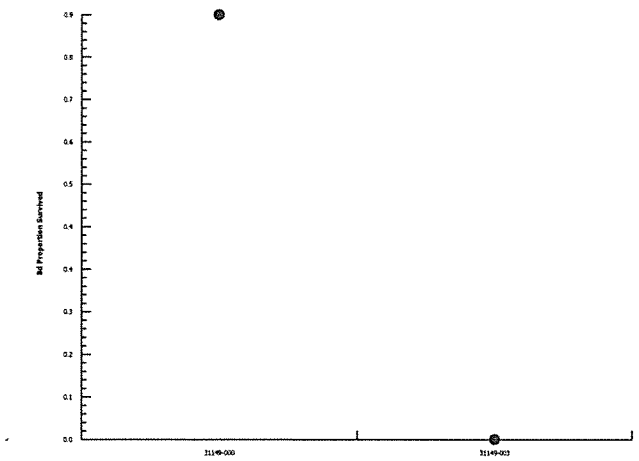
Data Summary

Sample	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
31149-000	MH	9	1	10	0.9	0.1	0.0%
31149-003		0	10	10	0	1	100.0%

8d Proportion Survived Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
31149-000	MH	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000
31149-003		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Graphics



Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	07-1696-1554	**Endpoint:**	8d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	03 Oct-18 14:25	**Analysis:**	Single 2x2 Contingency Table	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
31149-001	05-7214-2386	02 Jul-18 12:00	03 Jul-18 08:00	80d 2h	Wood E+I	Toxicity Identification Ev
31149-002	04-5832-2135	20 Sep-18 12:30	20 Sep-18 12:30	120m		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
31149-001	Surface Water	C-Lab	CSW-3; 30816-007	
31149-002	Surface Water	C-Lab	Treated CSW-3	

Fisher Exact Test

Sample I	vs	Sample II	Test Stat	P-Type	P-Value	Decision(α:5%)
31149-001		31149-002	0.0894	Exact	0.0894	Non-Significant Effect

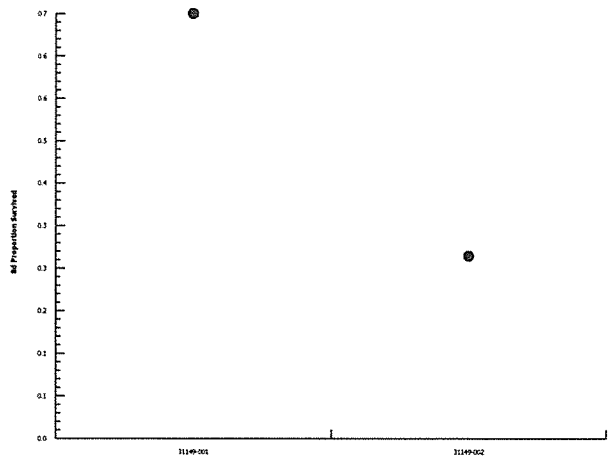
Data Summary

Sample	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
31149-001		7	3	10	0.7	0.3	0.0%
31149-002		3	7	10	0.3	0.7	57.14%

8d Proportion Survived Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
31149-001		0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	1.0000	1.0000
31149-002		0.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000	0.0000

Graphics



CETIS Analytical Report

Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	03-7666-6913	**Endpoint:**	8d Reproduction	**CETIS Version:**	CETISv1.9.3
Analyzed:	03 Oct-18 14:21	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
31149-000	12-9413-3973	20 Sep-18 14:30	20 Sep-18 14:30	n/a	Wood E+I	Toxicity Identification Ev
31149-001	05-7214-2386	02 Jul-18 12:00	03 Jul-18 08:00	80d 2h		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
31149-000	Laboratory Control Water	C-Lab	Laboratory Control	
31149-001	Surface Water	C-Lab	CSW-3; 30816-007	

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	31149-001 failed 8d reproduction	30.77%

Wilcoxon Rank Sum Two-Sample Test

Sample I	vs	Sample II	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)
Moderately Hard La		31149-001*	70.5	n/a	1	18	Exact	0.0036	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3100.05	3100.05	1	19.36	3.5E-04	Significant Effect
Error	2882.9	160.161	18			
Total	5982.95		19			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F Test	8.066	6.541	0.0047	Unequal Variances
Distribution	Shapiro-Wilk W Normality Test	0.8097	0.866	0.0012	Non-Normal Distribution

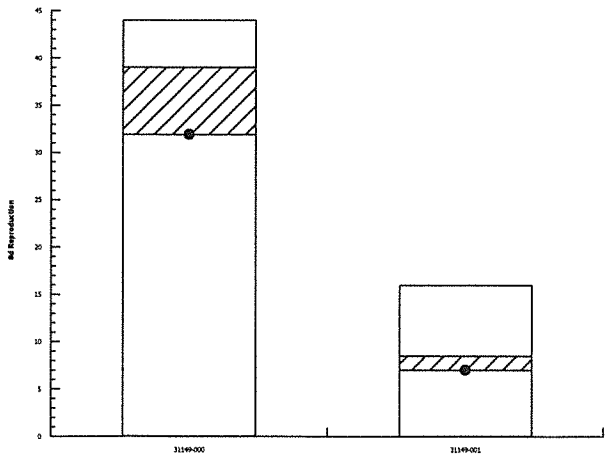
8d Reproduction Summary

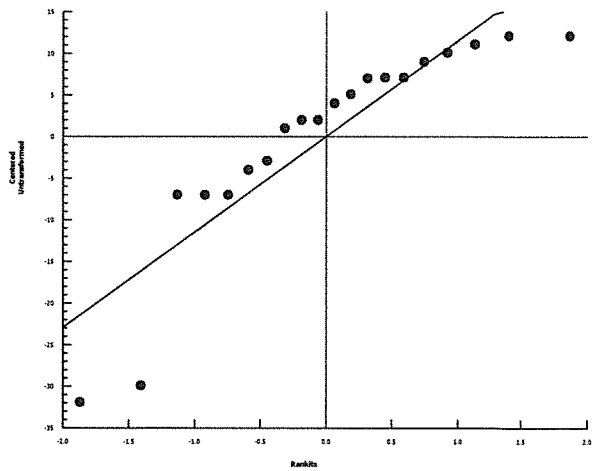
Sample	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
31149-000	MH	10	31.9	19.82	43.98	39	0	44	5.338	52.92%	0.00%
31149-001		10	7	2.748	11.25	8.5	0	16	1.88	84.92%	78.06%

8d Reproduction Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
31149-000	MH	44	44	39	39	37	42	29	0	43	2
31149-001		0	11	16	9	9	14	3	0	0	8

Graphics





Ceriodaphnia 7-d Survival and Reproduction Test — **EnviroSystems, Inc.**

Analysis ID:	05-4315-2722	**Endpoint:**	8d Reproduction	**CETIS Version:**	CETISv1.9.3
Analyzed:	03 Oct-18 14:21	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
31149-000	12-9413-3973	20 Sep-18 14:30	20 Sep-18 14:30	n/a	Wood E+I	Toxicity Identification Ev
31149-002	04-5832-2135	20 Sep-18 12:30	20 Sep-18 12:30	120m		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
31149-000	Laboratory Control Water	C-Lab	Laboratory Control	
31149-002	Surface Water	C-Lab	Treated CSW-3	

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	31149-002 failed 8d reproduction	30.52%

Wilcoxon Rank Sum Two-Sample Test

Sample I	vs	Sample II	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)
Moderately Hard La		31149-002*	68	n/a	1	18	Exact	0.0017	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3699.2	3699.2	1	23.47	1.3E-04	Significant Effect
Error	2837	157.611	18			
Total	6536.2		19			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F Test	9.426	6.541	0.0026	Unequal Variances
Distribution	Shapiro-Wilk W Normality Test	0.8008	0.866	8.9E-04	Non-Normal Distribution

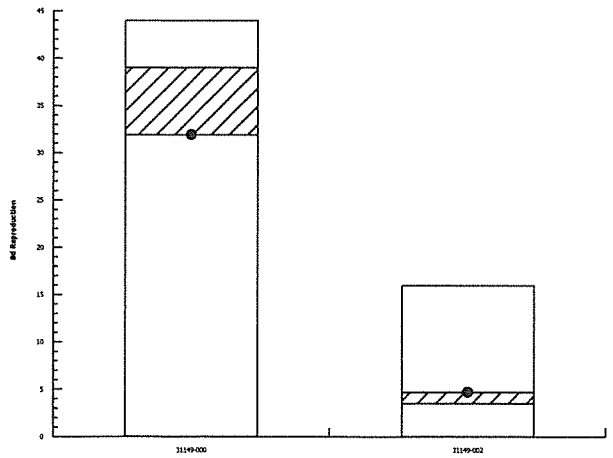
8d Reproduction Summary

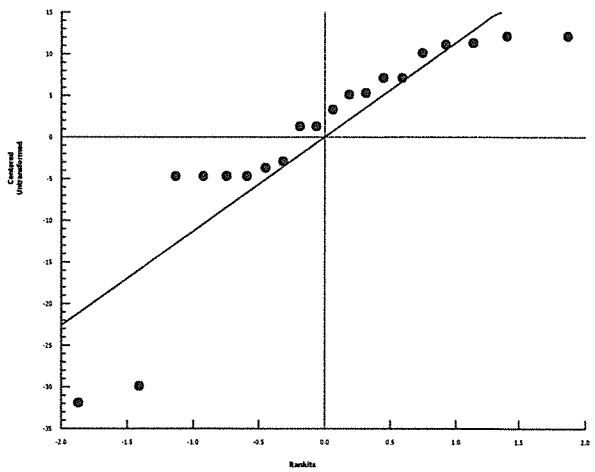
Sample	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
31149-000	MH	10	31.9	19.82	43.98	39	0	44	5.338	52.92%	0.00%
31149-002		10	4.7	0.7666	8.633	3.5	0	16	1.739	116.99%	85.27%

8d Reproduction Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
31149-000	MH	44	44	39	39	37	42	29	0	43	2
31149-002		1	0	6	6	0	8	0	10	16	0

Graphics





Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	19-5912-4285	**Endpoint:**	8d Reproduction	**CETIS Version:**	CETISv1.9.3
Analyzed:	03 Oct-18 14:21	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
31149-000	12-9413-3973	20 Sep-18 14:30	20 Sep-18 14:30	n/a	Wood E+I	Toxicity Identification Ev
31149-003	19-3345-1968	20 Sep-18 12:00	20 Sep-18 12:00	2h		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
31149-000	Laboratory Control Water	C-Lab	Laboratory Control	
31149-003	Laboratory Control Water	C-Lab	Treated Laboratory Control	

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	31149-003 failed 8d reproduction	29.02%

Wilcoxon Rank Sum Two-Sample Test

Sample I	vs	Sample II	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)
Moderately Hard La		31149-003*	60	n/a	1	18	Exact	6.0E-05	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5088.05	5088.05	1	35.71	1.2E-05	Significant Effect
Error	2564.9	142.494	18			
Total	7652.95		19			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Levene Equality of Variance Test	16.92	8.285	6.5E-04	Unequal Variances
Variances	Mod Levene Equality of Variance Test	5.046	8.285	0.0375	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.7105	0.866	5.2E-05	Non-Normal Distribution

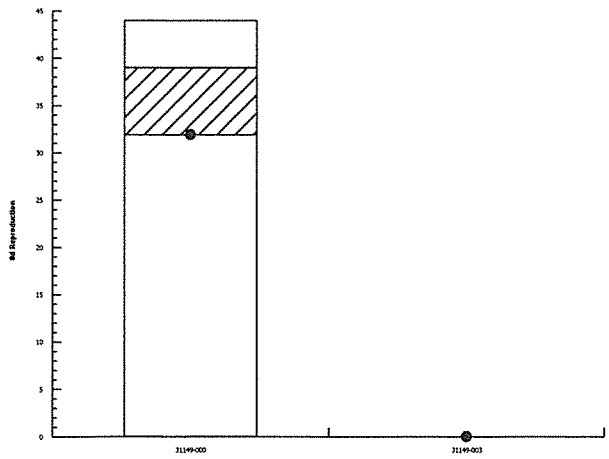
8d Reproduction Summary

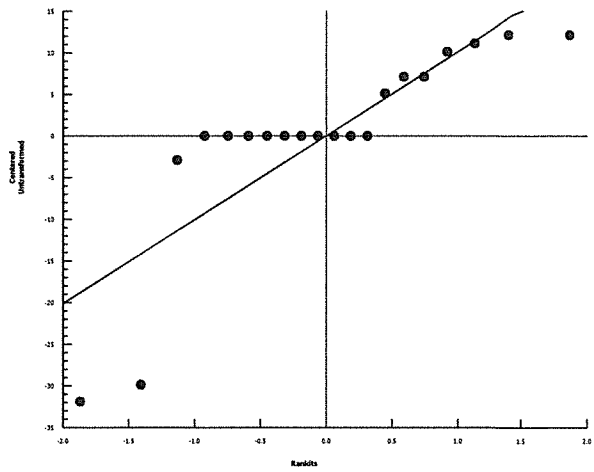
Sample	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
31149-000	MH	10	31.9	19.82	43.98	39	0	44	5.338	52.92%	0.00%
31149-003		10	0	0	0	0	0	0	0		100.00%

8d Reproduction Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
31149-000	MH	44	44	39	39	37	42	29	0	43	2
31149-003		0	0	0	0	0	0	0	0	0	0

Graphics





Ceriodaphnia 7-d Survival and Reproduction Test — EnviroSystems, Inc.

Analysis ID:	16-8354-7735	**Endpoint:**	8d Reproduction	**CETIS Version:**	CETISv1.9.3
Analyzed:	03 Oct-18 14:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Sample Code	Sample ID	Sample Date	Receipt Date	Sample Age	Client Name	Project
31149-001	05-7214-2386	02 Jul-18 12:00	03 Jul-18 08:00	80d 2h	Wood E+I	Toxicity Identification Ev
31149-002	04-5832-2135	20 Sep-18 12:30	20 Sep-18 12:30	120m		

Sample Code	Material Type	Sample Source	Station Location	Lat/Long
31149-001	Surface Water	C-Lab	CSW-3; 30816-007	
31149-002	Surface Water	C-Lab	Treated CSW-3	

Data Transform	Alt Hyp	Comparison Result	PMSD
Untransformed	C > T	31149-002 passed 8d reproduction	63.43%

Equal Variance t Two-Sample Test

Sample I	vs	Sample II	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)
31149-001		31149-002	0.8982	1.734	4.44	18	CDF	0.1905	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	26.45	26.45	1	0.8068	0.3809	Non-Significant Effect
Error	590.1	32.7833	18			
Total	616.55		19			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F Test	1.169	6.541	0.8202	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.9225	0.866	0.1109	Normal Distribution

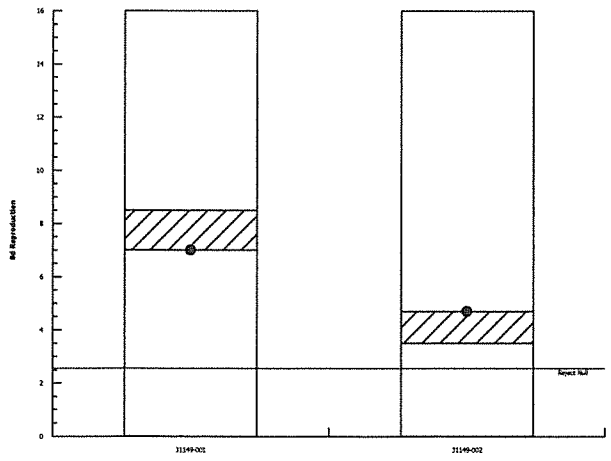
8d Reproduction Summary

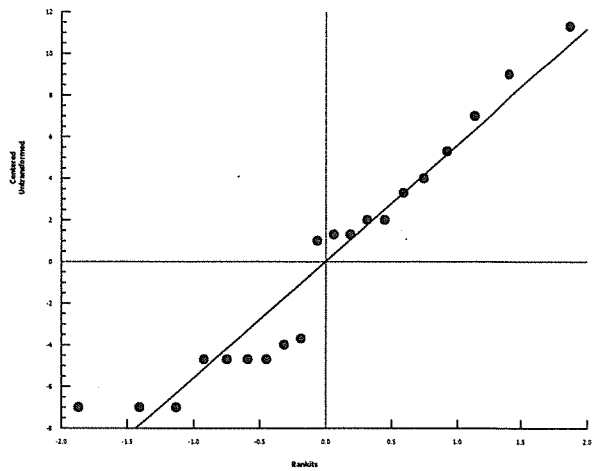
Sample	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
31149-001		10	7	2.748	11.25	8.5	0	16	1.88	84.92%	0.00%
31149-002		10	4.7	0.7666	8.633	3.5	0	16	1.739	116.99%	32.86%

8d Reproduction Detail

Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
31149-001		0	11	16	9	9	14	3	0	0	8
31149-002		1	0	6	6	0	8	0	10	16	0

Graphics





Ceriodaphnia 7-d Survival and Reproduction Test — **EnviroSystems, Inc.**

Start Date: 20 Sep-18 14:30 **Species:** Ceriodaphnia dubia **Sample Code:** 31149-000
End Date: 28 Sep-18 12:40 **Protocol:** EPA/821/R-02-013 (2002) **Sample Source:** C-Lab
Sample Date: 20 Sep-18 14:30 **Material:** Laboratory Control Water **Sample Station:** Laboratory Control

Conc-%	Rep	Pos	# Exposed	1d Survival	2d Survival	3d Survival	4d Survival	5d Survival	6d Survival	7d Survival	8d Survival	6d Neonates	7d Neonates	8d Neonates	Male
31149-000	1	26	1		1						1			44	0
31149-000	2	5	1		1						1			44	0
31149-000	3	14	1		1						1			39	0
31149-000	4	8	1		1						1			39	0
31149-000	5	35	1		1						1			37	0
31149-000	6	19	1		1						1			42	0
31149-000	7	38	1		1						1			29	0
31149-000	8	13	1		1						0			0	0
31149-000	9	16	1		1						1			43	0
31149-000	10	24	1		1						1			2	0
31149-001	1	17	1		0						0			0	0
31149-001	2	7	1		1						1			11	0
31149-001	3	10	1		1						1			16	0
31149-001	4	39	1		1						1			9	0
31149-001	5	40	1		1						1			9	0
31149-001	6	29	1		1						1			14	0
31149-001	7	34	1		1						0			3	0
31149-001	8	36	1		0						0			0	0
31149-001	9	21	1		1						1			0	0
31149-001	10	30	1		1						1			8	0
31149-002	1	11	1		1						0			1	0
31149-002	2	1	1		1						0			0	0
31149-002	3	27	1		1						1			6	0
31149-002	4	32	1		1						0			6	0
31149-002	5	20	1		1						0			0	0
31149-002	6	12	1		1						0			8	0
31149-002	7	23	1		1						0			0	0
31149-002	8	2	1		1						1			10	0

Conc-%	Rep	Pos	# Exposed	1d Survival	2d Survival	3d Survival	4d Survival	5d Survival	6d Survival	7d Survival	8d Survival	6d Neonates	7d Neonates	8d Neonates	Male
31149-002	9	28	1		1						1			16	0
31149-002	10	31	1		1						0			0	0
31149-003	1	3	1		1						0			0	0
31149-003	2	18	1		1						0			0	0
31149-003	3	4	1		0						0			0	0
31149-003	4	9	1		0						0			0	0
31149-003	5	6	1		0						0			0	0
31149-003	6	22	1		0						0			0	0
31149-003	7	15	1		0						0			0	0
31149-003	8	25	1		0						0			0	0
31149-003	9	37	1		0						0			0	0
31149-003	10	33	1		0						0			0	0

Ceriodaphnia dubia - Blocking by Parentage Tracking Sheet

ESI #: 31149

CLIENT: Wood PLC

START DATE: 9/20/18

START TIME: 1430

INITIAL: MW

COLUMN added to	*C. dubia* ADULT USED board #	cup#
A	MHR 776	1A
B		1B
C		1C
D		1D
E		1E
F		1F
G		1G
H	MSR 841	1A
I		1B
J		1D

P:\General Projects\FORMS\LABFORMS\Ceriodaphnia dubia Blocking by Parentage 2013.wpd

FRESHWATER CHRONIC ASSAY - NEW WATER QUALITIES
C. dubia

STUDY #: 31149

CLIENT: WOOD PLC

SAMPLE: CSW-3

DILUENT: NA

NEW DISSOLVED OXYGEN (mg/L)

CONC.	REP.	0	1	2	3	4	5	6	7
Lab	A	8.8	8.8	8.6	8.8	9.0	9.1	8.7	8.6
CSW-3	A	9.4	9.3	9.1	9.1	8.8	9.3	8.8	8.7
Treated CSW-3	A	8.3	8.9	8.6	9.4	9.0	9.6	9.1	8.9
Treated Control	A	8.2	8.8	8.4	8.7	\	\	\	\

NEW SPECIFIC CONDUCTIVITY (µmhos/cm)

CONC.	REP.	0	1	2	3	4	5	6	7
Lab	A	329	333	329	332	330	325	338	329
CSW-3	A	294	304	292	315	307	292	304	311
Treated CSW-3	A	483	504	484	518	508	479	498	511
Treated Control	A	640	670	639	689	\	\	\	\

NEW TEMPERATURE (°C)

CONC.	REP.	0	1	2	3	4	5	6	7
Lab	A	23	23	23	22	22	22	24	23
CSW-3	A	24	24	24	26	25	22	24	23
Treated CSW-3	A	24	24	24	26	25	22	24	25
Treated Control	A	24	24	24	26	\	\	\	\

pH (SU)

CONC.	REP.	0	1	2	3	4	5	6	7
Lab	A	8.05	8.19	8.13	8.06	8.21	8.13	8.15	8.11
CSW-3	A	7.81	7.83	7.75	7.76	7.91	7.90	7.93	7.88
Treated CSW-3	A	7.88	7.89	7.87	7.79	7.93	7.95	7.97	8.00
Treated Control	A	7.61	7.43	7.57	7.54	\	\	\	\
INC. TEMP. (°C):		25	25	25	25	25	25	25	25
DATE:		9/20/18	09/21	9/22	09/23/18	09/24	09/25	09/26	09/27
TIME:		1425	1405	1125	1350	1615	1220	1230	0935
INITIALS:		MW	CFS	MW	MS	LAG	LAG	LAG	~~LAG~~ MW

MW 9/27

LAB

DAY 0 (START)

ALK	HARD	AMM.	TS/TDS	T. METALS	TOC	TRC
003	004	005	006	001	002	0.0

Ceriodaphnia dubia CHRONIC REPRODUCTION ASSAY

OLD WATER QUALITIES

STUDY #: 31149	CLIENT: WOOD PLC	SAMPLE: CSW-3

CONC.	DAY	pH (SU)	Temp (°C)	DO (mg/L)	S/C (µMHOS/CM)	INITIALS
LAB	1	8.33	22	7.9	357	MW
	2	8.34	22	8.0	341	MW
	3	8.21	22	8.9	392	LAG
	4	8.27	20	9.1	372	LAG
	5	8.11	22	9.1	394	LAG
	6	8.11	26	8.5	403	LAG
	7	8.08	21	8.7	349	MW
	8	8.21	21	8.8	375	GRS
CSW-3	1	8.41	22	7.8	346	
	2	8.40	21	7.9	310	
	3	8.31	22	8.9	349	
	4	8.31	20	9.2	330	
	5	8.23	22	9.1	349	
	6	8.20	26	8.5	(E10) MW 9127 (E15) MW 9127	
	7	8.17	21	9.0	309	
	8	8.28	21	8.7	329	
TREATED CSW-3	1	8.58	22	8.1	550	
	2	8.47	21	8.4	504	
	3	8.42	22	8.9	565	
	4	8.41	19	9.2	517	
	5	8.37	22	9.1	559	
	6	8.31	26	8.6	570	
	7	8.42	21	9.0	500	
	8	8.37	21	8.8	525	
TREATED CONTROL	1	8.63	22	8.2	708	
	2	8.51	21	8.3	660	
	3	8.37	22	8.9	713	
	4					
	5					
	6					
	7					
	8					

(E10) MW 9127 value overlooked on day 6.

PREPARATION of DILUTIONS

STUDY: 31149	CLIENT: WOOD PLC	SAMPLE: CSW-3
SPECIES: *C. dubia*	TEST: Chronic Renewal	

Diluent: NA	Day: 0	Day: 1	Day: 2
Concentration	Final Volume	Final Volume	Final Volume
LAB	200	200	200
CSW-3	↓	↓	↓
TREATED CSW-3			
TREATED CONTROL	↓	↓	↓

Diluent: NA	Day: 3	Day: 4	Day: 5
Concentration	Final Volume	Final Volume	Final Volume
LAB	200	200	200
CSW-3	↓	↓	↓
TREATED CSW-3			
TREATED CONTROL	↓	↓	↓

Diluent: NA	Day: 6	Day: 7
Concentration	Final Volume	Final Volume
LAB	200	200
CSW-3	↓	↓
TREATED CSW-3		
TREATED CONTROL	↓	↓

Day	Date	Time	Init.
0	09/20/18	1425	MW
1	09/21	1345	CFS
2	9122	1120	MW
3	09/23/18	1345	MS
4	09/24/18	1545	MS
5	09/25/18	1145	MW
6	09/26/18	1135	MS
7	09/27/18	0915	LAG

Lab Water ID:

Day 0: 31145 W-1175

Day 1: 31145 W-1175

Day 2: 31145 W-1175

Day 3: 31145 W-1175

Day 4: 31145 W-1175

Day 5: 31145 W-1175

Day 6: 31145 W-1175

Day 7: 31145 W-1175

RECORD OF METERS USED FOR WATER QUALITY MEASUREMENT

C. dubia

STUDY: 31149	CLIENT: WOOD PLC	SAMPLE: CSW-3

OLD WATER QUALITIES

	0	1	2	3	4	5	6	7	8
Water Quality Station #:		MP03	2	1	1	1	1	2	2
Temp. - Thermometer or Probe:		MP03	ML01	ML02	ML02	ML02	ML02	ML01	ML01
Initials:		MW	MW	LAG	LAG	LAG	LAG	MW	GRS

NEW WATER QUALITIES

	0	1	2	3	4	5	6	7	8
Water Quality Station #:	2	2	2	1	1	1	1	1	
Temp. - Thermometer or Probe:	ML01	~~MW~~ 9/22 ~~AAW~~ ML01	~~MW~~ 9/22 ~~AAW~~ ML01	ML02	ML02	ML02	ML02	ML02	
Initials:	MW	~~MW~~ CRS	MW	MS	LAG	LAG	LAG	MW	
Date:	9/20	9/21	9/22	09/23/13	09/24	09/25	09/26	9/27	09/28/13

Water Quality Station #1		Water Quality Station #2		COMMENTS
DO meter #:	ML02	DO meter #:	ML01	
DO probe #:	160	DO probe #:	96	
pH meter #:	ML02	pH meter #:	ML01	
pH probe #:	163	pH probe #:	158	
S/C meter #:	ML02	S/C meter #:	ML01	
S/C probe #:	1	S/C probe #:	159	

Report No: 30817 SDG:
Project: C-Lab

Sample ID: CSW-3
Matrix: Water
Sampled: 07/06/18 1230

Parameter		Result	Quant Limit	Units	Date Prepared	Date of Analysis	INIT/Method/Reference
CSW-3							
Aluminum, total	30817-101	0.043	0.02	mg/L	09/28/18 1022	09/28/18 2314	JLH/EPA 200.8
Cadmium, total	30817-101	ND	0.0002	mg/L	09/28/18 1022	09/28/18 2314	JLH/EPA 200.8
Calcium, total	30817-101	24.8	0.05	mg/L	09/28/18 1022	09/28/18 2314	JLH/EPA 200.8
Chromium, total	30817-101	0.24	0.001	mg/L	09/28/18 1022	09/28/18 2314	JLH/EPA 200.8
Copper, total	30817-101	0.01	0.0005	mg/L	09/28/18 1022	09/28/18 2314	JLH/EPA 200.8
Iron, total	30817-101	0.05	0.01	mg/L	09/28/18 1022	09/28/18 2314	JLH/EPA 200.8
Lead, total	30817-101	ND	0.0002	mg/L	09/28/18 1022	09/28/18 2314	JLH/EPA 200.8
Magnesium, total	30817-101	2.06	0.05	mg/L	09/28/18 1022	09/28/18 2314	JLH/EPA 200.8
Nickel, total	30817-101	0.0016	0.001	mg/L	09/28/18 1022	09/28/18 2314	JLH/EPA 200.8
Selenium, total	30817-101	ND	0.002	mg/L	09/28/18 1022	09/28/18 2314	JLH/EPA 200.8
Zinc, total	30817-101	0.0075	0.002	mg/L	09/28/18 1022	09/28/18 2314	JLH/EPA 200.8

Notes:

ND = Not Detected

Report No: 30817 SDG:
Project: C-Lab

Sample ID: MHR W-1175
Matrix: Water
Sampled: 09/19/18 1330

Parameter		Result	Quant Limit	Units	Date Prepared	Date of Analysis	INIT/Method/Reference
MHR							
Aluminum, total	30817-104	ND	0.02	mg/L	09/28/18 1100	09/28/18 1919	JLH/EPA 200.8
Cadmium, total	30817-104	ND	0.0003	mg/L	09/28/18 1100	09/28/18 1919	JLH/EPA 200.8
Calcium, total	30817-104	17.6	0.05	mg/L	09/28/18 1100	09/28/18 1919	JLH/EPA 200.8
Chromium, total	30817-104	ND	0.001	mg/L	09/28/18 1100	09/28/18 1919	JLH/EPA 200.8
Copper, total	30817-104	0.0009	0.0005	mg/L	09/28/18 1100	09/28/18 1919	JLH/EPA 200.8
Iron, total	30817-104	ND	0.01	mg/L	09/28/18 1100	09/28/18 1919	JLH/EPA 200.8
Lead, total	30817-104	ND	0.0003	mg/L	09/28/18 1100	09/28/18 1919	JLH/EPA 200.8
Magnesium, total	30817-104	12.9	0.05	mg/L	09/28/18 1100	09/28/18 1919	JLH/EPA 200.8
Nickel, total	30817-104	ND	0.001	mg/L	09/28/18 1100	09/28/18 1919	JLH/EPA 200.8
Selenium, total	30817-104	0.0031	0.002	mg/L	09/28/18 1100	09/28/18 1919	JLH/EPA 200.8
Zinc, total	30817-104	0.0026	0.002	mg/L	09/28/18 1100	09/28/18 1919	JLH/EPA 200.8

Notes:

ND = Not Detected

Report No: 30817 SDG:
Project: C-Lab

Sample ID: CSW-3 treated
Matrix: Water
Sampled: 07/06/18 1230

Parameter		Result	Quant Limit	Units	Date Prepared	Date of Analysis	INIT/Method/Reference
Aluminum, total	30817-105	ND	0.02	mg/L	09/28/18 1100	09/28/18 1932	JLH/EPA 200.8
Cadmium, total	30817-105	ND	0.0003	mg/L	09/28/18 1100	09/28/18 1932	JLH/EPA 200.8
Calcium, total	30817-105	0.05	0.05	mg/L	09/28/18 1100	09/28/18 1932	JLH/EPA 200.8
Chromium, total	30817-105	0.23	0.001	mg/L	09/28/18 1100	09/28/18 1932	JLH/EPA 200.8
Copper, total	30817-105	0.0054	0.0005	mg/L	09/28/18 1100	09/28/18 1932	JLH/EPA 200.8
Iron, total	30817-105	ND	0.01	mg/L	09/28/18 1100	09/28/18 1932	JLH/EPA 200.8
Lead, total	30817-105	0.0003	0.0003	mg/L	09/28/18 1100	09/28/18 1932	JLH/EPA 200.8
Magnesium, total	30817-105	ND	0.05	mg/L	09/28/18 1100	09/28/18 1932	JLH/EPA 200.8
Nickel, total	30817-105	ND	0.001	mg/L	09/28/18 1100	09/28/18 1932	JLH/EPA 200.8
Selenium, total	30817-105	ND	0.002	mg/L	09/28/18 1100	09/28/18 1932	JLH/EPA 200.8
Zinc, total	30817-105	0.0068	0.002	mg/L	09/28/18 1100	09/28/18 1932	JLH/EPA 200.8

Notes:

ND = Not Detected

Report No: 30817 SDG:
Project: C-Lab

Sample ID: MHR W-1175 treated
Matrix: Water
Sampled: 09/19/18 1330

Parameter		Result	Quant Limit	Units	Date Prepared	Date of Analysis	INIT/Method/Reference
Aluminum, total	30817-106	ND	0.02	mg/L	09/28/18 1100	09/28/18 1925	JLH/EPA 200.8
Cadmium, total	30817-106	ND	0.0003	mg/L	09/28/18 1100	09/28/18 1925	JLH/EPA 200.8
Calcium, total	30817-106	ND	0.05	mg/L	09/28/18 1100	09/28/18 1925	JLH/EPA 200.8
Chromium, total	30817-106	ND	0.001	mg/L	09/28/18 1100	09/28/18 1925	JLH/EPA 200.8
Copper, total	30817-106	0.0008	0.0005	mg/L	09/28/18 1100	09/28/18 1925	JLH/EPA 200.8
Iron, total	30817-106	ND	0.01	mg/L	09/28/18 1100	09/28/18 1925	JLH/EPA 200.8
Lead, total	30817-106	ND	0.0003	mg/L	09/28/18 1100	09/28/18 1925	JLH/EPA 200.8
Magnesium, total	30817-106	ND	0.05	mg/L	09/28/18 1100	09/28/18 1925	JLH/EPA 200.8
Nickel, total	30817-106	ND	0.001	mg/L	09/28/18 1100	09/28/18 1925	JLH/EPA 200.8
Selenium, total	30817-106	0.0028	0.002	mg/L	09/28/18 1100	09/28/18 1925	JLH/EPA 200.8
Zinc, total	30817-106	0.012	0.002	mg/L	09/28/18 1100	09/28/18 1925	JLH/EPA 200.8

Notes:

ND = Not Detected

Assay Review Checklist

DATE IN: _____
DATE DUE: _____
_____

STUDY#: 31149
CLIENT: Wood PLC
PROJECT: _____
ASSAY: Cd 7DCR

Project Paperwork Check for Completeness			
	Date	Initials	Comments
Day 0	9/20/18	MW	
Day 1	9/21/18	MW	
Day 2	9/22/18	MW	
Day 3	09/23/18	LAG	
Day 4	09/24	LAG	
Day 5	09/25	LAG	
Day 6	09/26	LAG	
Day 7	09/27	MW	
Day 8	09/28/18	GRS	

Analyst Data Review	Date	Initials	Comments
Chains of Custody Complete	10/5/18	CHS	
Sample Receipt Complete	10/5/18	CHS	
Organism Culture Sheet(s)	N/A	N/A	
Bench Sheets Complete (dates, times, initials, etc...)	10/01/18	GRS	
Water Quality Data Complete	↓	↓	
TRC Values & Bottle Numbers			
Daphnid Calculations Complete			
Weights Reported	N/A	N/A	
Assay Acceptability Review	10/01/18	GRS	

Technical Report Review	Date	Initials	Comments
Statistical Analysis Complete	10/11/18	CHS	KC(NR) 10/1/18
Statistical Analysis Reviewed	10/3/18	LF	
Data Acceptability Review	10/11/18	CHS	
Supporting Chemistry Report	10/15/18	CHS	
Draft Report	10/15/18	CHS	
QA Audit/Review Complete			
Final Report Reviewed	10/15-16/18	KC(NR)/W	10/16/18 (NR)
Final Report Printed - PDF	10/16/18	NR	
Executive Summary / Chems Sent			
Report E-mailed / Faxed	10/16/18	NR	
Report Logged Out / Invoice Sent	↓	↓	
Report Scanned to Archive			

P:\GENERAL PROJECTS\FORMS\LABFORMS\$ Assay Review Checklist.wpd

Honeywell
THE POWER OF CONNECTED

APPENDIX E
APRIL 2019 SURFACE WATER TOXICITY TESTS

RESULTS OF CHRONIC TOXICITY TESTING ON AN APRIL 2019 SAMPLE FROM WOOD ENVIRONMENTAL & INFRACSTUCTURE SOLUTIONS

Prepared for:

Risk Assessment/Natural Resources
Wood Environmental & Infrastructure Solutions
(Operating as Amec Foster Wheeler)
271 Mill Road, 3rd Floor
Chelmsford, Massachusetts 01824

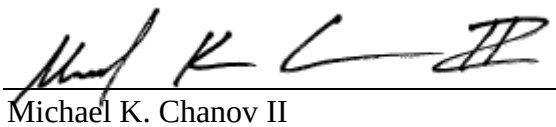
Prepared by:

EA Engineering, Science, and Technology, Inc., PBC
231 Schilling Circle
Hunt Valley, Maryland 21031
For questions, please contact Michael Chanov
ph: 410-584-7000

Results relate only to the items tested or to the samples as received by the laboratory.

This report shall not be reproduced, except in full, without written approval of EA Engineering, Science, and Technology, Inc., PBC

This report contains 6 pages plus 3 attachments.



18 April 2019

Michael K. Chanov II
Laboratory Director

Date

EA Project Number 70005.15

ACCREDITED IN ACCORDANCE WITH nelac ID# E87550

EA Report Number 8001

INTRODUCTION

At the request of Wood Environmental & Infrastructure Solutions, Maryland, EA Engineering, Science, and Technology performed chronic toxicity testing on a grab sample of CSW-3 from Graton, Massachusetts. Daily renewal chronic toxicity tests were conducted with a sample collected on 4 April 2019. The test species, *Ceriodaphnia dubia* (water flea), were exposed to 100, 75, 50, 25, 12.5, and 6.25 percent sample and a laboratory dilution water control. The objective of the toxicity testing was to determine the effects on survival and reproduction of the organisms exposed to the sample concentrations as compared to the dilution water control. The results of the *C. dubia* April 2019 test are presented in this report.

The toxicity testing was conducted following EA's standard operating procedures (EA 2018) which are in accordance with US EPA guidance (US EPA 2002). The results of the chronic toxicity tests were analyzed using the ToxCalc statistical software package (Version 5.0, Tidepool Scientific Software) and followed US EPA guidance (US EPA 2002). Summaries of sample and test information for *C. dubia* are presented on pages 5-6. Copies of raw data sheets and statistics are included in Attachment I, and reference toxicant test data are included in Attachment II. The Report Quality Assurance Record is included as Attachment III.

RESULTS

The results of the *Ceriodaphnia dubia* toxicity testing on the April 2019 CSW-3 sample from Wood Environmental & Infrastructure Solutions comply with current NELAC standards, with the exception of sample usage.

The *C. dubia* chronic toxicity test results are summarized on page 6. After 48 hours, there was a minimum of 90 percent survival in the sample concentrations and 100 percent survival in the dilution water control. The 48-hour LC50 was >100 percent sample (<1.0 TU_a). At test termination on day 7, there was a minimum of 90 percent survival in all the sample concentrations and 100 percent survival in the control. Mean young in the percent sample concentrations ranged from 28.2 to 34.9 neonates per organism, which were not significantly less (p=0.05) when compared to the control mean young production of 28.2 neonates per organism. The NOEC was 100 percent sample. The LOEC and ChV were both >100 percent sample. The IC25 for this test was >100 percent sample. The TU_c for this test (100/IC25) was <1.0 TU_c.

In accordance with EA's quality control/quality assurance program, monthly chronic reference toxicant tests were conducted *C. dubia.* The results of the monthly *C. dubia* reference toxicant tests fell within acceptable control chart limits. The results are summarized on page 5 for *C. dubia*. Reference toxicant test data are included in Attachment II. The Report Quality Assurance Record is included as Attachment III.

REFERENCES

EA. 2018. EA Ecotoxicology Laboratory Quality Assurance and Standard Operating Procedures Manual. EA Manual ATS-102. Internal document prepared by EA's Ecotoxicology Laboratory, EA Engineering, Science, and Technology, Inc., PBC, Hunt Valley, Maryland.

US EPA. 2002. Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. Fourth Edition. EPA-821-R-02-013. U.S. Environmental Protection Agency, Office of Water, Washington, D.C.

SUMMARY OF SAMPLE/TEST INFORMATION

Test: ***Ceriodaphnia dubia*** **daily renewal chronic toxicity test**

Test Procedure: **EA Protocol CD-CH-05**
Survival and reproduction test with cladoceran (*Ceriodaphnia dubia*)

Client Name: **Wood Environment & Infrastructure Solutions**

Sample Description: **CSW-3 – Graton, Massachusetts**

EA Accession Number	Collection Time and Date	Receipt Time and Date	Sample Usage
AT9-281	0930, 4 April 2019	1110, 5 April 2019	Entire Test

EA Test Number: **TN-19-225**

Test initiation time and date: 1156, 5 April 2019
Test completion time and date: 0847, 12 April 2019

Dilution Water Description: **Moderately hard synthetic freshwater**

Test Vessel: **30-ml cup**

Test Volume: **15 ml**

Number of Organisms per Replicate: **1**

Number of Replicates per Concentration: **10**

Organism Lot Information
Lot Number: Not applicable
Source: EA's Culture Facility (Hunt Valley, Maryland)
Age: <24 hours old, released within an 8-hour period

Reference Toxicant Test Information[(a)]
Reference Toxicant: Potassium chloride (KCl)
EA Test Number: RT-19-075
6-Day IC25: 262 mg/L KCl
Laboratory control chart acceptability range for IC25: 198-411 mg/L KCl

(a) Cumulative reference toxicant test data are included in Attachment II.

SUMMARY OF SAMPLE/TEST INFORMATION (continued)

Test Species: ***Ceriodaphnia dubia* (water flea)**
Sample Description: **CSW-3 – Graton, Massachusetts**
Sample Dates: 4 April 2019
EA Test Number: TN-19-225

Test Concentration (percent sample)	48-Hour Percent Survival	7-Day Percent Survival	Mean Young Production as Neonates/Organism (±S.D.)
Control	100	100	28.2 (±5.2)
6.25	90	90	28.2 (±10.4)
12.5	100	100	32.6 (±4.6)
25	100	100	33.3 (±4.4)
50	100	100	31.2 (±8.0)
75	90	90	31.0 (±11.1)
100	100	100	34.9 (±8.7)

Acute Toxicity Test Endpoints (as percent sample)

48-hour LC50:	>100
TU_a (100÷LC50):	<1.0

Chronic Toxicity Test Endpoints (as percent sample)

NOEC:	100
LOEC:	>100
ChV:	>100
IC25:	>100
TU_c (100/IC25) :	<1.0
PMSD:	29.5

Water Quality Parameters on Test Solutions	Range
Temperature (°C):	24.0 – 25.4
pH:	7.7 – 8.3
Dissolved Oxygen (mg/L):	7.9 – 8.6
Conductivity (µS/cm):	316 – 389

Water Quality Parameters on Samples (at Receipt)	AT9-281
Temperature (°C):	1.7
pH:	7.8
Total Residual Chlorine (mg/L):	<0.01
Alkalinity (mg/L as $CaCO_3$):	66
Hardness (mg/L as $CaCO_3$):	56
Conductivity (µS/cm):	320
Ammonia (NH_3/L):	<0.1

.

ATTACHMENT I

Data Sheets and Statistical Analyses
(17 pages)

Chain-of-Custody Record

EA Engineering, Science, and Technology

EA Ecotoxicology Laboratory
231 Schilling Circle
Hunt Valley, Maryland 21031
Telephone: 410-584-7000
Fax: 410-584-1057

Sample Shipped By: (circle)
Fed. Ex UPS Other: _____
Tracking #: 8060 3926 5827

Client: Wood E+I Project No.: 36171874.1

NPDES Number: / Client Purchase Order Number: _____

City/State Collected: Groton, MA

PLEASE READ SAMPLING INSTRUCTIONS ON BACK OF FORM

Accession Number (office use only)	Grab	Composite	Collection Start Date/Time	Collection End Date/Time	Sample Description (including Site, Station Number, and Outfall Number)	Number/Volume of Container
AT9-281	G	—	4-4-19/930	4-4-19/930	IP2 CO 40419-CSW 3	2 gallons
					Location CSW3	
					for 7day Ceriodaphnia	
					dubia test for survival	
					and growth.	

Sampled By:	Date/Time	Received By:	Date/Time
	4/4/19 930		
Sampler's Printed Name: Mark Maggiore	Title: Environmental Scientist	Relinquished By:	Date/Time
Relinquished By:	Date/Time 4/4/19 1330	Received By Laboratory	Date/Time 4/5/19 1110

Was Sample Chilled During Collection? (Yes) No

Comments:

Sample Collection Parameters

Visual Description: Clear

Temperature (°C): 3.41

pH: 7.11

TRC (mg/L):

Other:

White-Report Production
EA 0534 F&B Rev.11/16

Yellow-Laboratory

Pink-Client/Sampler

SAMPLE CHECK-IN
FOR TESTING

Client: Wood E+I

EA Accession Number: AT9-281

Parameter	Acceptable Range	Measurement*	Meter	Date	Time	Initials
Temperature (°C)	≤4	1.7	T-21	4/5/19	1110	MJ
Is ice present?	---	✓	N/A	↓	↓	↓
pH	6.0-9.0	7.8	678			
TRC (mg/L)	<0.01	<0.01	AT-01			
Visual Description	---	Clear	N/A			

***If outside acceptable range, contact project manager.**

***OTHER PARAMETERS IF REQUIRED (SEE STUDY PLAN)*:**

Parameter	Acceptable Range	(✓)	Meter	Date	Time	Initials
Ammonia (preserve aliquot)	--	✓	N/A	4/5/19	1110	MJ
Parameter	**Acceptable Range**	**Measurement***	**Meter**	**Date**	**Time**	**Initials**
Salinity (ppt)	--					

C. dubia CHRONIC TOXICITY TEST DATA SHEET

Test Method: EPA 821-R-02-013 (1002.0)
Project Number: 70005.15
Client: Wood
QC Test Number: TN-19-225
Test Material: Effluent
Accession Number: AT9-281
Dilution Water: Mod Hard
Accession Number: LD9-228

Beginning Date: 4/5/19 Time: 1156
Ending Date: 4/12/19 Time: 0847
Adults Isolated Date: 4/4/19 Time: 1620
Neonates Pulled Date: 4/5/19 Time: 0000
Age of Neonates: <24 hrs Brood Size: 8+
Source: EA
Culture Water Temperature: 23.9 °C

Test Container: 30 mL cup Test Volume: 15 mL
Photoperiod: 16 *l*, 8 *d* Light Intensity: 50 - 100 fc

TEST SET-UP

TEST INITIATION

Date	Time	Initials	Activity
4/5/19	1139	MJ	Dilutions Made
	↓		
		↓	Test Vessels Filled
	1156		
↓		↓	Organisms Transferred
	1200	JA	Head Counts

CONCENTRATION SERIES

Test Concentration	Volume Test Material	Final Volume
Mod Hard Control	0 ml	200ml
6.25%	12.5 ml	↓
12.5%	25 ml	
25%	50 ml	
50%	100 ml	
75%	150 ml	
100%	200 ml	

Comments:

INTERMEDIATE DILUTION PREPARATION AND FEEDING

DILUTION PREPARATION

Day	Date	Time	Initials	Sample / Diluent
0	4/5/19	1139	MJ	AT9-281 / LD9-228
1	4/6/19	0951	MJ	AT9-281 / LD9-229
2	4/7/19	1115	JA	AT9-281 / LD9-231
3	4/8/19	1058	JA	AT9-281 / LD9-234
4	4/9/19	0935	LE	AT9-281 / LD9-235
5	4/10/19	0853	MJ	AT9-281 / LD9-238
6	4/11/19	0859	MJ	AT9-281 / LD9-240

FEEDING

Food: YCT + *Raphidocelis subcapitata*

Day	Date	Time	Initials	Amount
0	4/5/19	1156	MJ	200µL
1	4/6/19	1045	MJ	200µL
2	4/7/19	1154	JA	200µl
3	4/8/19	1130	JA	200µl
4	4/9/19	1015	MW	200µL
5	4/10/189	1018	JA	200µl
6	4/11/19	0954	MJ	200µL

JA 4/10/19

Ceriodaphnia dubia CHRONIC TOXICITY TEST

Client: Wood QC Test Number: TN- 19-225

First column=# neonates ; Second column = 0 (female), 1 (dead female), 2 (male), 3 (dead male), 9 (lost replicate)

Concentration	Day	1	2	3	4	5	6	7	8	9	10	Time/Initials
Mod Hard Control	1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1035 MJ
	2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1146 JA
	3	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1120 JA
	4	0 0	0 0	0 0	0 0	0 0	2 0	5 0	3 0	4 0	3 0	1414 JA
	5	6 0	3 0	5 0	2 0	5 0	2 0	5 0	3 0	4 0	3 0	1012 JA
	6	12 0	10 0	16 0	15 0	13 0	14 0	11 0	13 0	9 0	12 0	0950 MJ
	7	16 0	10 0	10 0	15 0	13 0	12 0	0 0	14 0	16 0	13 0	0847
Total # Neonates:		34	23	31	32	31	28	16	30	29	28	

Concentration	Day	1	2	3	4	5	6	7	8	9	10	Time/Initials
6.25%	1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 1	0 0	MJ
	2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	| |	0 0	JA
	3	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	| |	0 0	JA
	4	4 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	| |	0 0	JA
	5	4 0	5 0	2 0	4 0	2 0	2 0	2 0	3 0	| |	2 0	JA
	6	13 0	16 0	16 0	13 0	14 0	18 0	13 0	15 0	| |	12 0	MJ
	7	14 0	15 0	14 0	15 0	10 0	13 0	14 0	14 0	V V	13 0	
Total # Neonates:		35	36	32	32	26	33	29	32	0	27	

⑤JA 4/9/19

Concentration	Day	1	2	3	4	5	6	7	8	9	10	Time/Initials
12.5%	1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	MJ
	2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	JA
	3	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	JA
	4	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	JA
	5	2 0	2 0	2 0	5 0	2 0	4 0	3 0	5 0	2 0	3 0	JA
	6	12 0	14 0	14 0	17 0	15 0	17 0	11 0	16 0	14 0	17 0	MJ
	7	19 0	18 0	16 0	18 0	10 0	16 0	10 0	14 0	16 0	12 0	
Total # Neonates:		33	34	32	40	27	37	24	35	32	32	

Concentration	Day	1	2	3	4	5	6	7	8	9	10	Time/Initials
25%	1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	MJ
	2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	JA
	3	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	JA
	4	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	JA
	5	3 0	4 0	4 0	0 0	5 0	5 0	4 0	6 0	4 0	7 0	JA
	6	14 0	0 0	14 0	16 0	13 0	15 0	15 0	14 0	14 0	16 0	MJ
	7	14 0	18 0	14 0	16 0	17 0	14 0	16 0	17 0	17 0	13 0	
Total # Neonates:		31	22	32	36	35	34	35	37	35	36	

Concentration	Day	1	2	3	4	5	6	7	8	9	10	Time/Initials
50%	1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	MJ
	2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	JA
	3	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	JA
	4	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	JA
	5	5 0	0 0	4 0	0 0	3 0	7 0	5 0	7 0	0 0	4 0	JA
	6	13 0	0 0	11 0	13 0	14 0	14 0	12 0	12 0	13 0	15 0	MJ
	7	16 0	10 0	16 0	16 0	18 0	15 0	13 0	18 0	14 0	10 0	
Total # Neonates:		34	10	31	37	35	36	30	37	33	29	

Concentration	Day	1	2	3	4	5	6	7	8	9	10	Time/Initials
75%	1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	MJ
	2	0 0	0 1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	JA
	3	0 0	| |	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	JA
	4	0 0	| |	0 0	7 0	0 0	0 0	0 0	0 0	0 0	0 0	JA
	5	6 0	| |	6 0	0 0	6 0	6 0	6 0	7 0	0 0	5 0	JA
	6	14 0	| |	10 0	13 0	12 0	14 0	12 0	11 0	8 0	15 0	MJ
	7	14 0	V V	16 0	14 0	18 0	15 0	19 0	16 0	22 0	18 0	
Total # Neonates:		34	0	32	34 (31)	36	35	37	34	30	39	

Concentration	Day	1	2	3	4	5	6	7	8	9	10	Time/Initials
100%	1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	MJ
	2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	JA
	3	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	JA
	4	0 0	0 0	0 0	7 0	0 0	0 0	0 0	0 0	0 0	0 0	JA
	5	7 0	5 0	5 0	0 0	6 0	10 0	8 0	5 0	4 0	6 0	JA
	6	15 0	0 0	17 0	16 0	12 0	0 0	13 0	16 0	0 0	15 0	MJ
	7	23 0	18 0	20 0	16 0	16 0	18 0	19 0	10 0	15 0	19 0	
Total # Neonates:		45	23	42	39	34	28	40	39	19	40	

Neonate totals checked (date, initials): 4/14/19 JR

TOXICITY TEST WATER QUALITY DATA SHEET - NEW SOLUTIONS

Project Number: 70005.15 | TEST ORGANISM | Beginning Date: 4/5/19 Time: 1156

Client: Wood | Common Name: Water flea | Ending Date: 4/12/19 Time: 0817

QC Test Number: TN- 19-225 | Scientific Name: *C. dubia*

TARGET VALUES: Temp: 25±1 °C pH: 6.0 - 9.0 DO: ≥4.0 mg/L Salinity: 0 ppt Photoperiod: 16 *l*, 8 *d* Light Intensity: 50 - 100 fc

Test Conc.	Rep	Temperature (°C)							pH							Dissolved Oxygen (mg/L)							Conductivity (µS/cm)						
		0	1	2	3	4	5	6	0	1	2	3	4	5	6	0	1	2	3	4	5	6	0	1	2	3	4	5	6
MH Control		24.0	24.0	24.1	24.8	24.1	24.4	24.2	7.7	7.9	8.1	8.3	8.1	8.0	8.1	8.5	8.5	8.5	8.4	8.4	8.2	8.4	339	336	325	385	348	329	336
																										318			
6.25%		24.0	24.1	24.8	24.8	24.4	24.5	24.1	7.8	8.0	8.1	8.2	8.1	8.1	8.1	8.6	8.5	8.5	8.4	8.5	8.4	8.5	337	328	320	318	343	325	332
12.5%		24.0	24.1	24.4	24.8	24.7	24.5	24.1	7.8	8.0	8.1	8.1	8.1	8.0	8.1	8.6	8.5	8.5	8.4	8.5	8.4	8.5	334	326	319	316	339	324	330
25%		24.0	24.2	24.5	24.8	24.8	24.5	24.0	7.8	8.0	8.1	8.1	8.1	8.1	8.1	8.6	8.5	8.5	8.4	8.5	8.3	8.5	331	326	320	317	337	324	329
50%		24.0	24.1	24.5	24.8	24.8	24.5	24.0	7.9	8.0	8.0	8.1	8.1	8.1	8.1	8.6	8.5	8.6	8.3	8.4	8.3	8.5	327	325	321	319	333	322	326
75%		24.0	24.1	24.6	24.9	24.8	24.5	24.0	7.9	8.0	8.0	8.1	8.1	8.1	8.1	8.6	8.6	8.6	8.3	8.3	8.3	8.5	323	324	322	322	331	321	323
100%		24.0	24.0	24.8	24.9	24.7	24.4	24.0	7.9	8.0	8.0	8.1	8.1	8.1	8.1	8.6	8.6	8.5	8.3	8.3	8.3	8.6	318	324	324	324	326	321	321
Meter Number		678	678	678	680	680	680	680	678	678	678	680	680	680	680	678	678	678	680	680	680	680	678	678	678	680	680	680	680
Time		1145	0953	1120	1105	0940	0905	0901	1145	0953	1120	1105	0940	0905	0901	1145	0953	1120	1105	0940	0905	0901	1145	0953	1120	1105	0940	0905	0901
Initials		MJ	MJ	JA	JA	LL	MJ	MJ	MJ	MJ	JA	JA	LL	MJ	MJ	MJ	MJ	JA	JA	LL	MJ	MJ	MJ	MJ	JA	JA	LL	MJ	MJ

(b) J 4/8

TOXICITY TEST WATER QUALITY DATA SHEET - OLD SOLUTIONS

Project Number: 70005.15
Client: Wood
QC Test Number: TN-19-225

TEST ORGANISM
Common Name: Water flea
Scientific Name: *C. dubia*

Beginning Date: 4/5/19 Time: 1156
Ending Date: 4/12/19 Time: 0847

TARGET VALUES: Temp: 25±1 °C pH: 6.0 - 9.0 DO: ≥4.0 mg/L Salinity: 0 ppt Photoperiod: 16 *l*, 8 *d* Light Intensity: 50 - 100 fc

Test Conc.	Rep	Temperature (°C)							pH							Dissolved Oxygen (mg/L)							Conductivity (µS/cm)						
		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
MH Control		24.0	24.5	24.7	24.7	24.3	25.2	24.0	8.0	8.0	8.1	8.1	8.3	7.8	8.2	8.5	8.4	7.9	8.3	7.9	8.2	8.0	360	361	357	348	389	353	367
6.25%		24.2	24.6	25.0	24.8	24.6	25.2	24.7	8.0	8.0	8.1	8.1	8.3	7.9	8.2	8.6	8.4	8.0	8.3	8.3	8.4	8.1	348	350	341	338	357	342	350
12.5%		24.2	24.7	25.1	25.2	24.7	25.2	24.9	8.0	8.0	8.1	8.1	8.3	7.9	8.2	8.6	8.4	8.1	8.3	8.3	8.5	8.1	342	346	336	333	346	338	345
25%		24.4	24.8	25.2	25.3	24.7	25.3	25.2	8.0	8.0	8.1	8.1	8.2	7.9	8.2	8.5	8.4	8.1	8.4	8.2	8.5	8.0	339	347	336	336	344	336	348
50%		24.6	24.8	25.2	25.4	24.7	25.4	25.1	8.0	8.0	8.1	8.1	8.2	8.0	8.2	8.4	8.4	8.1	8.4	8.3	8.6	8.2	332	345	337	337	347	336	342
75%		24.6	24.8	25.2	25.4	24.7	25.4	25.2	8.0	8.0	8.1	8.0	8.2	8.0	8.2	8.4	8.4	8.2	8.5	8.3	8.6	8.2	329	348	346	346	358	335	337
100%		24.7	24.8	25.3	25.3	24.8	25.3	25.3	8.0	8.0	8.1	8.1	8.2	8.0	8.2	8.3	8.4	8.2	8.5	8.3	8.6	8.2	325	352	347	342	343	333	333
Meter Number		678	678	680	680	678	679	679	678	678	680	680	678	679	679	678	678	680	680	678	679	679	678	678	680	680	678	679	679
Time		1044	1154	1127	1027	1017	0957	0834	1044	1154	1127	1027	1017	0957	0834	1044	1154	1127	1027	1017	0957	0834	1044	1154	1127	1027	1017	0957	0834
Initials		MJ	JA	JA	JA	JA	MJ	MJ	MJ	JA	JA	JA	JA	MJ	MJ	MJ	JA	JA	JA	JA	MJ	MJ	MJ	JA	JA	JA	JA	MJ	MJ

TOXICOLOGY LABORATORY BENCH SHEET

Project Number: 70005.15

Client: Wood

QC Test Number: TN- 19-225

Date/Time/Initials	Comments/Activity

RANDOMIZATION CHART
(*C. dubia* Chronic Toxicity Test)

Project Number: 70005.15

Client: Wood

QC Test Number: TN-19-225

(White Boards)

1	4	6	3	5	2
4	3	6	1	2	5
6	1	5	2	4	3
6	2	1	4	5	3
3	6	2	4	1	5
3	5	4	6	2	1
5	4	1	3	6	2
1	5	3	2	4	6
6	2	4	1	5	3
4	1	2	6	3	5

BLOCK LOADING CHART
(*C. dubia* Chronic Toxicity Test)

Project Number: 70005.15

Client: Wood

QC Test Number: TN- 19-225

Back of Board

CUP 1	Load 1	Load 2	Load 3	Load 4	Load 5	Load 6
CUP 2	Load 2	Load 3	Load 4	Load 5	Load 6	Load 1
CUP 3	Load 3	Load 4	Load 5	Load 6	Load 1	Load 2
CUP 4	Load 4	Load 5	Load 6	Load 1	Load 2	Load 3
CUP 5	Load 5	Load 6	Load 1	Load 2	Load 3	Load 4
CUP 6	Load 6	Load 1	Load 2	Load 3	Load 4	Load 5
CUP 7	Load 1	Load 2	Load 3	Load 4	Load 5	Load 6
CUP 8	Load 2	Load 3	Load 4	Load 5	Load 6	Load 1
CUP 9	Load 3	Load 4	Load 5	Load 6	Load 1	Load 2
CUP 10	Load 4	Load 5	Load 6	Load 1	Load 2	Load 3

Front of Board

TOXICOLOGY LABORATORY CORRECTION BENCH SHEET

Project Number: 70005.15

Client: Wood

QC Test Number: TN-19-125

Correction Explanations

(a) Technician Error-Mathematical

(b) Technician Error-Manual Data Recording

(c) Technician Error-Head Count Observation

(d) Technician Error-Overwrite

(e) Technician Error-Missing Data

(f) Technician Error-Lost Organism

(g) Technician Error-Transcription Error

(h) Technician Error-Other:

(i) Meter Malfunction

TOXICOLOGY LABORATORY BENCH SHEET - TESTING LOCATION

Project Number: 70005.15

Client: Wood

QC Test Number: TN- 19 - 225

Day	Testing Location	Date	Time	Initials
0	5B	4/5/19	1156	MJ
1	5B	4/6/19	1035	MJ
2	5B	4/7/19	1154	JA
3	5B	4/8/19	1127	JA
4	5B	4/9/19	1030	mw
5	5B	4/10/19	1018	JA
6	5B	4/11/19	0955	MJ
7	5B	4/12/19	0947	MA
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

TOXICOLOGY LABORATORY BENCH SHEET

Project Number: 70005.15

Client: Wood

QC Test Number: TN- 19-225

Aliquot of sample warmed to test temperature, then aerated if supersaturated:

Date	Sample #	ON AIR			OFF AIR		
		Initial DO (mg/L)	Time	Initials	Final DO (mg/L)	Time	Initials
4/5/19	AT9-281	10.7	1122	MJ	8.5	1132	MJ
4/6/19	AT9-281	11.4	0919	MJ	8.1	0929	MJ
4/7/19	AT9-281	11.1	1053	JA	8.4	1103	JA
4/8/19	AT9-281	10.6	1028	JA	8.1	1038	JA
4/9/19	AT9-281	11.6	0904	JA	8.2	0914	JA
4/10/19 MJ (10)	4/10/19 AT9-281	11.7	0837	MJ	~~8.1~~ 8.1	0847	MJ
4/11/19	AT9-281	12.7	0840	LE	8.1	0850	MJ

Ceriodaphnia Survival and Reproduction Test-48 Hr Survival

Start Date:	4/5/2019	Test ID:	TN-19-225	Sample ID:	Wood
End Date:	4/12/2019	Lab ID:		Sample Type:	Effluent
Sample Date:		Protocol:	EPAF 91-EPA Freshwater	Test Species:	CD-Ceriodaphnia dubia
Comments:					

Conc-%	1	2	3	4	5	6	7	8	9	10
Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
6.25	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000
12.5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
25	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
50	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
75	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical
Control	1.0000	1.0000	0	10	10	10		
6.25	0.9000	0.9000	1	9	10	10	0.5000	0.0500
12.5	1.0000	1.0000	0	10	10	10	1.0000	0.0500
25	1.0000	1.0000	0	10	10	10	1.0000	0.0500
50	1.0000	1.0000	0	10	10	10	1.0000	0.0500
75	0.9000	0.9000	1	9	10	10	0.5000	0.0500
100	1.0000	1.0000	0	10	10	10	1.0000	0.0500

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	100	>100		1

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date:	4/5/2019	Test ID:	TN-19-225	Sample ID:	Wood
End Date:	4/12/2019	Lab ID:		Sample Type:	Effluent
Sample Date:		Protocol:	EPAF 91-EPA Freshwater	Test Species:	CD-Ceriodaphnia dubia
Comments:					

Conc-%	1	2	3	4	5	6	7	8	9	10
Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
6.25	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000
12.5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
25	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
50	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
75	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

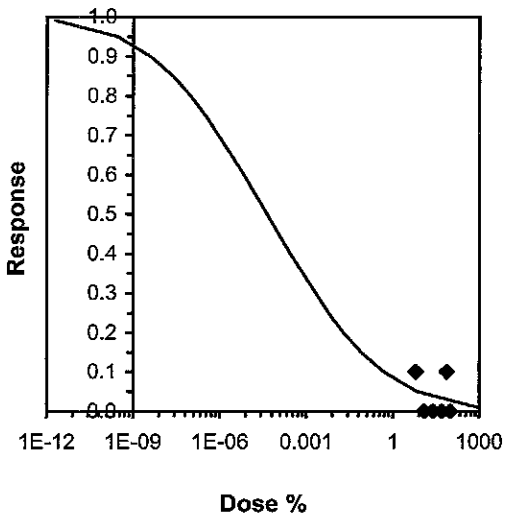
Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Number Resp	Total Number
Control	1.0000	1.0000	0	10	10	10			0	10
6.25	0.9000	0.9000	1	9	10	10	0.5000	0.0500	1	10
12.5	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
25	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
50	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
75	0.9000	0.9000	1	9	10	10	0.5000	0.0500	1	10
100	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	100	>100		1

Maximum Likelihood-Probit

Parameter	Value	SE	95% Fiducial Limits		Control	Chi-Sq	Critical	P-value	Mu	Sigma	Iter
Slope	-0.3171	0.72377	-1.7357	1.1015	0	4.25153	9.48773	0.37	-4.3606	-3.1537	5
Intercept	3.61733	1.05275	1.55393	5.68072							
TSCR											

Point	Probits	%	95% Fiducial Limits
EC01	2.674	946.449	
EC05	3.355	6.71195	
EC10	3.718	0.47984	
EC15	3.964	0.08092	
EC20	4.158	0.01966	
EC25	4.326	0.00584	
EC40	4.747	0.00027	
EC50	5.000	4.4E-05	
EC60	5.253	6.9E-06	
EC75	5.674	3.3E-07	
EC80	5.842	9.7E-08	
EC85	6.036	2.3E-08	
EC90	6.282	4E-09	
EC95	6.645	2.8E-10	
EC99	7.326	2E-12	



Reviewed by: JR

Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date:	4/5/2019	Test ID:	TN-19-225	Sample ID:	Wood
End Date:	4/12/2019	Lab ID:		Sample Type:	Effluent
Sample Date:		Protocol:	EPAF 91-EPA Freshwater	Test Species:	CD-Ceriodaphnia dubia
Comments:					

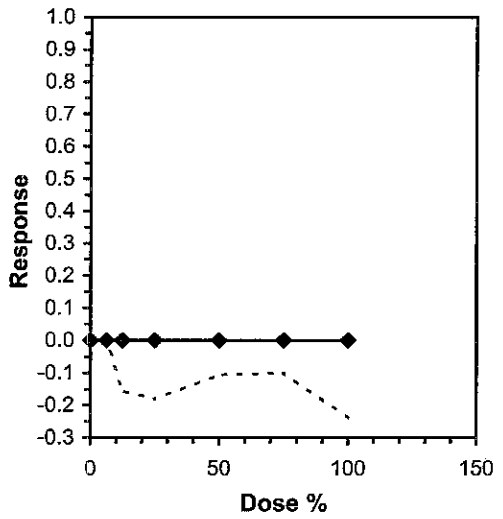
Conc-%	1	2	3	4	5	6	7	8	9	10	s.d.
Control	34.000	23.000	31.000	32.000	31.000	28.000	16.000	30.000	29.000	28.000	5.20256
6.25	35.000	36.000	32.000	32.000	26.000	33.000	29.000	32.000	0.000	27.000	10.4115
12.5	33.000	34.000	32.000	40.000	27.000	37.000	24.000	35.000	32.000	32.000	4.5753
25	31.000	22.000	32.000	36.000	35.000	34.000	35.000	37.000	35.000	36.000	4.3729
50	34.000	10.000	31.000	37.000	35.000	36.000	30.000	37.000	33.000	29.000	7.96939
75	34.000	0.000	32.000	34.000	36.000	35.000	37.000	34.000	30.000	38.000	11.1355
100	45.000	23.000	42.000	39.000	34.000	28.000	40.000	39.000	19.000	40.000	8.69802

			Transform: Untransformed					Rank	1-Tailed	Isotonic	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical	Mean	N-Mean
Control	28.200	1.0000	28.200	16.000	34.000	18.449	10			31.343	1.0000
6.25	28.200	1.0000	28.200	0.000	36.000	36.920	10	118.00	74.00	31.343	1.0000
12.5	32.600	1.1560	32.600	24.000	40.000	14.035	10	133.00	74.00	31.343	1.0000
25	33.300	1.1809	33.300	22.000	37.000	13.132	10	141.00	74.00	31.343	1.0000
50	31.200	1.1064	31.200	10.000	37.000	25.543	10	130.50	74.00	31.343	1.0000
75	31.000	1.0993	31.000	0.000	38.000	35.921	10	137.50	74.00	31.343	1.0000
100	34.900	1.2376	34.900	19.000	45.000	24.923	10	130.00	74.00	31.343	1.0000

Auxiliary Tests					Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates non-normal distribution (p <= 0.01)					1.9604	1.035	-2.3041	6.15937
Bartlett's Test indicates equal variances (p = 0.02)					14.6023	16.8119		
Hypothesis Test (1-tail, 0.05)	**NOEC**	**LOEC**	**ChV**	**TU**				
Steel's Many-One Rank Test	100	>100		1				

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Reviewed by: JR

Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date:	4/5/2019	Test ID:	TN-19-225	Sample ID:	Wood
End Date:	4/12/2019	Lab ID:		Sample Type:	Effluent
Sample Date:		Protocol:	EPAF 91-EPA Freshwater	Test Species:	CD-Ceriodaphnia dubia
Comments:					

Conc-%	1	2	3	4	5	6	7	8	9	10
Control	34.000	23.000	31.000	32.000	31.000	28.000	16.000	30.000	29.000	28.000
6.25	35.000	36.000	32.000	32.000	26.000	33.000	29.000	32.000	0.000	27.000
12.5	33.000	34.000	32.000	40.000	27.000	37.000	24.000	35.000	32.000	32.000
25	31.000	22.000	32.000	36.000	35.000	34.000	35.000	37.000	35.000	36.000
50	34.000	10.000	31.000	37.000	35.000	36.000	30.000	37.000	33.000	29.000
75	34.000	0.000	32.000	34.000	36.000	35.000	37.000	34.000	30.000	38.000
100	45.000	23.000	42.000	39.000	34.000	28.000	40.000	39.000	19.000	40.000

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
Control	28.200	1.0000	28.200	16.000	34.000	18.449	10			
6.25	28.200	1.0000	28.200	0.000	36.000	36.920	10	0.000	2.347	8.310
12.5	32.600	1.1560	32.600	24.000	40.000	14.035	10	-1.243	2.347	8.310
25	33.300	1.1809	33.300	22.000	37.000	13.132	10	-1.441	2.347	8.310
50	31.200	1.1064	31.200	10.000	37.000	25.543	10	-0.847	2.347	8.310
75	31.000	1.0993	31.000	0.000	38.000	35.921	10	-0.791	2.347	8.310
100	34.900	1.2376	34.900	19.000	45.000	24.923	10	-1.892	2.347	8.310

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates non-normal distribution (p <= 0.01)	1.9604	1.035	-2.3041	6.15937
Bartlett's Test indicates equal variances (p = 0.02)	14.6023	16.8119		

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	100	>100		1	8.30967	0.29467	63.2619	62.6698	0.42732	6, 63

FOR MSDp ONLY

ATTACHMENT II

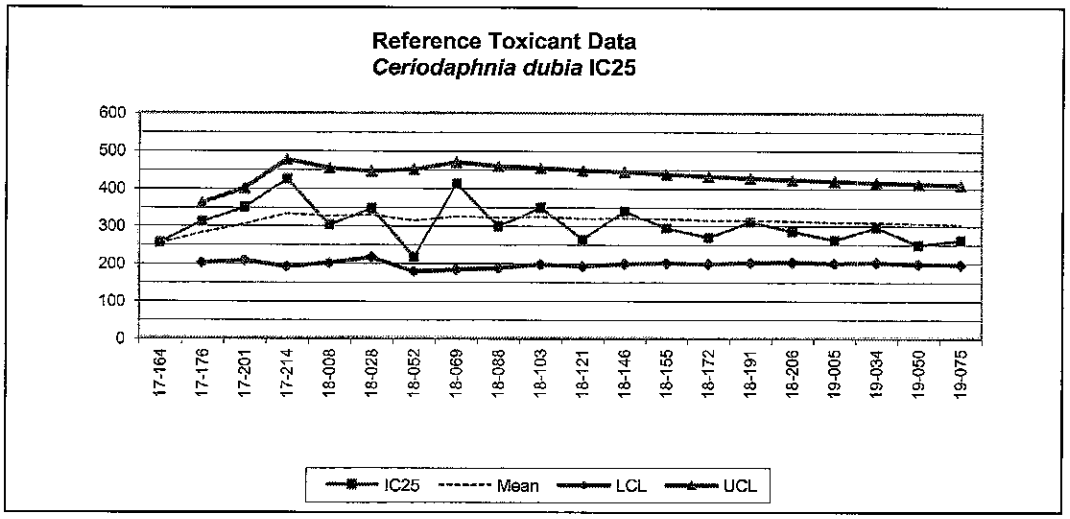
Reference Toxicant Test Data
(14 pages)

EA Engineering, Science, and Technology, Inc., PBC
Reference Toxicant Data - Potassium chloride (KCl)

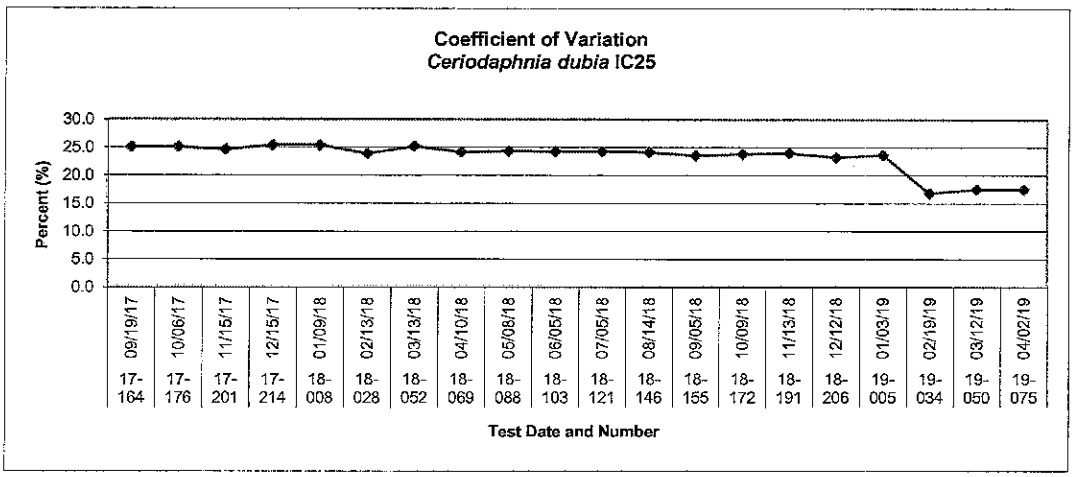
Ceriodaphnia dubia (water flea)

IC25 (mg/L KCL)

Test #	Test Date	Lot #	Vendor	IC25	Mean	Std. Dev.	LCL	UCL	CV
17-164	09/19/17	N/A	EA	254	254.0				25.0
17-176	10/06/17	N/A	EA	311	282.5	40.31	201.89	363.11	25.0
17-201	11/15/17	N/A	EA	350	305.0	48.28	208.44	401.56	24.5
17-214	12/15/17	N/A	EA	424	334.8	71.37	192.00	477.50	25.3
18-008	01/09/18	N/A	EA	302	328.2	63.52	201.15	455.25	25.3
18-028	02/13/18	N/A	EA	347	331.3	57.33	216.67	446.00	23.8
18-052	03/13/18	N/A	EA	216	314.9	68.11	178.63	451.08	25.1
18-069	04/10/18	N/A	EA	412	327.0	71.81	183.39	470.61	24.1
18-088	05/08/18	N/A	EA	298	323.8	67.86	188.05	459.50	24.3
18-103	06/05/18	N/A	EA	350	326.4	64.50	197.36	455.35	24.2
18-121	07/05/18	N/A	EA	263	320.6	64.10	192.40	448.80	24.2
18-146	08/14/18	N/A	EA	340	322.2	61.37	199.47	444.96	24.1
18-155	09/05/18	N/A	EA	294	320.0	59.28	201.48	438.60	23.5
18-172	10/09/18	N/A	EA	269	316.4	58.56	199.27	433.53	23.8
18-191	11/13/18	N/A	EA	310	316.0	56.46	203.08	428.90	23.9
18-206	12/12/18	N/A	EA	286	314.1	55.07	203.95	424.23	23.2
19-005	01/03/19	N/A	EA	262	311.0	54.80	201.43	420.62	23.6
19-034	02/19/19	N/A	EA	295	310.2	53.29	203.58	416.73	16.8
19-050	03/12/19	N/A	EA	249	306.9	53.65	199.63	414.24	17.5
19-075	04/02/19	N/A	EA	262	304.7	53.19	198.30	411.06	17.5



Coefficient of variatic	17.5 %



C. dubia CHRONIC TOXICITY TEST DATA SHEET

Test Method: EPA 821-R-02-013 (1002.0) Beginning Date: 4/2/19 Time: 0940

Project Number: 70005.15 Ending Date: 4/8/19 Time: 1010

Client: Lab

QC Test Number: RT-19-075 Adults Isolated Date: 4/1/19 Time: 1200

Test Material: 100 g/L KCl Neonates Pulled Date: 4/1/19 Time: 1930

Accession Number: SP9-020 Age of Neonates: <24 hrs Brood Size: 8+

Dilution Water: Mod Hard Source: EA

Accession Number: LD9-215 Culture Water Temperature: 23.9 °C

Test Container: 30 mL cup Test Volume: 15 mL Photoperiod: 16 *l*, 8 *d* Light Intensity: 50 - 100 fc

TEST SET-UP

TEST INITIATION

Date	Time	Initials	Activity
4/2/19	0920	LC	Dilutions Made
	0940		Test Vessels Filled
	1024	MW	Organisms Transferred
			Head Counts

CONCENTRATION SERIES

Test Concentration	Volume Test Material	Final Volume
Control	0 ml	200 ml
100 mg/l	0.2 ml	
200 mg/l	0.4 ml	
400 mg/l	0.8 ml	
800 mg/l	1.6 ml	
1600 mg/l	3.2 ml	

Comments:

INTERMEDIATE DILUTION PREPARATION AND FEEDING

DILUTION PREPARATION

Day	Date	Time	Initials	Sample / Diluent
0	4/2/19	0920	LC	SP9-020 / LD9-215
1	4/3/19	0938	MJ	SP9-020 / LD9-220
2	4/4/19	0847	MJ	SP9-020 / LD9-223
3	4/5/19	1043	JA	SP9-020 / LD9-228
4	4/6/19	0911	MW	SP9-020 / LD9-229
5	4/7/19	0925	JA	SP9-020 / LD9-233
6				

FEEDING

Food: YCT + *Raphidocelis subcapitata*

Day	Date	Time	Initials	Amount
0	4/2/19	1021	LC	200 µl
1	4/3/19	1052	LC	200 µl
2	4/4/19	1123	LC	200 µl
3	4/5/19	1123	JA	200 µl
4	4/6/19	1018	MW	200 µl
5	4/7/19	0955	JA	200 µl
6				

Ceriodaphnia dubia CHRONIC TOXICITY TEST

Client: Lab

QC Test Number: RT-19-075

First column=# neonates ; Second column = 0 (female), 1 (dead female), 2 (male), 3 (dead male), 9 (lost replicate)

Control

Day	1	2	3	4	5	6	7	8	9	10	Time/Initials
1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1036 LE
2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1113 LE
3	4 0	5 0	5 0	4 0	5 0	ϕ4 ϕ0	4 0	3 0	4 0	5 0	1116 JA (D) JA 4/5/19
4	0 0	0 0	0 0	0 0	0 0	11 P	0 0	0 0	0 0	0 0	1004 MW
5	9 0	6 0	9 0	7 0	10 0	0 0	9 0	10 0	9 0	10 0	0945 JA
6	11 0	13 0	10 0	9 0	15 0	11 P	13 0	16 0	12 0	16 0	1010 LE
7											
Total # Neonates:	24	24	24	20	30	26	26	29	25	31	

100 mg/l

Day	1	2	3	4	5	6	7	8	9	10	Time/Initials
1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	LE
2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	LE
3	5 0	4 0	3 0	3 0	6 0	4 0	3 0	2 0	5 0	6 0	JA
4	3 0	0 0	12 0	0 0	0 0	0 0	10 0	0 0	0 0	0 0	MW
5	8 0	10 0	0 0	10 0	10 0	8 0	0 0	9 0	8 0	10 0	JA
6	9 0	9 0	10 0	10 0	14 0	8 0	14 0	13 0	10 0	13 0	LE
7											
Total # Neonates:	25	19	25	19	30	20	27	24	23	29	

200 mg/l

Day	1	2	3	4	5	6	7	8	9	10	Time/Initials
1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	LE
2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	LE
3	4 0	3 0	5 0	4 0	4 0	4 0	4 0	4 0	3 0	3 0	JA
4	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	MW
5	12 0	8 0	8 0	8 0	7 0	8 0	10 0	8 0	9 0	11 0	JA
6	12 0	8 0	5 0	13 0	13 0	9 0	13 0	12 0	6 0	13 0	LE
7											
Total # Neonates:	28	19	18	25	24	21	27	24	18	27	

400 mg/l

Day	1	2	3	4	5	6	7	8	9	10	Time/Initials
1	0 0	0 (	0 1	0 0	0 0	0 0	0 0	0 1	0 1	0 0	LE
2	0 0	((	((	0 0	0 1	0 0	0 0	↓ ↓	↓ ↓	0 0	LE
3	5 0	↓ ↓	↓ ↓	4 0	↓ ↓	4 0	5 0			6 0	JA
4	0 0			0 0		7 0	9 0			0 0	MW
5	6 0			8 0		0 0	0 0			10 0	JA
6	8 0	↓	↓	9 0	↓	9 0	9 0	↓	↓	13 0	LE
7											
Total # Neonates:	19	0	0	21	0	20	23	0	0	29	

800 mg/l

Day	1	2	3	4	5	6	7	8	9	10	Time/Initials
1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	LE
2											
3											
4											
5											
6											
7	↓ ↓	↓ ↓	↓ ↓	↓ ↓	↓ ↓	↓ ↓	↓ ↓	↓ ↓	↓ ↓	↓ ↓	
Total # Neonates:	0	0	0	0	0	0	0	0	0	0	

1600 mg/l

Day	1	2	3	4	5	6	7	8	9	10	Time/Initials
1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	LE
2											
3											
4											
5											
6											
7	↓ ↓	↓ ↓	↓ ↓	↓ ↓	↓ ↓	↓ ↓	↓ ↓	↓ ↓	↓ ↓	↓ ↓	
Total # Neonates:	0	0	0	0	0	0	0	0	0	0	

Neonate totals checked (date, initials): 4/8/19 JR

TOXICITY TEST WATER QUALITY DATA SHEET - NEW SOLUTIONS

Project Number: 70005.15
Client: Lab
QC Test Number: RT-19-075

TEST ORGANISM
Common Name: Water flea
Scientific Name: *C. dubia*

Beginning Date: 4/2/19 Time: 0940
Ending Date: 4/8/19 Time: 1010

TARGET VALUES: Temp: 25±1°C pH: 6.0 - 9.0 DO: ≥4.0 mg/L Salinity: 0 ppt Photoperiod: 16 *l*, 8 *d* Light Intensity: 50 - 100 fc

Test Conc	Rep	Temperature (°C)							pH							Dissolved Oxygen (mg/L)							Conductivity (µS/cm) ~~Salinity (ppt)~~						
		0	1	2	3	4	5	6	0	1	2	3	4	5	6	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Control		24.0	24.4	24.0	24.4	24.5	24.0		7.9	8.0	8.0	7.9	8.1	8.1		8.5	8.0	8.7	8.8	8.2	8.4		333	344	344	338	325	325	
100 mg/l		24.0	24.4	24.0	24.5	23.5 24.0	24.0		7.9	8.0	8.0	7.9	8.0	8.0		8.6	8.2	8.7	8.9	8.9	8.6		565	517	504	555	480	587	
200 mg/l		24.0	24.6	24.0	24.0	24.0	24.0		8.0	8.0	8.0	8.0	8.0	8.1		8.6	8.3	8.6	8.9	9.0	8.6		712	684	708	808	739	724	
400 mg/l		24.0	24.6	24.1	24.0	24.3	24.0		8.0	8.1	8.0	8.0	8.0	8.1		8.7	8.4	8.7	9.0	8.8	8.6		1139	1072	1119	1168	1098	1086	
800 mg/l		24.0	—	—	—	—	—	—	8.0	—	—	—	—	—	—	8.8	—	—	—	—	—	—	1854	—	—	—	—	—	—	
1600 mg/l		24.0	—	—	—	—	—	—	8.0	—	—	—	—	—	—	8.8	—	—	—	—	—	—	3310	—	—	—	—	—	—	
Meter Number		680	678	678	680	678	680		680	678	678	680	678	680		680	678	678	680	678	680		680	678	678	680	678	680	
Time		0927	0958	1103	1050	0930	0931		0927	0958	1103	1050	0930	0931		0927	0958	1103	1050	0930	0931		0927	0958	1103	1050	0930	0931	
Initials		LE	LE	LE	JA	MW	JA		LE	LE	LE	JA	MW	JA		LE	LE	LE	JA	MW	JA		LE	LE	LE	JA	MW	JA	

MW 4/16/19

TOXICITY TEST WATER QUALITY DATA SHEET - OLD SOLUTIONS

Project Number: 70005.15 | TEST ORGANISM | Beginning Date: 4/2/19 Time: 0940

Client: Lab | Common Name: Water flea | Ending Date: 4/8/19 Time: 1010

QC Test Number: RT-19-075 | Scientific Name: *C. dubia*

TARGET VALUES Temp: 25±1°C pH: 6.0 - 9.0 DO: ≥4.0 mg/L Salinity: 0 ppt Photoperiod: 16 l, 8 d Light Intensity: 50 - 100 fc

Test Conc	Rep	Temperature (°C)							pH							Dissolved Oxygen (mg/L)							Conductivity (µS/cm) ~~Salinity (ppt)~~						
		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Control		24.1	24.4	24.2	24.5	25.0	25.4		8.0	8.1	7.9	8.3	8.1	8.2		8.3	8.2	8.4	8.3	8.3	8.3		361	378	363	370	363	349	
100 mg/l		24.5	24.4	24.3	24.6	25.0	25.6		8.0	8.1	7.9	8.1	8.1	8.1		8.4	8.4	8.4	8.2	8.3	8.1		589	572	533	615	499	615	
200 mg/l		24.6	24.4	24.3	24.6	24.9	25.7		8.1	8.1	7.9	8.1	8.1	8.1		8.3	8.5	8.4	8.3	8.3	8.2		751	742	744	856	826	757	
400 mg/l		24.6	24.4	24.4	24.6	24.9	25.7		8.1	8.1	7.9	8.1	8.1	8.1		8.3	8.4	8.4	8.3	8.4	8.1		1227	1198	1192	1276	1171	1140	
800 mg/l		24.7	–	–	–	–	–		8.1	–	–	–	–	–		8.3	–	–	–	–	–		2866	–	–	–	–	–	
1600 mg/l		24.7	–	–	–	–	–		8.1	–	–	–	–	–		8.3	–	–	–	–	–		2361	–	–	–	–	–	
Meter Number		680	679	680	679	680	679		680	679	680	679	680	679		680	679	680	679	680	679		680	679	680	679	680	679	
Time		1047	1117	1122	1015	0950	1016		1047	1117	1122	1015	0950	1016		1047	1117	1122	1015	0950	1016		1047	1117	1122	1015	0950	1016	
Initials		LC	LC	JA	MW	JA	LC		LC	LC	JA	MW	JA	LC		LC	LC	JA	MW	JA	LC		LC	LC	JA	MW	JA	LC	

TOXICOLOGY LABORATORY BENCH SHEET - TESTING LOCATION

Project Number: 70005.15

Client: LAB

QC Test Number: RT- 19-075

Day	Testing Location	Date	Time	Initials
0	SA	4/2/19	0940	LE
1	SA	4/3/19	1051	LE
2	SB	4/4/19	1118	LE
3	SB	4/5/19	1122	JA
4	SB	4/6/19	1016	MW
5	SB	4/7/19	0955	JA
6	SB	4/8/19	1020	LE
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

TOXICOLOGY LABORATORY BENCH SHEET

Project Number: 70005.15

Client: Lab

QC Test Number: RT- 19-075

Date/Time/Initials	Comments/Activity

RANDOMIZATION CHART
(*C. dubia* Chronic Toxicity Test)

Project Number: 70005.15

Client: Lab

QC Test Number: RT-19-075

(White Boards)

1	4	6	3	5	2
4	3	6	1	2	5
6	1	5	2	4	3
6	2	1	4	5	3
3	6	2	4	1	5
3	5	4	6	2	1
5	4	1	3	6	2
1	5	3	2	4	6
6	2	4	1	5	3
4	1	2	6	3	5

BLOCK LOADING CHART
(*C. dubia* Chronic Toxicity Test)

Project Number: 70005.15

Client: Lab

QC Test Number: RT- 19-075

Back of Board

CUP 1	Load 1	Load 2	Load 3	Load 4	Load 5	Load 6
CUP 2	Load 2	Load 3	Load 4	Load 5	Load 6	Load 1
CUP 3	Load 3	Load 4	Load 5	Load 6	Load 1	Load 2
CUP 4	Load 4	Load 5	Load 6	Load 1	Load 2	Load 3
CUP 5	Load 5	Load 6	Load 1	Load 2	Load 3	Load 4
CUP 6	Load 6	Load 1	Load 2	Load 3	Load 4	Load 5
CUP 7	Load 1	Load 2	Load 3	Load 4	Load 5	Load 6
CUP 8	Load 2	Load 3	Load 4	Load 5	Load 6	Load 1
CUP 9	Load 3	Load 4	Load 5	Load 6	Load 1	Load 2
CUP 10	Load 4	Load 5	Load 6	Load 1	Load 2	Load 3

Front of Board

TOXICOLOGY LABORATORY CORRECTION BENCH SHEET

Project Number: 70005.15

Client: Lab

QC Test Number: RT-19-075

Correction Explanations

(a) Technician Error-Mathematical

(b) Technician Error-Manual Data Recording

(c) Technician Error-Head Count Observation

(d) Technician Error-Overwrite

(e) Technician Error-Missing Data

(f) Technician Error-Lost Organism

(g) Technician Error-Transcription Error

(h) Technician Error-Other:

(i) Meter Malfunction

REFERENCE TOXICANT TEST STUDY PLAN

Project No.: N/A Test Article: Potassium chloride (KCl)

Client: Lab Proposed Start Date: _____

Test Species	Lot # (Source)	Temp (°C)	Test Duration	Endpt*	Test Vessel	Volume per Rep.	# Reps.	# Orgs. per Rep.
C. dubia **(water flea)**	**EA**	**25±1**	**3 Broods**	**M, R**	**30-ml cup**	**15 ml**	**10**	**1**

Organism Lot Receipt Date: N/A Age Upon Test: <24 hours (within 24-hr window)

Concentration Series: Control, 100, 200, 400, 800, 1600 mg/L KCl

Concentration of Stock Solution: 100 g/L KCl

Dilution Water: Mod Hard

Renewal Frequency: Daily

Routine water quality (CIRCLE ONE): [A] B C X (Other - Explain)

Feed: No ____ Yes ✓ No. Times per day 1x/day YCT & algae

Save organisms: No ✓ Yes

Modifications to Protocol/Comments: _____

* G = Growth
R = Reproduction
M = Mortality
O = Other

075

Ceriodaphnia Survival and Reproduction Test-6 Day Survival

Start Date:	4/2/2019	Test ID:	TN-19-075	Sample ID:	100 g/L KCl
End Date:	4/8/2019	Lab ID:	SP9-020	Sample Type:	Reference Toxicant
Sample Date:		Protocol:	EPAF 91-EPA Freshwater	Test Species:	CD-Ceriodaphnia dubia
Comments:					

Conc-mg/L	1	2	3	4	5	6	7	8	9	10
Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
200	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
400	1.0000	0.0000	0.0000	1.0000	0.0000	1.0000	1.0000	0.0000	0.0000	1.0000
800	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1600	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Conc-mg/L	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical
Control	1.0000	1.0000	0	10	10	10		
100	1.0000	1.0000	0	10	10	10	1.0000	0.0500
200	1.0000	1.0000	0	10	10	10	1.0000	0.0500
*400	0.5000	0.5000	5	5	10	10	0.0163	0.0500
800	0.0000	0.0000	10	0	10	10		
1600	0.0000	0.0000	10	0	10	10		

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	200	400	282.843	

Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date:	4/2/2019	Test ID:	TN-19-075	Sample ID:	100 g/L KCl
End Date:	4/8/2019	Lab ID:	SP9-020	Sample Type:	Reference Toxicant
Sample Date:		Protocol:	EPAF 91-EPA Freshwater	Test Species:	CD-Ceriodaphnia dubia
Comments:					

Conc-mg/L	1	2	3	4	5	6	7	8	9	10	S.D.
Control	24.000	24.000	24.000	20.000	30.000	26.000	26.000	29.000	25.000	31.000	3.31495
100	25.000	19.000	25.000	19.000	30.000	20.000	27.000	24.000	23.000	29.000	3.92853
200	28.000	19.000	18.000	25.000	24.000	21.000	27.000	24.000	18.000	27.000	3.84274
400	19.000	0.000	0.000	21.000	0.000	20.000	23.000	0.000	0.000	29.000	12.0996
800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0
1600	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

			Transform: Untransformed					1-Tailed			Isotonic	
Conc-mg/L	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
Control	25.900	1.0000	25.900	20.000	31.000	12.799	10				25.900	1.0000
100	24.100	0.9305	24.100	19.000	30.000	16.301	10	1.086	1.999	3.312	24.100	0.9305
200	23.100	0.8919	23.100	18.000	28.000	16.635	10	1.690	1.999	3.312	23.100	0.8919
400	11.200	0.4324	11.200	0.000	29.000	108.032	10				11.200	0.4324
800	0.000	0.0000	0.000	0.000	0.000	0.000	10				0.000	0.0000
1600	0.000	0.0000	0.000	0.000	0.000	0.000	10				0.000	0.0000

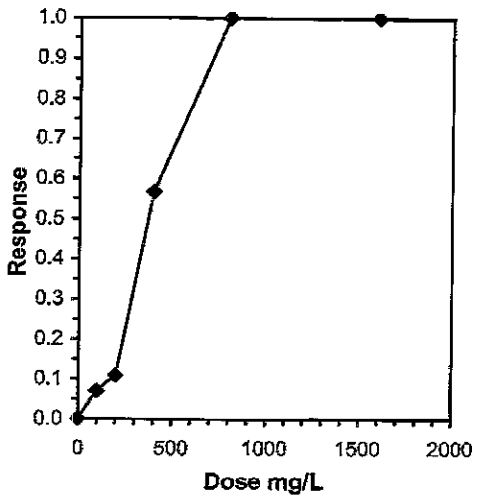
Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93995	0.9	-0.0654	-1.1284
Bartlett's Test indicates equal variances (p = 0.87)	0.28201	9.21034		

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	200	>200			3.31233	0.12789	20.1333	13.7296	0.24855	2, 27

Linear Interpolation (200 Resamples)

Point	mg/L	SD	95% CL		Skew
IC05*	71.94	57.53	32.24	214.82	0.5597
IC10	179.00	53.20	64.49	235.50	-0.5214
IC15	218.24	38.97	96.73	273.83	-1.0088
IC20	240.00	31.09	201.57	326.89	1.6071
IC25	261.76	36.37	224.24	374.13	1.8266
IC40	327.06	48.97	276.35	469.40	1.1986
IC50	370.59	58.50	306.24	524.50	0.8640

* Indicates IC estimate less than the lowest concentration



ATTACHMENT III

Report Quality Assurance Record
(2 pages)

REPORT QUALITY ASSURANCE RECORD

Client: Wood

Project Number: 70005.15

Author: Rachael Brooks

EA Report Number: 8001

REPORT CHECKLIST

QA/QC ITEM	REVIEWER	DATE
1. Samples collected, transported, and received according to study plan requirements.	RB	4/15/19
2. Samples prepared and processed according to study plan requirements.	RB	4/15/19
3. Data collected using calibrated instruments and equipment.	RB	4/15/19
4. Calculations checked:		
- Hand calculations checked	RB	4/15/19
- Documented and verified statistical procedure used.	RB	4/15/19
5. Data input/statistical analyses complete and correct.	JM Redfern	4/17/19
6. Reported results and facts checked against original sources.	JM Redfern	4/17/19
7. Data presented in figures and tables correct and in agreement with text.	JM Redfern	4/17/19
8. Results reviewed for compliance with study plan requirements.	RL	4/15/19

	AUTHOR	DATE
9. Commentary reviewed and resolved.	RB	4/18/19

10. All study plan and quality assurance/control requirements have been met and the report is approved:

PROJECT MANAGER		4/17/19 DATE
QUALITY CONTROL OFFICER	JM Redfern	4/17/19 DATE
SENIOR TECHNICAL OFFICER		4/17/19 DATE

TOXICOLOGICAL EVALUATION
OF A SURFACE WATER SAMPLE

Honeywell C-Lab
Groton, Massachusetts
Wood Project Number 361718742

***Ceriodaphnia dubia* Survival and Reproduction Evaluation**

Prepared For:

Wood PLC
271 Mill Road, 3rd Floor
Chelmsford, Massachusetts 01824

Prepared By:

Enthalpy Analytical LLC
One Lafayette Road
Hampton, New Hampshire 03842

Study Number: 31739
Report Issue Date: May 7, 2019
Assay Date: April 2019

TABLE OF CONTENTS

1.0 INTRODUCTION 3

2.0 MATERIALS AND METHODS 3

2.1 General Methods 3
2.2 Test Species 3
2.3 Test Samples and Laboratory Control Water 3
2.4 *Ceriodaphnia dubia* Survival and Reproduction Evaluation 4
2.5 Data Analysis 4
2.6 Quality Control 4

3.0 RESULTS AND DISCUSSION 4

3.1 Laboratory Control Performance 4
3.2 Protocol Deviations 4
3.3 Results and Summary 5

4.0 REFERENCES 5

LIST OF TABLES

Table 1. Summary of Sample Collection and Receipt Information 6
Table 2. Summary of Reference Toxicant Data 6
Table 3. Summary of Laboratory Control and Assay Acceptability Criteria 7
Table 4. Day 8 Survival and Reproduction Data 8
Table 5. New Water Quality Data 9
Table 6. Old Water Quality Data 10
Table 7. Support Chemistry Data 11

APPENDIX A: RAW DATA & STATISTICAL SUPPORT 12

TOXICOLOGICAL EVALUATION
OF SURFACE WATER SAMPLES

Honeywell C-Lab
Groton, Massachusetts
Wood Project Number 361718742

Ceriodaphnia dubia Survival and Reproduction Evaluation

1.0 INTRODUCTION

This report presents the results of toxicity tests completed on a surface water sample collected in support of the ecological risk characterization for the Honeywell C-Lab Site in Groton, Massachusetts. Samples were provided by Wood PLC, Chelmsford, Massachusetts. Testing was based on programs and protocols developed by the US EPA (2002), and involved conducting a chronic exposure assay with the freshwater daphnid, *Ceriodaphnia dubia*. Testing was performed at Enthalpy Analytical, LLC (Enthalpy), Hampton, New Hampshire in accordance with the provisions of TNI Standards (2009).

Toxicity tests expose groups of organisms to environmental samples, a laboratory control and/or field reference sites for a specified period to assess potential impacts on a variety of endpoints, such as survival, growth or reproduction. The toxicity tests for this study involved preparing a series of test concentrations by diluting a surface water sample with laboratory control water. Groups of test organisms are exposed to each test concentration and a control in chronic toxicity tests for a specified period to measure sublethal effects, exposing test organisms to samples during a sensitive period in the life cycle. Daphnid chronic tests measure survival and juvenile production. Using Analysis of Variance techniques to evaluate the data, it is possible to determine the lowest tested concentration that had an effect (C-LOEC) and the highest tested concentration where no effect (C-NOEC) was observed. An Inhibition Concentration (IC) may be calculated by linear interpolation to estimate the concentration that would have an effect on 25% of the population (IC-25) and 50% of the population (IC-50). The IC-25 is also used to approximate the C-NOEC (US EPA 2000).

2.0 MATERIALS AND METHODS

2.1 General Methods

Toxicological and analytical protocols used in this program follow procedures primarily designed to provide standard approaches for the evaluation of toxicological effects of discharges on aquatic organisms as outlined in *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (US EPA 2002). See Section 4.0 for a list of references.

2.2 Test Species

C. dubia were maintained in laboratory water at 25±1°C with a photoperiod of 16:8 hours light:dark. Cultures are fed daily with a yeast/trout chow/Cerophyll or alfalfa leaves (YTC) mixture supplemented with *Pseudokirchneriella subcapitata* (algae) (US EPA 2002). Adults on a brood board were isolated 24 hours prior to test start and allowed to reproduce for 8 hours.

2.3 Test Samples and Laboratory Control Water

Surface water samples collected for the project were received at Enthalpy under chain of custody in 1 gallon cubitainers. Upon arrival at the laboratory, all samples received an internal sample control number and were logged into the Laboratory Information Management System (LIMS). Samples were placed in a secure refrigerator and stored at a temperature of 0-6°C as per 40 CFR §136.3. Sample identification, collection and receipt information is summarized in Table 1.

Laboratory water was synthetic reconstituted water prepared at Enthalpy according to protocol (US EPA 2002). This water has been used to successfully culture freshwater organisms since 1992. Site-specific reconstituted (SSR) laboratory water was used as the diluent and primary control, with

Moderately Soft Reconstituted (MSR) laboratory water used as a secondary control.

2.4 *Ceriodaphnia dubia* Survival and Reproduction Evaluation

The chronic exposure bioassay was conducted according to protocol (US EPA 2002), which called for the daily renewal of test solutions. Dissolved oxygen, pH, specific conductance, and temperature were measured in each new test solution.

Test chambers for the daphnid assay were 30 mL portion cups containing approximately 20 mL of test solution in each of 12 replicates with 1 organism/replicate. Replicates were not randomized during testing; rather, organisms were added at test initiation by blocking by known parentage. Survival and juvenile production were monitored daily. Daphnids were each fed 200 μL of a mixture of YTC and algae after daily renewals.

2.5 Data Analysis

Statistical analysis of chronic exposure data was completed using CETIS™ v1.9.3.0, Comprehensive Environmental Toxicity Information System, software. The program computes chronic exposure endpoints based on US EPA decision tree guidelines specified in individual test methods. If survival in the highest test concentration is >50%, the LC-50 for survival is obtained by direct observation of the raw data. For chronic exposure endpoints statistical significance was accepted at $\propto = 0.05$. For statistical calculations of *C. dubia* juvenile production, data from only the first three broods are used.

Replicate "I" of both controls and all test concentrations were identified as male and were excluded from the statistical analysis for reproduction and calculation of brood production, but retained for the statistical analysis for survival.

2.6 Quality Control

As part of the laboratory quality control program, reference toxicant evaluations are completed on a regular basis for each test species. These results, presented in Table 2, provide regular laboratory performance evaluation through the comparison of historic data sets.

3.0 RESULTS AND DISCUSSION

Table 3 provides a summary of laboratory control and assay acceptability criteria. Table 4 presents a summary of the day 8 survival and reproduction data. Tables 5 and 6 summarize the new water quality and old water quality data, respectively. Table 7 presents the support chemistry data.

3.1 Laboratory Control Performance

At the end of the 8 day exposure period, mean survival in the SSR laboratory control water was 100% with a coefficient of variation (CV) of 0%. Daphnids in the SSR laboratory control water had a mean reproduction of 38.8 juveniles/female at the end of the 8 day exposure period, with a CV of 4%. Minimum test acceptability criteria require 80% control survival, mean production of 15 juveniles/female, production of 3 broods by at least 60% of control females, and the MSDp for reproduction to be <47% for *Ceriodaphnia dubia* (US EPA 2002). The MSDp is a measurement of statistical variability between replicates within a data set. Achievement of these criteria indicates that healthy test organisms were used and that the dilution water had no adverse effects on the test organisms. Table 3 provides a summary of assay acceptability criteria and control achievement. See Section 3.3 for a discussion of the low MSDp.

During daily water quality observations, the temperatures recorded for the assay ranged from 20 to 24°C. Test acceptability criteria requires temperature be maintained at 25±1°C.

3.2 Protocol Deviations

Review of data collected as part of the biological evaluation documented the following deviations from either the method protocol or Enthalpy's Standard Operating Procedures:

As previously mentioned, the protocol requires that the assays be conducted at 25±1°C for the *C. dubia* assay. Although the assay was maintained in incubators set at their target temperatures, some temperatures recorded throughout the assay were lower due to the ambient laboratory temperature at the time water quality measurements were taken. Daphnids can tolerate temperatures within this range as demonstrated by the assay results, and it is the opinion of Enthalpy's technical director that this deviation had no adverse impact on the outcome of the assay.

3.3 Results and Summary

This program utilized protocols developed by the US EPA to assess the potential toxicological impacts that exposure to surface water collected near the C-Lab Facility would have on freshwater invertebrates. Table 4 summarizes survival and reproduction data and the calculated endpoints. Table 5 and 6 present new and old water quality measurements collected during the assay.

The results of the statistical analyses show that there were no significant effects on daphnid survival from exposure to the 100% site surface water sample, as demonstrated by 100% survival observed in all test concentrations and the calculated C-NOEC for survival of 100%. Control responses (laboratory SSR and MSR) met acceptability criteria for survival

The daphnid reproduction data demonstrated a non-standard dose response curve with significant effects observed in all but the 12.5% test concentration, resulting in a calculated C-NOEC of <6.25%. Control responses (laboratory SSR and MSR) met acceptability criteria for reproduction and brood production, however the test variability (MSDp) for reproduction was calculated to be lower than the acceptable range for this species at 6.5%, indicating there was little variability within the data set and a higher likelihood that a significant response would be identified. In this scenario, the relative percent difference (RPD) between each treatment mean and the diluent mean is used as a measure of the significance of the endpoint being assessed, with the RPDs that exceed the lower MSDp bound considered significant (USEPA, 2000a, 2000b). In this case, the RPD for only the 100% concentration is higher than the lower MSDp bound for *C. dubia* reproduction (13%), indicating that only the 100% test concentration would be considered significantly higher than the SSR laboratory diluents control. Computation of the IC-25 for reproduction resulted in a value of >100%. Based on the weight of evidence, the calculated C-NOEC of <6.25% is considered unreliable and the data support a C-NOEC of 75%.

These data are considered valid, and demonstrate that the surface water had no adverse effects on invertebrate survival, however there were effects on invertebrate reproduction from exposure to >75% of the surface water concentration.

4.0 REFERENCES

40 CFR §136.3. *Code of Federal Regulations* (CFR), Protection of the Environment (Title 40), Guidelines Establishing Test Procedures for the Analysis of Pollutants (Part 136), Identification of Test Procedures (sub-part 3), Table II-Required Containers, Preservation Techniques, and Holding Times.

The NELAC Institute (TNI). 2009. *Environmental Laboratory Sector, Volume 1: Management and Technical Requirements for Laboratories Performing Environmental Analysis (TNI Standard)*. EL-V1-2009.

US EPA. 2000a. *Understanding and Accounting for Method Variability in WET Applications Under the NPDES Program*. EPA-833-R-00-003. June 30, 2000.

US EPA. 2000b. *Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)*. EPA 821-B-00-004.

US EPA. 2002. *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*. Fourth Edition. EPA-821-R-02-013.

US EPA Region I. 2013. *Freshwater Chronic Toxicity Test Procedure and Protocol - US EPA Region I*. US EPA Region I Office, Boston, Massachusetts. March 2013.

Table 1. Sample Collection and Receipt Information. *Ceriodaphnia dubia* Survival and Reproduction Evaluation. C-Lab. Groton, Massachusetts. April 2019.

Field ID	Enthalpy Code	Analysis	Sample Collected Date	Sample Collected Time	Sample Received Date	Sample Received Time
C0404019-CSW3	31739-001	7d *C. dubia*	04/04/19	0930	04/04/19	1130
C0404019-CSW3	31739-100	Alkalinity	04/04/19	1340	04/04/19	1130
C0404019-CSW3	31739-101	Hardness	04/04/19	1340	04/04/19	1130

Table 2. Reference Toxicant Data. *Ceriodaphnia dubia* Survival and Reproduction Evaluation. C-Lab. Groton, Massachusetts. April 2019.

Date	Endpoint		Value	Historic Mean/ Central Tendency	Acceptable Range	Reference Toxicant
C. dubia						
04/23/19	Survival:	LC-50	28.5	22.8	3.3 - 42.3	SDS (mg/L)
03/19/19	Survival	C-NOEC	30.0	30.0	15.0 - 60.0	Copper (µg/L)
03/19/19	Reproduction	C-NOEC	15.0	30.0	15.0 - 60.0	Copper (µg/L)
03/19/19	Reproduction	MSDp	18.7	29.8	11.4 - 48.3	Copper (µg/L)

Means and Acceptable Ranges based on the most recent 20 reference toxicant assays

Table 3. Laboratory Control and Assay Acceptability Criteria. *Ceriodaphnia dubia* Survival and Reproduction Evaluation. C-Lab. Groton, Massachusetts. April 2019.

Endpoint / Measurement	Protocol Criteria	Unit	SSR Lab Control
Mean Survival	Laboratory Control ≥ 80%	%	100%
		Protocol Met	Yes
Reproduction	Laboratory Control ≥ 15 juveniles/female	juv/female	38.8
		Protocol Met	Yes
Brood Production	Laboratory Control ≥ 60%	%	100%
		Protocol Met	Yes
MSDp	Laboratory Control variability 13-47%	%	6.5%
		Protocol Met	No [a]
New Water Quality Temperature	Minimum: 24°C	Daily	21
	Maximum: 26°C	Daily	24
		Protocol Met	No [b]
Old Water Quality Temperature	Minimum: 24°C	Daily	20
	Maximum: 26°C	Daily	23
		Protocol Met	No [b]

Notes:
[a] The test variability falls outside the ideal range for test acceptability, however the low variability suggests that the assay data had very little variability and that the statistical analysis may be more likely to identify a "Significantly Different" response than if the assay had greater variability and a higher MSDp. These data are considered valid. See Section 3.3 for a discussion.
[b] The temperature readings were taken at the bench top and as such are influenced by ambient laboratory temperatures, and therefore do not necessarily reflect the incubator temperatures (set for 25°C). See Section 3.2 for a discussion.

Table 4. Day 8 Survival and Reproduction Data. *Ceriodaphnia dubia* Survival and Reproduction Evaluation. C-Lab. Groton, Massachusetts. April 2019.

Effluent Conc.	Mean Percent Survival		Mean Reproduction	% Females Producing 3		Is There a Significant Difference Based on	
	Day 2	Day 8	(Juv/Female)	Broods	RPD [a]	Survival (%)	Reproduction
LAB-SSR	100%	100%	38.8	100%	-	-	-
LAB-MSR	100%	100%	36.7	100%	5%	-	-
6.25%	100%	100%	34.1	100%	12%	No	Yes [b]
12.5%	100%	100%	36.6	100%	6%	No	No
25%	100%	100%	35.2	100%	9%	No	Yes [b]
50%	100%	100%	35.1	100%	9%	No	Yes [b]
75%	100%	100%	34.3	100%	11%	No	Yes [b]
100%	100%	100%	31.2	100%	19% [b]	No	Yes [b]
	LC-50=<100%		MSDp=6.5% [b]			NOEC=100%	NOEC=<6.25% [b]
						EC-50=>100%	IC-50=>100%
						EC-25=>100%	IC-25=>100%

COMMENTS:

[a] Relative Percent Difference (RPD) is expressed as percent effect on the CETIS Summary Report.

[b] The test variability falls below the ideal range for test acceptability. The assay data had very little variability and that the statistical analysis may be more likely to identify a "Significantly Different" response than if the assay had greater variability and a higher MSDp. Review of the data supports a C-NOEC of 75%. See Section 3.3 for a discussion.

Table 5. New Water Quality Data. *Ceriodaphnia dubia* Survival and Reproduction Evaluation. C-Lab. Groton, Massachusetts. April 2019.

Field ID	Day	Temperature (°C)	Dissolved Oxygen (mg/L)	pH (SU)	Specific Conductivity (μmhos/cm)
LAB-SSR	0	24	8.5	7.43	100
LAB-MSR	0	23	8.7	7.69	183
6.25%	0	23	8.6	7.51	112
12.5%	0	23	8.6	7.50	125
25%	0	24	8.7	7.46	152
50%	0	24	8.8	7.40	204
75%	0	24	9.0	7.37	258
100%	0	24	9.3	7.37	311
LAB-SSR	7	23	8.8	7.57	101
LAB-MSR	7	23	8.7	7.76	191
6.25%	7	23	8.6	7.69	113
12.5%	7	23	8.6	7.54	126
25%	7	23	8.6	7.52	150
50%	7	23	8.8	7.53	201
75%	7	23	8.8	7.60	252
100%	7	23	9.0	7.63	304

Additional water quality and analytical support data are provided in Appendix A.

Table 6. Old Water Quality Data. *Ceriodaphnia dubia* Survival and Reproduction Evaluation. C-Lab. Groton, Massachusetts. April 2019.

Field ID	Day	Temperature (°C)	Dissolved Oxygen (mg/L)	pH (SU)	Specific Conductivity (μmhos/cm)
LAB-SSR	1	21	8.5	7.43	104
LAB-MSR	1	21	8.8	7.78	190
6.25%	1	21	8.9	7.81	118
12.5%	1	21	8.9	7.84	129
25%	1	21	9.0	7.87	154
50%	1	21	9.1	7.89	202
75%	1	21	9.1	8.15	252
100%	1	21	9.2	8.32	304
LAB-SSR	8	23	8.9	7.89	115
LAB-MSR	8	23	8.9	8.04	205
6.25%	8	23	8.8	7.83	123
12.5%	8	23	8.8	7.80	135
25%	8	22	8.8	7.85	159
50%	8	22	8.7	7.96	210
75%	8	22	8.8	8.11	262
100%	8	22	8.8	8.21	316

Additional water quality and analytical support data are provided in Appendix A.

Table 7. Support Chemistry Data. *Ceriodaphnia dubia* Survival and Reproduction Evaluation. C-Lab. Groton, Massachusetts. April 2019.

PARAMETER	UNITS	C040419-CSW3	SSR Laboratory Control
Alkalinity	mg/L	60	19 [a]
Hardness	mg/L	74	27
Total Solids	mg/L	-	82
Total Suspended Solids	mg/L	-	<1
Ammonia	mg/L	-	<0.1
Total Organic Carbon	mg/L	-	1 [b]
Aluminum, total	mg/L	-	<0.02
Cadmium, total	mg/L	-	<0.0001
Copper, total	mg/L	-	0.0011
Lead, total	mg/L	-	<0.0002
Nickel, total	mg/L	-	<0.001
Selenium, total	mg/L	-	0.0025
Zinc, total	mg/L	-	0.0029

Notes:
Additional water quality and analytical support data are provided in Appendix A.
[a] Analyte found in blank at 3.2 mg/L. Result may be used with due consideration.
[b] TOC analyzed by Alpha Analytical, Westborough, Massachusetts.

APPENDIX A

RAW DATA AND STATISTICAL SUPPORT

Contents	Number of Pages
Chains of Custody and Sample Receipt Record	2
C. dubia Blocking by Parentage Data Sheet	1
Preparation of Dilutions	1
C. dubia Chronic Survival and Reproduction Bench Sheets	2
C. dubia Survival and Reproduction Statistics	12
Daily Water Quality Data Sheets	2
Record of Meters Used	1
Support Chemistries	17
Assay Review Checklist	1
Total Appendix Pages	39

ESI
EnviroSystems, Inc.
1 Lafayette Road
P.O. Box 778
Hampton, N.H. 03843
Voice: 603-926-3345
FAX: 603-926-3521

ESI Job No: 31739

CHAIN OF CUSTODY DOCUMENTATION

Client: Wood E+I	Contact: Tony Rodolakis	Project Name: Honeywell C-lab	Page 1 of 1
Report to: Tony Rodolakis	Address: 271 M.11 Rd.	Project Number: 361718742	
Invoice to: address above	Address: Chelmsford, MA 01824	Project Manager: Kerry Tull	
Voice: 3617187421.530001.530001	Fax: ———	email: tony.rodolakis@woodplc.com	P.O. No: Quote No:

Protocol: RCRA SDWA NPDES USCOE Other

Lab Number (assigned by lab)	Your Field ID: (must agree with container)	Date Sampled	Time Sampled	Sampled By	Grab or comp-osit (G/C)	Container Size (ml.)	Container Type (P/G/T)	Field Preser-vation	Matrix S=Solid W=Water	Filter N=Not needed F=Done in field L=Lab to do	Analyses Requested\ Special Instructions:
001	C040419-CSW3	4/4/19	930	MAM	G	~1gal *	P	NA	W	N	7day Ceriodaphnia
100 (03 LAG 04/5)	Effluent Start C040419-CSW3	04/04/19	1340	LAG	G	60	P	NA	W	N	ALK dubia test for Survival
101	Effluent Start C040419-CSW3	〃	〃	〃	〃	〃	〃	HNO_3	〃	〃	HARD and growth

Relinquished By: [signature] Date: 4/4/2019 Time: 11:30 Received By: [signature] Date: 4/4/19 Time: 1130

Relinquished By: Date: Time: Received at Lab By: Date: Time:

Comments: * 3 aliquots rec'd - VM 4/4/19

Sample Delivery Group No: Page of

SAMPLE RECEIPT RECORD
FOR CHRONIC TOXICITY EVALUATIONS

STUDY #: 31739	CLIENT: Wood

SAMPLE RECEIPT INFORMATION

	Start Sample	First Renewal	Second Renewal
Sample Receipt Date & Time:	04/04/19 1130		
Received By:	KC		
Delivered Via:	Fed Ex UPS (Client) Courier ESI	Fed Ex UPS Client Courier ESI	Fed Ex UPS Client Courier ESI
Logged Into Lab By:	MW		
Date &Time Logged In:	04/04/19 1150		

SAMPLE CONDITION INFORMATION

Chain of Custody?	(Yes) or No	Yes or No	Yes or No
Chain of Custody Signed?	(Yes) or No	Yes or No	Yes or No
Chain of Custody Complete?	(Yes) or No	Yes or No	Yes or No
Sample Date?	(Yes) or No	Yes or No	Yes or No
Sample Time?	(Yes) or No	Yes or No	Yes or No
Sample Type?	(Yes) or No	Yes or No	Yes or No
Custody Seal in Place?	Yes (NA) No	Yes NA No	Yes NA No
Shipping Container Intact?	(Yes) or No	Yes or No	Yes or No
Temp Blank Temperature:	5.8°C		
DOES CLIENT NEED NOTIFICATION OF TEMP?	Yes or (No)	Yes or No	Yes or No
Sample Arrived on Ice?	(Yes) or No	Yes or No	Yes or No
COMMENTS:	See COC	1st renewal not received.	

Q:\Forms\Lab Forms\Sampling & Receipt\Sample Receipt Record - Chronic rev0 021215.wpd

Ceriodaphnia dubia - Blocking by Parentage Tracking Sheet

ESI #: 31739

CLIENT: Wood

START DATE: 04/05/19

START TIME: 1600

INITIAL: MW

COLUMN added to	*C. dubia* ADULT USED board #	cup#
A	MSR 938	1A
B	MSR 939	1B
C	MSR 940	2G
D		2H
E		2J
F		2A
G		2C
H		2D
I		2E
J		2F

P:\General Projects\FORMS\LABFORMS\Ceriodaphnia dubia Blocking by Parentage 2013.wpd

PREPARATION of DILUTIONS

STUDY: 31739 | CLIENT: Wood

SPECIES: *C. dubia* | TEST: chronic renewal

START Diluent: **SSR** **Concentration**	Day: 0 E_0 = 25.5 °C Sample: E_0 Vol. Eff.	Final Vol	Day: 1 E_0 = 26.0°C Sample: E_0 Vol. Eff.	Final Vol	Day: 2 E_0 = 26.5°C Sample: E_0 Vol. Eff.	Final Vol.
SSR	0	200	0	200	0	200
MSR	0	↓	0	↓	0	↓
6.25%	12.5		12.5		12.5	
12.5%	25		25		25	
25%	50		50		50	
50%	100		100		100	
75%	150		150		150	
100%	200	↓	200	↓	200	↓

Day	Date	Time	Init
0	04/05/19	1530	GRS
1	04/06	0900	MW
2	04/07	0935	MT
3	04/08	1045 ~~1040~~	MT
4	04/09/19	1100 @1104/08	BG
5	04/10/19	0825	LAG
6	04/11	0730	MT
7	04/12	0805	LAG

1st Renewal Diluent: **SSR** **Concentration**	Day: 3 E_0 = 26.0°C Sample: E_0 Vol. Eff.	Final Vol	Day: 4 E_0 = 24.3°C Sample: E_0 Vol. Eff.	Final Vol	Day: 5 E_0 = 24.9°C Sample: E_0 Vol. Eff.	Final Vol.
SSR	0	200	0	200	0	200
MSR	0	↓	0	↓	0	↓
6.25%	12.5		12.5		12.5	
12.5%	25		25		25	
25%	50		50		50	
50%	100		100		100	
75%	150		150		150	
100%	200	↓	200	↓	200	↓

SSR MSR

Lab Water ID: ~~04/05~~

Day 0: 31732 | 31711

Day 1: 31732 | 31711, M1213

Day 2: ~~31732~~ | 31711, W-1213

Day 3: 31732 | 31711, W-1213

Day 4: 31732 | 31711

Day 5: 31732 | 31711

Day 6: 31732 | 31711

Day 7: 31732 | 31711

2nd Renewal Diluent: **SSR** **Concentration**	Day: 6 E_0 = 23.7°C Sample: E_0 Vol. Eff.	Final Vol.	Day: 7 E_0 = 24.0°C Sample: E_0 Vol. Eff.	Final Vol	Day: Sample: Vol. Eff.	Final Vol.	Day: Sample Vol. Eff	Final Vol.
SSR	0	200	0	200				
MSR	0	↓	0	↓				
6.25%	12.5		12.5					
12.5%	25		25					
25%	50		50					
50%	100		100					
75%	150		150					
100%	200	↓	200	↓				

Ceriodaphnia dubia CHRONIC REPRODUCTION ASSAY

1 rep excluded from reproduction stats + brood production calculations

STUDY # 31739

CLIENT: Wood

SAMPLE: Surface Water

DILUENT: SSR

Cerio Data
source: MSR ☒
MHR ☐
collected:
previous pm ☐
test day am ☒

DAY 0 04/05/19
TIME: 1600
FED: MW

DAY 1 04/06/19
TIME: 1110
FED: MW

DAY 2 04/07/19
TIME: 1040
FED: MT

DAY 3 04/08/19
TIME: 1305
FED: MT

DAY 4 04/09/19
TIME: 1230
FED: MT

DAY 5 04/10/19
TIME: 1145
FED: MT

DAY 6 04/11/19
TIME: 1020
FED: BG

DAY 7 04/12/19
TIME: 1105
FED: BG

DAY 8 04/13/19
TIME: 1430
FED: MT

LEGEND:

+ = LIVE

- = DEAD

♂ = MALE

M = MISSING

Calculations:
Initials: VF
Date: 4/18/19

CONC.	DAY	A	B	C	D	E	F	G	H	I	J	SUM	SURV.	
SSR	0	+	+	+	+	+	+	+	+	+	+	0	10	
	1	+	+	+	+	+	+	+	+	+	+	0	10	
	2	+	+	+	+	+	+	+	+	+	+	0	10	
	3	+	+	+	+	+	+	+	+	+	+	0	10	
	4	6	6	6	6	7	7	+	4	+	6	48	10	
	5	+	+	+	+	+	+	6	2	+	+	8	10	100
	6	10	12	13	12	13	11	13	10	♂+	14	108	10	
	7	+	+	+	+	+	+	+	+	+	+	0	10	
	8	21	21	21	18	19	23	21	21	+	20	185	10	
	TOTAL	37	39	40	36	39	41	40	37		40	349	10	
MSR	0	+	+	+	+	+	+	+	+	+	+	0	10	
	1	+	+	+	+	+	+	+	+	+	+	0	10	
	2	+	+	+	+	+	+	+	+	+	+	0	10	
	3	+	+	+	+	+	+	+	+	+	+	0	10	
	4	5	6	6	5	+	5	+	+	+	6	33	10	
	5	1	+	+	+	6	+	6	6	+	+	19	10	100
	6	11	11	13	9	12	13	11	12	♂+	11	103	10	
	7	+	+	+	+	+	+	+	+	+	+	0	10	
	8	20	18	20	18	19	20	19	19	+	22	175	10	
	TOTAL	37	35	39	32	37	38	36	37		39	330	10	
6.25%	0	+	+	+	+	+	+	+	+	+	+	0	10	
	1	+	+	+	+	+	+	+	+	+	+	0	10	
	2	+	+	+	+	+	+	+	+	+	+	0	10	
	3	+	+	+	+	+	+	+	+	+	+	0	10	
	4	6	5	+	+	+	6	+	2	+	+	19	10	100
	5	+	+	5	5	6	+	5	3	+	5	29	10	
	6	9	12	11	8	12	10	10	12	♂+	11	95	10	
	7	+	+	+	+	+	+	+	+	+	+	0	10	
	8	17	17	17	19	18	19	20	19	+	18	164	10	
	TOTAL	32	34	33	32	36	35	35	36		34	307	10	
12.5%	0	+	+	+	+	+	+	+	+	+	+	0	10	
	1	+	+	+	+	+	+	+	+	+	+	0	10	
	2	+	+	+	+	+	+	+	+	+	+	0	10	
	3	+	+	+	+	+	+	+	+	+	+	0	10	
	4	+	+	+	+	+	5	+	+	+	6	11	10	
	5	6	4	6	5	6	+	5	5	+	+	37	10	100
	6	12	12	9	12	11	11	+	12	♂+	12	91	10	
	7	+	+	+	+	+	+	11	+	+	+	11	10	
	8	18	17	20	19	20	22	20	21	+	22	179	10	
	TOTAL	36	33	35	36	37	38	36	38		40	329	10	

Ceriodaphnia dubia CHRONIC REPRODUCTION ASSAY

1 reps excluded from reproduction stats + brood production calculations

STUDY # 31739

CLIENT: Wood

SAMPLE: Surface Water

DILUENT: Receiving Water

Cerio Data
source: MSR ☒
MHR ☐
collected:
previous pm ☐
test day am ☒

DAY 0 04/05/19
TIME: 1600
FED: MW

DAY 1 04/06/19
TIME: ~~AM~~ 1110 ③MW 1416
FED: ~~MT~~ MW

DAY 2 04/07/19
TIME: 1040
FED: MT

DAY 3 04/08/19
TIME: 1305
FED: MT

DAY 4 04/09/19
TIME: 1230
FED: MT

DAY 5 04/10/19
TIME: 1145
FED: MT

DAY 6 04/11/19
TIME: 1020
FED: DG

DAY 7 04/12/19
TIME: 1105
FED: DG

DAY 8 04/13/19
TIME: 1430
FED: MT

LEGEND:

+ = LIVE

- = DEAD

♂ = MALE

M = MISSING

Calculations:
Initials: VF
Date: 4/18/19

CONC.	DAY	A	B	C	D	E	F	G	H	I	J	SUM	SURV.	
25%	0	+	+	+	+	+	+	+	+	+	+	0	10	
	1	+	+	+	+	+	+	+	+	+	+	0	10	
	2	+	+	+	+	+	+	+	+	+	+	0	10	
	3	+	+	+	+	+	+	+	+	+	+	0	10	
	4	+	+	+	+	+	+	+	+	+	+	0	10	
	5	6	6	5	6	6	5	5	6	+	6	51	10	
	6	10	10	10	9	11	8	+	11	♂+	11	80	10	100
	7	+	+	+	+	+	+	13	+	+	+	13	10	
	8	17	19	19	21	20	19	22	17	+	19	173	10	
	TOTAL	33	35	34	36	37	32	40	34		36	317	10	
50%	0	+	+	+	+	+	+	+	+	+	+	0	10	
	1	+	+	+	+	+	+	+	+	+	+	0	10	
	2	+	+	+	+	+	+	+	+	+	+	0	10	
	3	+	+	+	+	+	+	+	+	+	+	0	10	
	4	+	+	+	+	+	5	+	+	+	3	8	10	
	5	6	7	6	5	6	+	6	5	+	2	43	10	
	6	11	10	8	11	10	7	+	7	♂+	11	75	10	100
	7	+	+	+	+	+	+	15	+	+	+	15	10	
	8	18	18	20	19	18	21	21	21	+	19	175	10	
	TOTAL	35	35	35	35	34	33	42	33		35	316	10	
75%	0	+	+	+ @4/11/19	+	+	+	+	+	+	+	0	10	
	1	+	+	+	+	+	+	+	+	+	+	0	10	
	2	+	+	+	+	+	+	+	+	+	+	0	10	100
	3	+	+	+	+	+	+	+	+	+	+	0	10	
	4	+	+	+	+	+	6	+	+	+	+	6	10	
	5	6	6	5	6	7	+	6	6	+	2	44	10	
	6	9	12	11	9	10	10	6	11	♂+	11	89	10	
	7	+	+	+	+	+	+	3	+	+	+	3	10	
	8	17	17	20	16	17	20	21	19	+	20	167	10	
	TOTAL	32	35	36	31	34	36	36	36		33	309	10	
100%	0	+	+	+	+	+	+	+	+	+	+	0	10	
	1	+	+	+	+	+	+	+	+	+	+	0	10	
	2	+	+	+	+	+	+	+	+	+	+	0	10	
	3	+	+	+	+	+	+	+	+	+	+	0	10	
	4	+	6	+	+	+	5	+	+	+	+	11	10	100
	5	4	+	6	6	6	+	6	6	+	4	38	10	
	6	9	12	10	12	10	10	7	10	♂+	9	89	10	
	7	+	+	+	+	+	+	+	+	+	+	0	10	
	8	12	17	18	15	15	18	16	13	+	19	143	10	
	TOTAL	25	35	34	33	31	33	29	29		32	281	10	

Ceriodaphnia 7-d Survival and Reproduction Test **EnviroSystems, Inc.**

Start Date: 05 Apr-19 16:00 **Species:** Ceriodaphnia dubia **Sample Code:** 31739
End Date: 13 Apr-19 14:30 **Protocol:** EPA/821/R-02-013 (2002) **Sample Source:** C-Lab
Sample Date: 04 Apr-19 09:30 **Material:** Surface Water **Sample Station:** C040419 -CSW3

Conc-NA	Code	Rep	Pos	# Exposed	1d Survival	2d Survival	3d Survival	4d Survival	5d Survival	6d Survival	7d Survival	8d Survival	6d Neonates	7d Neonates	8d Neonates	Male
0	MS	1	7	1								1			37	0
0	MS	2	51	1								1			35	0
0	MS	3	36	1								1			39	0
0	MS	4	62	1								1			32	0
0	MS	5	65	1								1			37	0
0	MS	6	76	1								1			38	0
0	MS	7	58	1								1			36	0
0	MS	8	63	1								1			37	0
0	MS	9	15	1								1				-1
0	MS	10	74	1								1			39	0
0	SS	1	44	1								1			37	0
0	SS	2	38	1								1			39	0
0	SS	3	67	1								1			40	0
0	SS	4	61	1								1			36	0
0	SS	5	73	1								1			39	0
0	SS	6	18	1								1			41	0
0	SS	7	50	1								1			40	0
0	SS	8	9	1								1			37	0
0	SS	9	78	1								1				-1
0	SS	10	3	1								1			40	0
6.25		1	19	1								1			32	0
6.25		2	72	1								1			34	0
6.25		3	42	1								1			33	0
6.25		4	53	1								1			32	0
6.25		5	75	1								1			36	0
6.25		6	46	1								1			35	0
6.25		7	23	1								1			35	0
6.25		8	80	1								1			36	0
6.25		9	41	1								1				-1
6.25		10	8	1								1			34	0
12.5		1	56	1								1			36	0

Conc-NA	Code	Rep	Pos	# Exposed	1d Survival	2d Survival	3d Survival	4d Survival	5d Survival	6d Survival	7d Survival	8d Survival	6d Neonates	7d Neonates	8d Neonates	Male
12.5		2	29	1								1			33	0
12.5		3	45	1								1			35	0
12.5		4	20	1								1			36	0
12.5		5	59	1								1			37	0
12.5		6	57	1								1			38	0
12.5		7	21	1								1			36	0
12.5		8	40	1								1			38	0
12.5		9	24	1								1				-1
12.5		10	70	1								1			40	0
25		1	37	1								1			33	0
25		2	30	1								1			35	0
25		3	66	1								1			34	0
25		4	13	1								1			36	0
25		5	31	1								1			37	0
25		6	32	1								1			32	0
25		7	25	1								1			40	0
25		8	48	1								1			34	0
25		9	22	1								1				-1
25		10	14	1								1			36	0
50		1	27	1								1			35	0
50		2	64	1								1			35	0
50		3	34	1								1			34	0
50		4	52	1								1			35	0
50		5	1	1								1			34	0
50		6	68	1								1			33	0
50		7	47	1								1			42	0
50		8	55	1								1			33	0
50		9	60	1								1				-1
50		10	12	1								1			35	0
75		1	6	1								1			32	0
75		2	71	1								1			35	0
75		3	4	1								1			36	0
75		4	5	1								1			31	0
75		5	39	1								1			34	0
75		6	10	1								1			36	0
75		7	26	1								1			36	0

Conc-NA	Code	Rep	Pos	# Exposed	1d Survival	2d Survival	3d Survival	4d Survival	5d Survival	6d Survival	7d Survival	8d Survival	6d Neonates	7d Neonates	8d Neonates	Male
75		8	16	1								1			36	0
75		9	79	1								1				-1
75		10	17	1								1			33	0
100		1	49	1								1			25	0
100		2	69	1								1			35	0
100		3	28	1								1			34	0
100		4	2	1								1			33	0
100		5	35	1								1			31	0
100		6	33	1								1			33	0
100		7	43	1								1			29	0
100		8	11	1								1			29	0
100		9	77	1								1				-1
100		10	54	1								1			32	0

Ceriodaphnia 7-d Survival and Reproduction Test **EnviroSystems, Inc.**

Batch ID:	12-8811-4808	**Test Type:**	Reproduction-Survival (6-8d)	**Analyst:**	Lisa Francisco
Start Date:	05 Apr-19 16:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Moderately Soft Site Specific Reconsti
Ending Date:	13 Apr-19 14:30	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Duration:	7d 22h	**Source:**	In-House Culture	**Age:**	<24h

Sample ID:	03-1020-7525	**Code:**	31739	**Client:**	Wood E+I
Sample Date:	04 Apr-19 09:30	**Material:**	Surface Water	**Project:**	Special Studies
Receipt Date:	04 Apr-19 11:30	**Source:**	C-Lab		
Sample Age:	30h (6 °C)	**Station:**	C040419 -CSW3		

Multiple Comparison Summary

Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	TU	PMSD	✓
19-5487-9575	8d Proportion Survived	Fisher Exact/Bonferroni-Holm Test	100	> 100	n/a		n/a	
03-1317-0388	8d Reproduction	Dunnett Multiple Comparison Test	< 6.25	6.25	n/a		6.46%	

Point Estimate Summary

Analysis ID	Endpoint	Point Estimate Method	Level	NA	95% LCL	95% UCL	TU	✓
11-8270-7698	8d Proportion Survived	Linear Interpolation (ICPIN)	EC25	>100	n/a	n/a		✓
20-3556-4603	8d Proportion Survived	Linear Interpolation (ICPIN)	EC50	>100	n/a	n/a		✓
05-6945-0058	8d Reproduction	Linear Interpolation (ICPIN)	IC50	>100	n/a	n/a		✓
18-7110-7063	8d Reproduction	Linear Interpolation (ICPIN)	IC25	>100	n/a	n/a		✓

8d Proportion Survived Summary

Conc-NA	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	SS	10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
0	MS	10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
6.25		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
12.5		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
25		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
50		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
75		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%
100		10	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.00%	0.00%

8d Reproduction Summary

Conc-NA	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	SS	9	38.8	37.5	40.1	36	41	0.572	1.72	4.43%	0.00%
0	MS	9	36.7	35	38.3	32	39	0.726	2.18	5.94%	5.44%
6.25		9	34.1	32.9	35.3	32	36	0.512	1.54	4.50%	12.03%
12.5		9	36.6	35	38.1	33	40	0.669	2.01	5.49%	5.73%
25		9	35.2	33.4	37.1	32	40	0.795	2.39	6.77%	9.17%
50		9	35.1	33	37.2	33	42	0.904	2.71	7.73%	9.46%
75		9	34.3	32.8	35.8	31	36	0.645	1.94	5.64%	11.46%
100		9	31.2	28.8	33.6	25	35	1.04	3.11	9.97%	19.48%

Ceriodaphnia 7-d Survival and Reproduction Test **EnviroSystems, Inc.**

8d Proportion Survived Detail

Conc-NA	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	SS	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
0	MS	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
6.25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
12.5		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
75		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
100		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

8d Reproduction Detail

Conc-NA	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	SS	37	39	40	36	39	41	40	37		40
0	MS	37	35	39	32	37	38	36	37		39
6.25		32	34	33	32	36	35	35	36		34
12.5		36	33	35	36	37	38	36	38		40
25		33	35	34	36	37	32	40	34		36
50		35	35	34	35	34	33	42	33		35
75		32	35	36	31	34	36	36	36		33
100		25	35	34	33	31	33	29	29		32

Ceriodaphnia 7-d Survival and Reproduction Test — **EnviroSystems, Inc.**

Analysis ID:	19-5487-9575	**Endpoint:**	8d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	19 Apr-19 13:20	**Analysis:**	STP 2xK Contingency Tables	**Official Results:**	Yes
Sample ID:	03-1020-7525	**Code:**	31739	**Client:**	Wood E+I
Sample Date:	04 Apr-19 09:30	**Material:**	Surface Water	**Project:**	Special Studies
Receipt Date:	04 Apr-19 11:30	**Source:**	C-Lab		
Sample Age:	30h (6 °C)	**Station:**	C040419 -CSW3		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	TU
Untransformed	C > T	100	> 100	n/a	

Fisher Exact/Bonferroni-Holm Test

Control	vs	Group	Test Stat	P-Type	P-Value	Decision(α:5%)
Site Specific Lab		6.25	1.000	Exact	1.0000	Non-Significant Effect
		12.5	1.000	Exact	1.0000	Non-Significant Effect
		25	1.000	Exact	1.0000	Non-Significant Effect
		50	1.000	Exact	1.0000	Non-Significant Effect
		75	1.000	Exact	1.0000	Non-Significant Effect
		100	1.000	Exact	1.0000	Non-Significant Effect

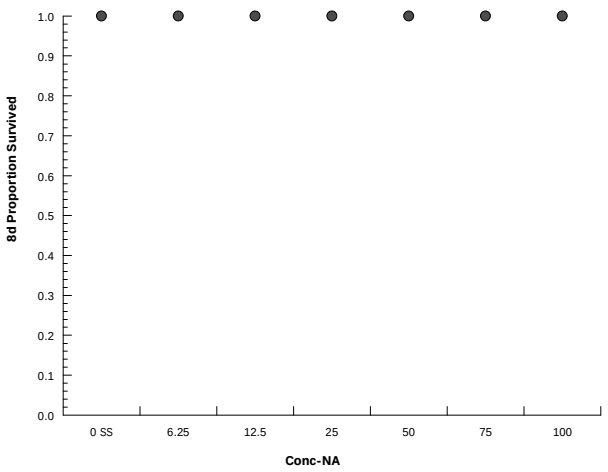
Data Summary

Conc-NA	Code	NR	R	NR + R	Prop NR	Prop R	%Effect
0	SS	10	0	10	1	0	0.0%
6.25		10	0	10	1	0	0.0%
12.5		10	0	10	1	0	0.0%
25		10	0	10	1	0	0.0%
50		10	0	10	1	0	0.0%
75		10	0	10	1	0	0.0%
100		10	0	10	1	0	0.0%

8d Proportion Survived Detail

Conc-NA	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	SS	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
6.25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
12.5		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
75		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
100		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Graphics



Ceriodaphnia 7-d Survival and Reproduction Test — **EnviroSystems, Inc.**

Analysis ID:	03-1317-0388	**Endpoint:**	8d Reproduction	**CETIS Version:**	CETISv1.9.3
Analyzed:	19 Apr-19 13:20	**Analysis:**	Parametric-Control vs Treatments	**Official Results:**	Yes
Sample ID:	03-1020-7525	**Code:**	31739	**Client:**	Wood E+I
Sample Date:	04 Apr-19 09:30	**Material:**	Surface Water	**Project:**	Special Studies
Receipt Date:	04 Apr-19 11:30	**Source:**	C-Lab		
Sample Age:	30h (6 °C)	**Station:**	C040419 -CSW3		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	C > T	< 6.25	6.25	n/a		6.46%

Dunnett Multiple Comparison Test

Control	vs	Control II	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)
Site Specific Lab		6.25*	4.38	2.35	2.5	16	CDF	1.5E-04	Significant Effect
		12.5	2.08	2.35	2.5	16	CDF	0.0872	Non-Significant Effect
		25*	3.33	2.35	2.5	16	CDF	0.0040	Significant Effect
		50*	3.44	2.35	2.5	16	CDF	0.0030	Significant Effect
		75*	4.17	2.35	2.5	16	CDF	3.0E-04	Significant Effect
		100*	7.08	2.35	2.5	16	CDF	6.3E-07	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	290.19	48.3651	6	9.45	3.7E-07	Significant Effect
Error	286.667	5.11905	56			
Total	576.857		62			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance Test	5.88	16.8	0.4372	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.975	0.948	0.2263	Normal Distribution

8d Reproduction Summary

Conc-NA	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	SS	9	38.8	37.5	40.1	39	36	41	0.572	4.43%	0.00%
6.25		9	34.1	32.9	35.3	34	32	36	0.512	4.50%	12.03%
12.5		9	36.6	35	38.1	36	33	40	0.669	5.49%	5.73%
25		9	35.2	33.4	37.1	35	32	40	0.795	6.77%	9.17%
50		9	35.1	33	37.2	35	33	42	0.904	7.73%	9.46%
75		9	34.3	32.8	35.8	35	31	36	0.645	5.64%	11.46%
100		9	31.2	28.8	33.6	32	25	35	1.04	9.97%	19.48%

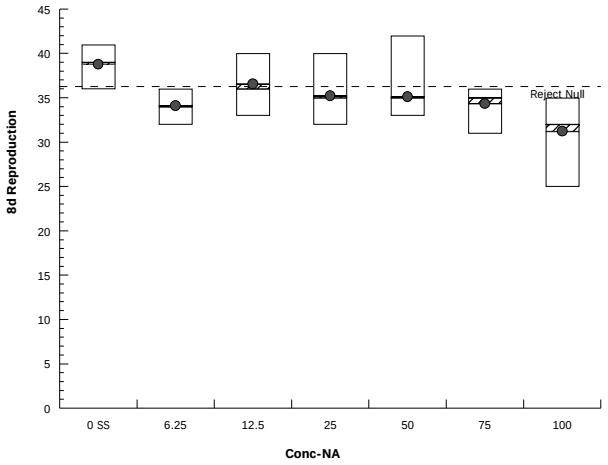
8d Reproduction Detail

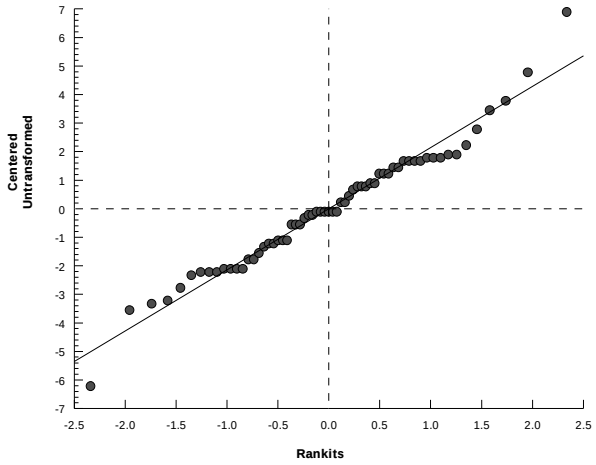
Conc-NA	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	SS	37	39	40	36	39	41	40	37	40	
6.25		32	34	33	32	36	35	35	36	34	
12.5		36	33	35	36	37	38	36	38	40	
25		33	35	34	36	37	32	40	34	36	
50		35	35	34	35	34	33	42	33	35	
75		32	35	36	31	34	36	36	36	33	
100		25	35	34	33	31	33	29	29	32	

Ceriodaphnia 7-d Survival and Reproduction Test **EnviroSystems, Inc.**

Analysis ID:	03-1317-0388	**Endpoint:**	8d Reproduction	**CETIS Version:**	CETISv1.9.3
Analyzed:	19 Apr-19 13:20	**Analysis:**	Parametric-Control vs Treatments	**Official Results:**	Yes

Graphics





Ceriodaphnia 7-d Survival and Reproduction Test — **EnviroSystems, Inc.**

Analysis ID:	20-3556-4603	**Endpoint:**	8d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	01 May-19 12:42	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes
Sample ID:	03-1020-7525	**Code:**	31739	**Client:**	Wood E+I
Sample Date:	04 Apr-19 09:30	**Material:**	Surface Water	**Project:**	Special Studies
Receipt Date:	04 Apr-19 11:30	**Source:**	C-Lab		
Sample Age:	30h (6 °C)	**Station:**	C040419 -CSW3		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Log(X+1)	Linear	261199	200	Yes	Two-Point Interpolation

Point Estimates

Level	NA	95% LCL	95% UCL
EC50	>100	n/a	n/a

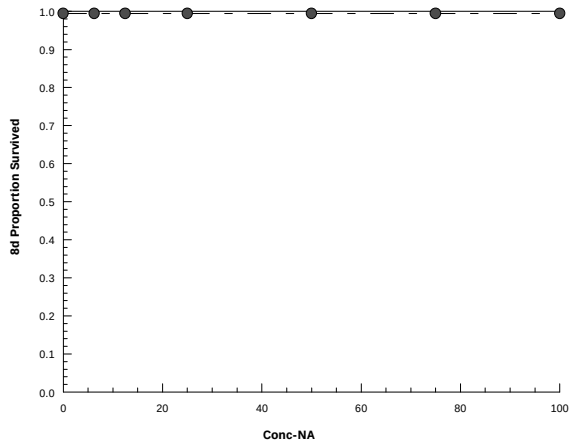
8d Proportion Survived Summary

			Calculated Variate(A/B)							Isotonic Variate	
Conc-NA	**Code**	**Count**	**Mean**	**Min**	**Max**	**Std Dev**	**CV%**	**%Effect**	**A/B**	**Mean**	**%Effect**
0	SS	10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
6.25		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
12.5		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
25		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
50		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
75		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
100		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%

8d Proportion Survived Detail

Conc-NA	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	SS	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
6.25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
12.5		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
75		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
100		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Graphics



Ceriodaphnia 7-d Survival and Reproduction Test — **EnviroSystems, Inc.**

Analysis ID:	11-8270-7698	**Endpoint:**	8d Proportion Survived	**CETIS Version:**	CETISv1.9.3
Analyzed:	01 May-19 12:42	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes
Sample ID:	03-1020-7525	**Code:**	31739	**Client:**	Wood E+I
Sample Date:	04 Apr-19 09:30	**Material:**	Surface Water	**Project:**	Special Studies
Receipt Date:	04 Apr-19 11:30	**Source:**	C-Lab		
Sample Age:	30h (6 °C)	**Station:**	C040419 -CSW3		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Log(X+1)	Linear	1255793	200	Yes	Two-Point Interpolation

Point Estimates

Level	NA	95% LCL	95% UCL
EC25	>100	n/a	n/a

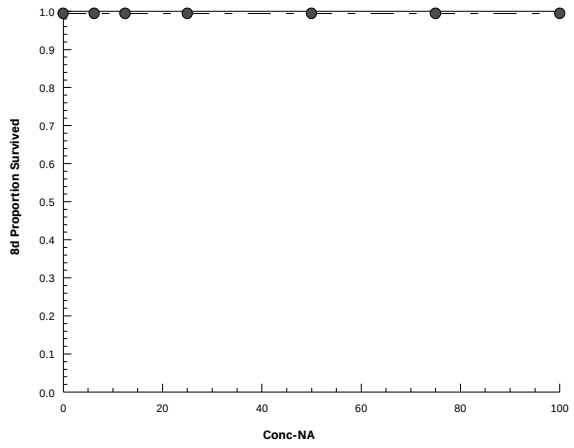
8d Proportion Survived Summary

			Calculated Variate(A/B)							Isotonic Variate	
Conc-NA	**Code**	**Count**	**Mean**	**Min**	**Max**	**Std Dev**	**CV%**	**%Effect**	**A/B**	**Mean**	**%Effect**
0	SS	10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
6.25		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
12.5		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
25		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
50		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
75		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%
100		10	1.000	1.000	1.000	0.000	0.00%	0.0%	10/10	1	0.0%

8d Proportion Survived Detail

Conc-NA	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	SS	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
6.25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
12.5		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
50		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
75		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
100		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Graphics



Ceriodaphnia 7-d Survival and Reproduction Test — **EnviroSystems, Inc.**

Analysis ID:	18-7110-7063	**Endpoint:**	8d Reproduction	**CETIS Version:**	CETISv1.9.3
Analyzed:	19 Apr-19 13:20	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes
Sample ID:	03-1020-7525	**Code:**	31739	**Client:**	Wood E+I
Sample Date:	04 Apr-19 09:30	**Material:**	Surface Water	**Project:**	Special Studies
Receipt Date:	04 Apr-19 11:30	**Source:**	C-Lab		
Sample Age:	30h (6 °C)	**Station:**	C040419 -CSW3		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Log(X+1)	Linear	588316	200	Yes	Two-Point Interpolation

Point Estimates

Level	NA	95% LCL	95% UCL
IC25	>100	n/a	n/a

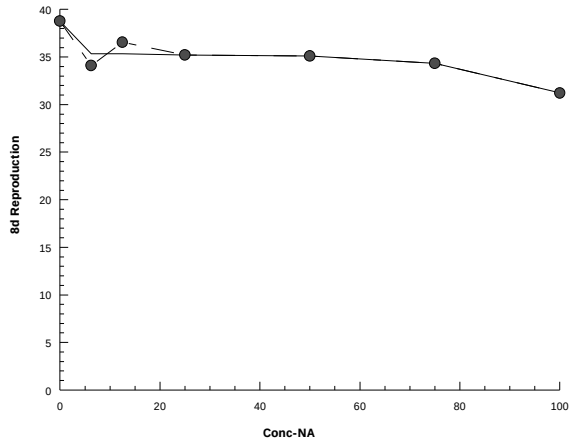
8d Reproduction Summary

			Calculated Variate						Isotonic Variate	
Conc-NA	**Code**	**Count**	**Mean**	**Min**	**Max**	**Std Dev**	**CV%**	**%Effect**	**Mean**	**%Effect**
0	SS	9	38.8	36	41	1.72	4.43%	0.0%	38.8	0.0%
6.25		9	34.1	32	36	1.54	4.50%	12.0%	35.3	8.88%
12.5		9	36.6	33	40	2.01	5.49%	5.73%	35.3	8.88%
25		9	35.2	32	40	2.39	6.77%	9.17%	35.2	9.17%
50		9	35.1	33	42	2.71	7.73%	9.46%	35.1	9.46%
75		9	34.3	31	36	1.94	5.64%	11.5%	34.3	11.5%
100		9	31.2	25	35	3.11	9.97%	19.5%	31.2	19.5%

8d Reproduction Detail

Conc-NA	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	SS	37	39	40	36	39	41	40	37	40	
6.25		32	34	33	32	36	35	35	36	34	
12.5		36	33	35	36	37	38	36	38	40	
25		33	35	34	36	37	32	40	34	36	
50		35	35	34	35	34	33	42	33	35	
75		32	35	36	31	34	36	36	36	33	
100		25	35	34	33	31	33	29	29	32	

Graphics



Ceriodaphnia 7-d Survival and Reproduction Test — **EnviroSystems, Inc.**

Analysis ID:	05-6945-0058	**Endpoint:**	8d Reproduction	**CETIS Version:**	CETISv1.9.3
Analyzed:	01 May-19 12:42	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes
Sample ID:	03-1020-7525	**Code:**	31739	**Client:**	Wood E+I
Sample Date:	04 Apr-19 09:30	**Material:**	Surface Water	**Project:**	Special Studies
Receipt Date:	04 Apr-19 11:30	**Source:**	C-Lab		
Sample Age:	30h (6 °C)	**Station:**	C040419 -CSW3		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Log(X+1)	Linear	2083852	200	Yes	Two-Point Interpolation

Residual Analysis

Attribute	Method	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value	Grubbs Extreme Value Test	3.2	3.22	0.0531	No Outliers Detected

Point Estimates

Level	NA	95% LCL	95% UCL
IC50	>100	n/a	n/a

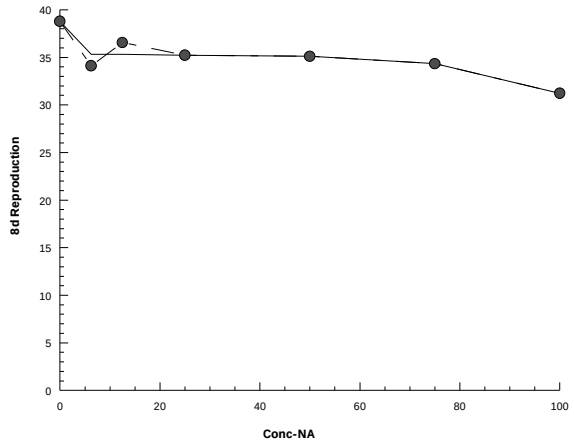
8d Reproduction Summary

			Calculated Variate						Isotonic Variate	
Conc-NA	Code	Count	Mean	Min	Max	Std Dev	CV%	%Effect	Mean	%Effect
0	SS	9	38.8	36	41	1.72	4.43%	0.0%	38.8	0.0%
6.25		9	34.1	32	36	1.54	4.50%	12.0%	35.3	8.88%
12.5		9	36.6	33	40	2.01	5.49%	5.73%	35.3	8.88%
25		9	35.2	32	40	2.39	6.77%	9.17%	35.2	9.17%
50		9	35.1	33	42	2.71	7.73%	9.46%	35.1	9.46%
75		9	34.3	31	36	1.94	5.64%	11.5%	34.3	11.5%
100		9	31.2	25	35	3.11	9.97%	19.5%	31.2	19.5%

8d Reproduction Detail

Conc-NA	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	SS	37	39	40	36	39	41	40	37	40	
6.25		32	34	33	32	36	35	35	36	34	
12.5		36	33	35	36	37	38	36	38	40	
25		33	35	34	36	37	32	40	34	36	
50		35	35	34	35	34	33	42	33	35	
75		32	35	36	31	34	36	36	36	33	
100		25	35	34	33	31	33	29	29	32	

Graphics



FRESHWATER CHRONIC ASSAY - NEW WATER QUALITIES

C. dubia

STUDY:	CLIENT:	SAMPLE:	DILUENT:
31739	Wood	Surface Water	SSR

NEW DISSOLVED OXYGEN (mg/L)

CONC	REP	0	1	2	3	4	5	6	7
SSR	A	8.5	8.6	8.7	8.6	8.7	8.5	8.9	8.8
MSR	A	8.7	8.7	8.7	8.7	8.8	8.6	8.8	8.7
6.25%	A	8.6	8.7	8.7	8.7	8.8	8.5	8.8	8.6
12.5%	A	8.6	8.7	8.8	8.7	8.8	8.6	8.8	8.6
25%	A	8.7	8.9	8.9	8.8	8.8	8.6	8.7	8.6
50%	A	8.8	9.4	9.3	8.9	8.9	8.7	8.8	8.8
75%	A	9.0	9.8	9.6	9.2	9.1	8.9	8.8	8.8
100%	A	9.3	10.3	10.1	9.6	9.4	9.1	9.0	9.0

pH (SU)

CONC	REP	0	1	2	3	4	5	6	7
SSR	A	7.43	7.37	7.54	7.56	7.30	7.63	7.53	7.57
MSR	A	7.69	7.67	7.81	7.87	7.70	7.89	7.78	7.76
6.25%	A	7.51	7.53	7.66	7.73	7.72	7.66	7.69	7.69
12.5%	A	7.50	7.43	7.58	7.64	7.65	7.63	7.62	7.54
25%	A	7.46	7.43	7.54	7.57	7.60	7.63	7.62	7.52
50%	A	7.40	7.32	7.49	7.51	7.54	7.64	7.58	7.53
75%	A	7.37	3734 (23 MW 4/16)	7.48	7.46	7.51	7.64	7.57	7.60
100%	A	7.37	7.35	7.45	7.40	7.46	7.63	7.56	7.63

NEW SPECIFIC CONDUCTIVITY (µmhos/cm)

CONC	REP	0	1	2	3	4	5	6	7
SSR	A	100	98	102	103	104	97	99	101
MSR	A	183	189	194	193	189	191	188	191
6.25%	A	112	111	118	119	118	111	113	113
12.5%	A	125	122	127	130	129	122	123	126
25%	A	152	148	149	149	152	146	140	150
50%	A	204	196	207	204	200	196	192	201
75%	A	258	244	258	260	251	245	246	252
100%	A	311	299	322	318	300	294	291	304
Inc. Temp. °C		25	26	25	26	26	26	25	25
DATE:		04/05/19	04106	04107	04108	04109	04110	04111	04112
TIME:		1540	1020	0940	1050	1115	1100	0925	0835
INITIALS:		GRS	MW	MT	MT	MW	LAG	MW	MW

NEW TEMPERATURE (°C)

CONC	REP	0	1	2	3	4	5	6	7
SSR	A	24	22	23	23	22	22	21	23
MSR	A	23	22	23	23	22	22	22	23
6.25%	A	23	23	23	23	22	22	22	23
12.5%	A	23	23	23	23	22	22	21	23
25%	A	24	23	23	24	22	22	21	23
50%	A	24	23	23	24	22	22	22	23
75%	A	24	23	23	24	23	22	22	23
100%	A	24	23	23	23	23	22	22	23

	DAY 0 (START)							DAY 2 (1ST RENEWAL)				DAY 4 (2ND RENEWAL)			
	METALS	TOC	ALK	HARD	AMM	TS/TDS	TRC	ALK	HARD	AMM	TRC	ALK	HARD	AMM	TRC
EFF	-002	-003	-004	-005	-006	-007	<0.02	-017	-018	-019	<0.02	-027	-028	-029	<0.02
RW	-009	-010	-011	-012	-013			-021	-022	-023		-031	-032	-033	

Did 1st Renewal sample cause ≥50% mortality? Yes ____ No X

If "YES" put into circulation TOC and METALS bottles. ____

Did 2nd Renewal sample cause ≥50% mortality? Yes ____ No X

If "YES" put into circulation TOC and METALS bottles. ____

Ceriodaphnia dubia CHRONIC REPRODUCTION ASSAY

OLD WATER QUALITIES

STUDY: 31739	CLIENT: Wood	SAMPLE: Surface Water

CONC	DAY	pH (SU)	Temp (°C)	DO (mg/L)	S/C (µMHOS/CM)	CONC	DAY	pH (SU)	Temp (°C)	DO (mg/L)	S/C (µMHOS/CM)	INIT
SSR	1	7.43	21	8.5	104	25%	1	7.87	21	9.0	154	MW
	2	8.05	21	9.3	153		2	8.10	21	9.4	158	MT
	3	8.10	21	9.3	113		3	7.99	21	9.2	156	MT
	4	7.77	21	9.2	112		4	7.82	21	9.2	157	MT
	5	7.84	22	8.9	114		5	7.76	22	8.8	161	MT
	6	7.48	21	7.6	109		6	7.76	21	7.7	152	EL J
	7	7.77	20	8.9	111		7	7.77	21	8.8	154	BG
	8	7.89	23	8.9	115		8	7.85	22	8.8	159	MT
MSR	1	7.78	21	8.8	190	50%	1	7.89	21	9.1	202	
	2	8.31	21	9.4	203		2	8.37	21	9.6	208	
	3	8.22	21	9.3	206		3	8.11	21	9.3	211	
	4	7.98	21	9.2	203		4	7.97	21	9.2	211	
	5	7.90	22	8.8	201		5	7.87	22	8.8	208	
	6	7.76	21	7.7	197		6	7.89	21	7.7	201	
	7	7.92	21	8.8	201		7	7.75	21	8.8	207	
	8	8.04	23	8.9	205		8	7.96	22	8.7	210	
6.25%	1	7.81	21	8.9	118	75%	1	8.15	21	9.1	252	
	2	8.11	21	9.4	123		2	8.37	20	9.6	250	
	3	8.07	21	9.3	128		3	8.24	21	9.3	257	
	4	7.84	21	9.2	127		4	8.10	21	9.2	263	
	5	7.77	22	8.9	129		5	7.99	22	8.8	262	
	6	7.67	21	7.6	117		6	8.03	21	7.8	248	
	7	7.86	21	8.8	124		7	7.86	21	8.8	264	
	8	7.83	23	8.8	123		8	8.11	22	8.8	262	
12.5%	1	7.84	21	8.9	129	100%	1	8.32	21	9.2	304	
	2	8.09	21	9.4	132		2	8.46	20	9.6	311	
	3	7.97	21	9.3	135		3	8.40	21	9.4	316	
	4	7.81	21	9.2	139		4	8.27	20	9.3	315	
	5	7.77	22	8.8	139		5	8.09	22	8.9	314	
	6	7.68	21	7.7	128		6	8.19	20	7.9	299	
	7	7.79	21	8.8	133		7	8.08	21	8.8	314	
	8	7.80	23	8.8	135		8	8.21	22	8.8	316	

RECORD OF METERS USED FOR WATER QUALITY MEASUREMENT

C. dubia

STUDY: 31739	CLIENT: Wood

OLD WATER QUALITIES

	0	1	2	3	4	5	6	7	8
Water Quality Station #		2	1	2	2	2	2	2	1
Temperature: Thermometer or Probe #		1	159	1	1	1	1	1	159
Initials		MW	MT	MT	MT	MT	ELJ	BG	MT

NEW WATER QUALITIES

	0	1	2	3	4	5	6	7	8
Water Quality Station #	1	2	2	2	2	1	1	1	
Temperature: Thermometer or Probe #	159	1	1	1	1	159	159	159	
Initials	GRS	MW	MT	MT	MW	LAG	MW	MW	
Date	04/05/19	04/06	04/07	04/08	04/09	04/10	04/11/19	04/12/19	04/13

Water Quality Station #1		Water Quality Station #2		COMMENTS
DO meter #	ML01	DO meter #	ML02	
DO probe #	96	DO probe #	160	
pH meter #	ML01	pH meter #	ML02	
pH probe #	158	pH probe #	163	
S/C meter #	ML01	S/C meter #	ML02	
S/C probe #	159	S/C probe #	1	

Report No: 31739 SDG:
Project: Honeywell C-Lab

Sample ID: C040419-CSW3
Matrix: Water
Sampled: 04/04/19 1340

Parameter		Result	Quant Limit	Units	Date Prepared	Date of Analysis	INIT/Method/Reference
Alkalinity as CaCO3	31739-100	60	2	mg/L	04/05/19 1230	04/05/19 1230	JHW/EPA 310.2
Hardness as CaCO3	31739-101	74	0.3	mg/L	04/05/19 1000	04/05/19 1313	EG /ess/SW846 3rd Ed. 6020

Report No: 31732 SDG:
Project: Site Specific Reconstituted Laboratory Control Water

Sample ID: SSR W-1214 04/05/19
Matrix: Water
Sampled: 04/05/19 1620

Parameter		Result		Quant Limit	Units	Date Prepared	Date of Analysis	INIT/Method/Reference
Total solids	31732-006	82	B	10	mg/L	04/09/19 1515	04/15/19 1040	CA /SM 2540B
Total suspended solids	31732-007	ND		1	mg/L	04/09/19 1150	04/15/19 1545	CA /SM 2540D
Alkalinity as CaCO3	31732-003	19	B=3.2	2	mg/L	04/18/19 1045	04/18/19 1045	JHW/EPA 310.2
Ammonia-N	31732-005	ND		0.1	mg/L as N	04/12/19 1400	04/12/19 1400	JHW/SM 4500-NH3 G
Hardness as CaCO3	31732-004	27		0.3	mg/L	04/18/19 1030	04/19/19 1407	AL /ess/SW846 3rd Ed. 6020
Aluminum, total	31732-001	ND		0.02	mg/L	04/09/19 1500	04/09/19 1731	EG /EPA 200.8
Cadmium, total	31732-001	ND		0.0001	mg/L	04/09/19 1500	04/09/19 1731	EG /EPA 200.8
Calcium, total	31732-001	5.21		0.05	mg/L	04/09/19 1500	04/09/19 1731	EG /EPA 200.8
Chromium, total	31732-001	ND		0.001	mg/L	04/09/19 1500	04/09/19 1731	EG /EPA 200.8
Copper, total	31732-001	0.0011		0.0005	mg/L	04/09/19 1500	04/09/19 1731	EG /EPA 200.8
Iron, total	31732-001	ND		0.01	mg/L	04/09/19 1500	04/09/19 1731	EG /EPA 200.8
Lead, total	31732-001	ND		0.0002	mg/L	04/09/19 1500	04/09/19 1731	EG /EPA 200.8
Magnesium, total	31732-001	3.1		0.05	mg/L	04/09/19 1500	04/09/19 1731	EG /EPA 200.8
Nickel, total	31732-001	ND		0.001	mg/L	04/09/19 1500	04/09/19 1731	EG /EPA 200.8
Selenium, total	31732-001	0.0025		0.002	mg/L	04/09/19 1500	04/09/19 1731	EG /EPA 200.8
Zinc, total	31732-001	0.0029		0.002	mg/L	04/09/19 1500	04/09/19 1731	EG /EPA 200.8

Notes:
B = Analyte detected in PB at level noted.

ND = Not Detected

ANALYTICAL REPORT

Lab Number:	L1914187
Client:	Enthalpy Analytical 1 Lafayette Road PO Box 778 Hampton, NH 03843
ATTN:	Lisa Francisco
Phone:	(603) 926-3345
Project Name:	31732
Project Number:	31732
Report Date:	04/15/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 31732
Project Number: 31732

Lab Number: L1914187
Report Date: 04/15/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1914187-01	31732-002	WATER	Not Specified	04/05/19 16:20	04/09/19

Project Name:	31732	**Lab Number:**	L1914187
Project Number:	31732	**Report Date:**	04/15/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

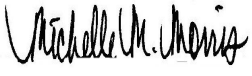
When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 04/15/19

INORGANICS
&
MISCELLANEOUS

Project Name: 31732
Project Number: 31732

Lab Number: L1914187
Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914187-01
Client ID: 31732-002
Sample Location: Not Specified

Date Collected: 04/05/19 16:20
Date Received: 04/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Total Organic Carbon	1.09		mg/l	1.00	--	2	-	04/12/19 08:52	121,5310C	DW

Project Name: 31732 **Lab Number:** L1914187

Project Number: 31732 **Report Date:** 04/15/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1225697-1										
Total Organic Carbon	ND		mg/l	0.500	--	1	-	04/12/19 08:52	121,5310C	DW

Lab Control Sample Analysis

Batch Quality Control

Project Name: 31732

Project Number: 31732

Lab Number: L1914187

Report Date: 04/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1225697-2								
Total Organic Carbon	107		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 31732
Project Number: 31732

Lab Number: L1914187
Report Date: 04/15/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1225697-4 QC Sample: L1914153-01 Client ID: MS Sample												
Total Organic Carbon	13.7	80	93.5	100		-	-		80-120	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 31732
Project Number: 31732

Lab Number: L1914187
Report Date: 04/15/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1225697-3 QC Sample: L1914153-01 Client ID: DUP Sample						
Total Organic Carbon	13.7	14.1	mg/l	3		20

Project Name: 31732
Project Number: 31732

Lab Number: L1914187
Report Date: 04/15/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	*Custody Seal*
A	Absent

Container Information

Container ID	*Container Type*	*Cooler*	*Initial pH*	*Final pH*	*Temp deg C*	*Pres*	*Seal*	*Frozen Date/Time*	*Analysis(*)*
L1914187-01A	Vial H2SO4 preserved	A	NA		3.7	Y	Absent		TOC-5310(28)

*Values in parentheses indicate holding time in days

Project Name:	31732	**Lab Number:**	L1914187
Project Number:	31732	**Report Date:**	04/15/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report

Project Name:	31732	**Lab Number:**	L1914187
Project Number:	31732	**Report Date:**	04/15/19

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the reporting limit (RL) for the sample.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: Data Usability Report

Project Name:	31732	**Lab Number:**	L1914187
Project Number:	31732	**Report Date:**	04/15/19

REFERENCES

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

EA
Enthalpy Analytical
1 Lafayette Road
Hampton, NH 03842

Voice: 603-926-3345
FAX: 603-926-3521

EA Job No: L1914187

CHAIN OF CUSTODY DOCUMENTATION

Client:	EnviroSystems, Inc.	Contact: Lisa Francisco		Project Name: 31732	
Report to:	Lisa Francisco	Address: P.O. Box 778		Project Number:	Task: 0001
Invoice to:	Victoria Bourque	Address: Hampton, NH 03843		Project Manager:	
Voice:	603-926-3345	Fax:		email: lisa.francisco@enthalpy.com	P.O.No: 1033099

Lab Number (assigned by lab)	Your Field ID: (must agree with container)	Date Sampled	Time Sampled	Sampled By	Grab or com-posite (G/C)	Container No	Container Size (mL)	Container Type (P/G/T)	Field Preser-vation	Matrix S=Solid W=Water	Filter N=Not needed F=Done in field L=Lab to do	Analyses Requested\ Special Instructions:
1418701	31732-002	04/05/19	1620			1	40	G	H2SO4	Water	N	TOC

Relinquished By: [signature] Date: 4-9-19 Time: 11:30 Received By: [signature] Date: 4.9.19 Time: 11:30

Relinquished By: [signature] Date: 4-9-19 Time: Received at Lab By: [signature] AAL Date: 4/9/19 Time: 1700

Comments: [signature] 4/9/19 1848

COC Number: Sample Delivery Group No: Page of

Assay Review Checklist

DATE IN: 04/04/19 **STUDY#:** 31739

DATE DUE: 04/25/19 **CLIENT:** Wood

PROJECT: Honeywell C-Lab

ASSAY: CD7DCR

Project Paperwork Check for Completeness			
	Date	**Initials**	**Comments**
Day 0	04/05/19	MW	
Day 1	04/06/19	MW	
Day 2	04/07	MT	
Day 3	04/08	MT	
Day 4	04/09	MT	
Day 5	04/10	MT	
Day 6	04/11	ELJ	
Day 7	04/12/19	BG	
Day 8	04/13	MT	

Analyst Data Review	**Date**	**Initials**	**Comments**
Chains of Custody Complete	04/24/19	LJG	
Sample Receipt Complete	↓	↓	
Organism Culture Sheet(s)	↓	↓	
Bench Sheets Complete (dates, times, initials, etc...)	↓	↓	
Water Quality Data Complete	↓	↓	
TRC Values & Bottle Numbers	↓	↓	
Daphnid Calculations Complete	↓	↓	
Weights Reported	N/A	N/A	
Assay Acceptability Review	04/24/19	LJG	

Technical Report Review	**Date**	**Initials**	**Comments**
Statistical Analysis Complete	4/19/19	LF	
Statistical Analysis Reviewed	4/30/19	NR	
Data Acceptability Review	↓	↓	CD- 1 reps excl from rep 4 stats + hatched prod low. - Non-sig dose resp w/ sig effect on all [ ]s > 25% 12.5% CV, resulting in a calc'd IC25 of <6.25%. Controls met TAC, but MSD is low, meaning a higher likelihood of finding sig. calc'd IC25 for rep 3 is >100%. Data are prov. valid + a NOEL of 100% is considered rep
Supporting Chemistry Report	5/1/19	NR	
Draft Report	↓	↓	
QA Audit/Review Complete			
Final Report Reviewed	5/2/19	LF	
Final Report Printed - PDF	5/7/19	NR	
Executive Summary / Chems Sent			
Report E-mailed / Faxed	5/7/19	NR	
Report Logged Out / Invoice Sent	↓	↓	
Report Scanned to Archive	↓	↓	

P:\GENERAL PROJECTS\FORMS\LABFORMS\$ Assay Review Checklist.wpd

Honeywell
THE POWER OF CONNECTED

APPENDIX F
SOIL DATA SUMMARY

Appendix F.Soil Data Summary
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Location ID	01_SOIL-0-1		02_SOIL-0-1		03_SOIL-0-1		04_SOIL-0-1		05_SOIL-0-1	
Start Depth (Feet)	0		0		0		0		0	
End Depth (Feet)	1		1		1		1		1	
Field Sample ID	C110617-01 SOIL-0-1		C110617-02 SOIL-0-1		C110617-03 SOIL-0-1		C110617-04 SOIL-0-1		C110617-05 SOIL-0-1	
Sample Date	11/6/2017		11/6/2017		11/6/2017		11/6/2017		11/6/2017	
Parameter [a]										
VOCs (mg/kg)										
Acetone	0.0064	J			0.0053	J	0.0075	J		
m&p-Xylenes										
m-Xylene & p-Xylene			0.0004	J			0.00038	J		
Trichloroethene									0.0036	J
Extractable Petroleum Hydrocarbons (mg/kg)										
EPH - Total										
C11-C22 Aromatic										
C19-C36 Aliphatic										
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium - Total	60		74		83		56		63	
Chromium - Hexavalent	2.9	J	0.55	J					0.17	J
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Sodium										
Vanadium										
Zinc										

Appendix F.Soil Data Summary
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Location ID	06_SOIL-0-1		B-01		B-02		B-05		B-11		B-15	
Start Depth (Feet)	0		0		0		1		0		0	
End Depth (Feet)	1		1		1		2		2		2	
Field Sample ID	C110617-06 SOIL-0-1		B1(0-1)		B2(0-1)		B5(1-2)		B11(0-2)		C062104-B15-0-2	
Sample Date	11/6/2017		9/15/2003		9/15/2003		9/17/2003		9/15/2003		6/21/2004	
Parameter [a]												
VOCs (mg/kg)												
Acetone	0.0093	J										
m&p-Xylenes											0.0033	
m-Xylene & p-Xylene												
Trichloroethene											0.0042	
Extractable Petroleum Hydrocarbons (mg/kg)												
EPH - Total											120	
C11-C22 Aromatic											110	
C19-C36 Aliphatic											11	
Metals (mg/kg)												
Aluminum					12800				11800		10000	
Antimony												
Arsenic					25.7				20.7		30	
Barium					49.8				42.4		36	
Beryllium											0.23	
Cadmium									1.67			
Calcium					1250				1670		1200	
Chromium - Total	66		36		74.3		170		44.3		75	
Chromium - Hexavalent	2.5	J	21.2		5.61							
Cobalt					7.88				6.39		7.9	
Copper					39				48.8		30	
Iron					16000				12200		15000	
Lead					47.5				31.1		9.4	
Magnesium					5990				3810		5800	
Manganese					281				252		220	
Mercury					0.17				0.08			
Nickel					26.5				21.6		26	
Potassium					1470				721		1900	
Sodium					193						130	
Vanadium					27.2				22.1		23	
Zinc					57.3				53		31	

Appendix F.Soil Data Summary
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Location ID	B-34		B-40		B-41		B-61		B-67		B-88	
Start Depth (Feet)	0.4		0		0.5		0		0.25		0	
End Depth (Feet)	2		2		1		2		2		2	
Field Sample ID	C062304-B34-0.4-2		C062404-B40-0-2		C062404-B41-0.5-1		C100604-B61-S1		C100704-B67-S1		C101504-B88-S1	
Sample Date	6/23/2004		6/24/2004		6/24/2004		10/6/2004		10/7/2004		10/15/2004	
Parameter [a]												
VOCs (mg/kg)												
Acetone												
m&p-Xylenes												
m-Xylene & p-Xylene												
Trichloroethene												
Extractable Petroleum Hydrocarbons (mg/kg)												
EPH - Total												
C11-C22 Aromatic												
C19-C36 Aliphatic												
Metals (mg/kg)												
Aluminum	24000		12000		12000							
Antimony											0.26	
Arsenic	100		27		20		44		48		34	
Barium	160		61		19							
Beryllium			0.25		0.34						0.13	
Cadmium												
Calcium	6100		1800		1000							
Chromium - Total	120		76		120		61		72		29	
Chromium - Hexavalent	3.6		1.5				1.2		6		0.25	
Cobalt	20		8.7		6.6							
Copper	62		40		55		32		31		15	
Iron	36000		17000		15000							
Lead	14		7.8		150		11		11		9.3	
Magnesium	17000		7700		5100							
Manganese	360		270		190							
Mercury												
Nickel	59		33		22							
Potassium	7400		3600		1200							
Sodium	570		160		400							
Vanadium	83		30		25							
Zinc	67		37		53							

Appendix F.Soil Data Summary
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Location ID	B-89		B-90		BGS-1		BGS-1		CLSoil6	
Start Depth (Feet)	0		0.25		0.5		1		0	
End Depth (Feet)	2		2		1		1.5		0.5	
Field Sample ID	C101504-B89-S1		C101504-B90-S1		C062404-BGS1-0.5-1		C062404-BGS1-1-1.5		C052893-CLSOIL6	
Sample Date	10/15/2004		10/15/2004		6/24/2004		6/24/2004		5/28/1993	
Parameter [a]										
VOCs (mg/kg)										
Acetone										
m&p-Xylenes										
m-Xylene & p-Xylene										
Trichloroethene										
Extractable Petroleum Hydrocarbons (mg/kg)										
EPH - Total										
C11-C22 Aromatic										
C19-C36 Aliphatic										
Metals (mg/kg)										
Aluminum					13000		11000			
Antimony	0.33		1.2							
Arsenic	17		86		29		19		3.8	
Barium					28		26		12	
Beryllium					0.5		0.41			
Cadmium									0.68	
Calcium					830		700			
Chromium - Total	57		100		27		23		25	
Chromium - Hexavalent			24							
Cobalt					4.9		4.8			
Copper	15		200		17		10		10	
Iron					13000		11000			
Lead	8.8		4.4		18		25		44	
Magnesium					3600		2900			
Manganese					130		150			
Mercury										
Nickel					18		14		19	
Potassium					720		450			
Sodium										
Vanadium					23		20			
Zinc					38		38			

Appendix F.Soil Data Summary
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053
Groton, MA

Location ID	CLSoil7		CLSoil8		CLSoil9		CLSoil10	
Start Depth (Feet)	0		0		0		0	
End Depth (Feet)	0.5		0.5		0.5		0.5	
Field Sample ID	C052893-CLSOIL7		C052893-CLSOIL8		C052893-CLSOIL9		C052893-CLSOIL10	
Sample Date	5/28/1993		5/28/1993		5/28/1993		5/28/1993	
Parameter [a]								
VOCs (mg/kg)								
Acetone								
m&p-Xylenes								
m-Xylene & p-Xylene								
Trichloroethene								
Extractable Petroleum Hydrocarbons (mg/kg)								
EPH - Total								
C11-C22 Aromatic								
C19-C36 Aliphatic								
Metals (mg/kg)								
Aluminum								
Antimony								
Arsenic	4		4.1		2.8		5.1	
Barium	15		14		14		22	
Beryllium								
Cadmium	0.83		1.1		0.72		0.67	
Calcium								
Chromium - Total	27		37		26		26	
Chromium - Hexavalent								
Cobalt								
Copper	10		14		11		7.4	
Iron								
Lead	54		72		16		31	
Magnesium								
Manganese								
Mercury								
Nickel	23		30		21		18	
Potassium								
Sodium								
Vanadium								
Zinc								

Honeywell
THE POWER OF CONNECTED

APPENDIX G
95% UCL OUTPUT

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.16/28/2022 8:11:18 AM
From File	ProUCL input soil 0-2.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

mp-Xylenes

General Statistics

Total Number of Observations	13	Number of Distinct Observations	10
Number of Detects	1	Number of Non-Detects	12
Number of Distinct Detects	1	Number of Distinct Non-Detects	9

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable mp-Xylenes was not processed!

Aluminum

General Statistics

Total Number of Observations	8	Number of Distinct Observations	7
		Number of Missing Observations	13
Minimum	10000	Mean	13325
Maximum	24000	Median	12000
SD	4418	Std. Error of Mean	1562
Coefficient of Variation	0.332	Skewness	2.559

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.63	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.404	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	16284	95% Adjusted-CLT UCL (Chen-1995)	17405
		95% Modified-t UCL (Johnson-1978)	16520

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Gamma GOF Test

A-D Test Statistic	1.191	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.715	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.376	**Kolmogorov-Smirnov Gamma GOF Test**	
5% K-S Critical Value	0.294	Data Not Gamma Distributed at 5% Significance Level	

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	14.14	k star (bias corrected MLE)	8.919
Theta hat (MLE)	942.6	Theta star (bias corrected MLE)	1494
nu hat (MLE)	226.2	nu star (bias corrected)	142.7
MLE Mean (bias corrected)	13325	MLE Sd (bias corrected)	4462
		Approximate Chi Square Value (0.05)	116.1
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	110

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	16379	95% Adjusted Gamma UCL (use when n<50)	17282

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.721	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.358	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data Not Lognormal at 5% Significance Level	

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	9.21	Mean of logged Data	9.462
Maximum of Logged Data	10.09	SD of logged Data	0.266

Assuming Lognormal Distribution

95% H-UCL	16307	90% Chebyshev (MVUE) UCL	17007
95% Chebyshev (MVUE) UCL	18704	97.5% Chebyshev (MVUE) UCL	21061
99% Chebyshev (MVUE) UCL	25690		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	15894	95% Jackknife UCL	16284
95% Standard Bootstrap UCL	15720	95% Bootstrap-t UCL	22934
95% Hall's Bootstrap UCL	28183	95% Percentile Bootstrap UCL	16250
95% BCA Bootstrap UCL	17375		
90% Chebyshev(Mean, Sd) UCL	18011	95% Chebyshev(Mean, Sd) UCL	20134
97.5% Chebyshev(Mean, Sd) UCL	23080	99% Chebyshev(Mean, Sd) UCL	28867

Suggested UCL to Use

95% Student's-t UCL	16284	or 95% Modified-t UCL	16520

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Antimony

General Statistics

Total Number of Observations	13	Number of Distinct Observations	9

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

		Number of Missing Observations	8
Number of Detects	3	Number of Non-Detects	10
Number of Distinct Detects	3	Number of Distinct Non-Detects	7
Minimum Detect	0.26	Minimum Non-Detect	1.2
Maximum Detect	1.2	Maximum Non-Detect	6.94
Variance Detects	0.274	Percent Non-Detects	76.92%
Mean Detects	0.597	SD Detects	0.524
Median Detects	0.33	CV Detects	0.878
Skewness Detects	1.697	Kurtosis Detects	N/A
Mean of Logged Detects	-0.758	SD of Logged Detects	0.823

Warning: Data set has only 3 Detected Values.

This is not enough to compute meaningful or reliable statistics and estimates.

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.806	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.767	Detected Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.361	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.425	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.446	KM Standard Error of Mean	0.171
KM SD	0.339	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.75	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.726	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.957	95% KM Chebyshev UCL	1.189
97.5% KM Chebyshev UCL	1.511	99% KM Chebyshev UCL	2.142

Gamma GOF Tests on Detected Observations Only

Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only

k hat (MLE)	2.224	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.268	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	13.34	nu star (bias corrected)	N/A
Mean (detects)	0.597		

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.112	Mean	0.421
Maximum	1.2	Median	0.387
SD	0.263	CV	0.625
k hat (MLE)	3.7	k star (bias corrected MLE)	2.898
Theta hat (MLE)	0.114	Theta star (bias corrected MLE)	0.145
nu hat (MLE)	96.21	nu star (bias corrected)	75.34
Adjusted Level of Significance (β)	0.0301		
Approximate Chi Square Value (75.34, α)	56.35	Adjusted Chi Square Value (75.34, β)	54.01
95% Gamma Approximate UCL (use when n>=50)	0.563	95% Gamma Adjusted UCL (use when n<50)	N/A

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.446	SD (KM)	0.339
Variance (KM)	0.115	SE of Mean (KM)	0.171
k hat (KM)	1.732	k star (KM)	1.383
nu hat (KM)	45.03	nu star (KM)	35.97
theta hat (KM)	0.257	theta star (KM)	0.322
80% gamma percentile (KM)	0.696	90% gamma percentile (KM)	0.948
95% gamma percentile (KM)	1.193	99% gamma percentile (KM)	1.751

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (35.97, α)	23.24	Adjusted Chi Square Value (35.97, β)	21.8
95% Gamma Approximate KM-UCL (use when n>=50)	0.69	95% Gamma Adjusted KM-UCL (use when n<50)	0.736

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.864	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.767	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.332	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.425	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.412	Mean in Log Scale	-0.994
SD in Original Scale	0.252	SD in Log Scale	0.438
95% t UCL (assumes normality of ROS data)	0.537	95% Percentile Bootstrap UCL	0.541
95% BCA Bootstrap UCL	0.582	95% Bootstrap t UCL	0.73
95% H-UCL (Log ROS)	0.527		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-0.993	KM Geo Mean	0.371
KM SD (logged)	0.537	95% Critical H Value (KM-Log)	2.156
KM Standard Error of Mean (logged)	0.276	95% H-UCL (KM -Log)	0.598
KM SD (logged)	0.537	95% Critical H Value (KM-Log)	2.156
KM Standard Error of Mean (logged)	0.276		

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	1.166	Mean in Log Scale	-0.135
SD in Original Scale	1.05	SD in Log Scale	0.759
95% t UCL (Assumes normality)	1.685	95% H-Stat UCL	1.997

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	0.75

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Arsenic

General Statistics

Total Number of Observations	18	Number of Distinct Observations	18
		Number of Missing Observations	8
Minimum	2.8	Mean	28.9
Maximum	100	Median	23.2
SD	27.06	Std. Error of Mean	6.378
Coefficient of Variation	0.936	Skewness	1.584

Normal GOF Test

Shapiro Wilk Test Statistic	0.819	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.897	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.206	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.202	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	40	95% Adjusted-CLT UCL (Chen-1995)	41.94
		95% Modified-t UCL (Johnson-1978)	40.39

Gamma GOF Test

A-D Test Statistic	0.493	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.762	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.154	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.209	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Gamma Statistics

k hat (MLE)	1.211	k star (bias corrected MLE)	1.046
Theta hat (MLE)	23.87	Theta star (bias corrected MLE)	27.63
nu hat (MLE)	43.58	nu star (bias corrected)	37.65
MLE Mean (bias corrected)	28.9	MLE Sd (bias corrected)	28.26
		Approximate Chi Square Value (0.05)	24.6
Adjusted Level of Significance	0.0357	Adjusted Chi Square Value	23.59

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	44.23	95% Adjusted Gamma UCL (use when n<50)	46.13

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.911	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.897	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.199	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.202	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	1.03	Mean of logged Data	2.897
Maximum of Logged Data	4.605	SD of logged Data	1.093

Assuming Lognormal Distribution

95% H-UCL	68.66	90% Chebyshev (MVUE) UCL	58.56
95% Chebyshev (MVUE) UCL	70.89	97.5% Chebyshev (MVUE) UCL	88
99% Chebyshev (MVUE) UCL	121.6		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	39.39	95% Jackknife UCL	40
95% Standard Bootstrap UCL	39.09	95% Bootstrap-t UCL	46.51
95% Hall's Bootstrap UCL	66.23	95% Percentile Bootstrap UCL	39.73
95% BCA Bootstrap UCL	43.41		
90% Chebyshev(Mean, Sd) UCL	48.03	95% Chebyshev(Mean, Sd) UCL	56.7
97.5% Chebyshev(Mean, Sd) UCL	68.73	99% Chebyshev(Mean, Sd) UCL	92.36

Suggested UCL to Use

95% Adjusted Gamma UCL	46.13

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Barium

General Statistics

Total Number of Observations	13	Number of Distinct Observations	12
		Number of Missing Observations	6
Minimum	12	Mean	38.4
Maximum	160	Median	26
SD	39.57	Std. Error of Mean	10.98
Coefficient of Variation	1.031	Skewness	2.759

Normal GOF Test

Shapiro Wilk Test Statistic	0.649	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.866	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.252	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.234	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	57.96	95% Adjusted-CLT UCL (Chen-1995)	65.43
		95% Modified-t UCL (Johnson-1978)	59.36

Gamma GOF Test

A-D Test Statistic	0.667	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.746	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.174	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.24	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.814	k star (bias corrected MLE)	1.447
Theta hat (MLE)	21.17	Theta star (bias corrected MLE)	26.54
nu hat (MLE)	47.17	nu star (bias corrected)	37.62
MLE Mean (bias corrected)	38.4	MLE Sd (bias corrected)	31.92
		Approximate Chi Square Value (0.05)	24.57
Adjusted Level of Significance	0.0301	Adjusted Chi Square Value	23.08

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	58.78	95% Adjusted Gamma UCL (use when n<50)	62.59

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.92	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.866	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.124	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.234	Data appear Lognormal at 5% Significance Level

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	2.485	Mean of logged Data	3.348
Maximum of Logged Data	5.075	SD of logged Data	0.735

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Assuming Lognormal Distribution

95% H-UCL	62.33	90% Chebyshev (MVUE) UCL	59.71
95% Chebyshev (MVUE) UCL	70.29	97.5% Chebyshev (MVUE) UCL	84.98
99% Chebyshev (MVUE) UCL	113.8		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	56.45	95% Jackknife UCL	57.96
95% Standard Bootstrap UCL	55.61	95% Bootstrap-t UCL	85.58
95% Hall's Bootstrap UCL	126.1	95% Percentile Bootstrap UCL	57.66
95% BCA Bootstrap UCL	65.03		
90% Chebyshev(Mean, Sd) UCL	71.33	95% Chebyshev(Mean, Sd) UCL	86.24
97.5% Chebyshev(Mean, Sd) UCL	106.9	99% Chebyshev(Mean, Sd) UCL	147.6

Suggested UCL to Use

95% Adjusted Gamma UCL 62.59

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Cadmium

General Statistics

Total Number of Observations	13	Number of Distinct Observations	11
		Number of Missing Observations	13
Number of Detects	6	Number of Non-Detects	7
Number of Distinct Detects	6	Number of Distinct Non-Detects	5
Minimum Detect	0.67	Minimum Non-Detect	0.12
Maximum Detect	1.67	Maximum Non-Detect	0.56
Variance Detects	0.152	Percent Non-Detects	53.85%
Mean Detects	0.945	SD Detects	0.39
Median Detects	0.775	CV Detects	0.412
Skewness Detects	1.685	Kurtosis Detects	2.559
Mean of Logged Detects	-0.115	SD of Logged Detects	0.359

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.782	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.788	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.283	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.325	Detected Data appear Normal at 5% Significance Level	

Detected Data appear Approximate Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.501	KM Standard Error of Mean	0.145
KM SD	0.477	95% KM (BCA) UCL	0.745
95% KM (t) UCL	0.759	95% KM (Percentile Bootstrap) UCL	0.728
95% KM (z) UCL	0.739	95% KM Bootstrap t UCL	0.737
90% KM Chebyshev UCL	0.936	95% KM Chebyshev UCL	1.133
97.5% KM Chebyshev UCL	1.406	99% KM Chebyshev UCL	1.943

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.577	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.698	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.269	**Kolmogorov-Smirnov GOF**	

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

5% K-S Critical Value	0.333	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	8.652	k star (bias corrected MLE)	4.437
Theta hat (MLE)	0.109	Theta star (bias corrected MLE)	0.213
nu hat (MLE)	103.8	nu star (bias corrected)	53.24
Mean (detects)	0.945		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	0.458
Maximum	1.67	Median	0.114
SD	0.534	CV	1.167
k hat (MLE)	0.466	k star (bias corrected MLE)	0.41
Theta hat (MLE)	0.981	Theta star (bias corrected MLE)	1.116
nu hat (MLE)	12.13	nu star (bias corrected)	10.66
Adjusted Level of Significance (β)	0.0301		
Approximate Chi Square Value (10.66, α)	4.36	Adjusted Chi Square Value (10.66, β)	3.803
95% Gamma Approximate UCL (use when n>=50)	1.119	95% Gamma Adjusted UCL (use when n<50)	1.283

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.501	SD (KM)	0.477
Variance (KM)	0.228	SE of Mean (KM)	0.145
k hat (KM)	1.102	k star (KM)	0.899
nu hat (KM)	28.65	nu star (KM)	23.37
theta hat (KM)	0.454	theta star (KM)	0.557
80% gamma percentile (KM)	0.812	90% gamma percentile (KM)	1.184
95% gamma percentile (KM)	1.558	99% gamma percentile (KM)	2.434

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (23.37, α)	13.37	Adjusted Chi Square Value (23.37, β)	12.31
95% Gamma Approximate KM-UCL (use when n>=50)	0.875	95% Gamma Adjusted KM-UCL (use when n<50)	0.951

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.839	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.788	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.245	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.325	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.6	Mean in Log Scale	-0.699
SD in Original Scale	0.418	SD in Log Scale	0.62
95% t UCL (assumes normality of ROS data)	0.807	95% Percentile Bootstrap UCL	0.802
95% BCA Bootstrap UCL	0.82	95% Bootstrap t UCL	0.903
95% H-UCL (Log ROS)	0.903		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-1.195	KM Geo Mean	0.303
KM SD (logged)	1.024	95% Critical H Value (KM-Log)	2.889
KM Standard Error of Mean (logged)	0.311	95% H-UCL (KM -Log)	1.201
KM SD (logged)	1.024	95% Critical H Value (KM-Log)	2.889
KM Standard Error of Mean (logged)	0.311		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.494	Mean in Log Scale	-1.339
SD in Original Scale	0.505	SD in Log Scale	1.26
95% t UCL (Assumes normality)	0.744	95% H-Stat UCL	1.94

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL 0.759

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Chromium

General Statistics

Total Number of Observations	26	Number of Distinct Observations	23
		Number of Missing Observations	0
Minimum	23	Mean	62.6
Maximum	170	Median	60.5
SD	35.63	Std. Error of Mean	6.989
Coefficient of Variation	0.569	Skewness	1.247

Normal GOF Test

Shapiro Wilk Test Statistic	0.882	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.92	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.161	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.17	Data appear Normal at 5% Significance Level	

Data appear Approximate Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	74.54	95% Adjusted-CLT UCL (Chen-1995)	75.92
		95% Modified-t UCL (Johnson-1978)	74.82

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Gamma GOF Test

A-D Test Statistic	0.564	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.749	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.132	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.172	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	3.524	k star (bias corrected MLE)	3.143
Theta hat (MLE)	17.77	Theta star (bias corrected MLE)	19.92
nu hat (MLE)	183.2	nu star (bias corrected)	163.4
MLE Mean (bias corrected)	62.6	MLE Sd (bias corrected)	35.31
		Approximate Chi Square Value (0.05)	134.9
Adjusted Level of Significance	0.0398	Adjusted Chi Square Value	133.1

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	75.86	95% Adjusted Gamma UCL (use when n<50)	76.83

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.938	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.92	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.142	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.17	Data appear Lognormal at 5% Significance Level

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	3.135	Mean of logged Data	3.988
Maximum of Logged Data	5.136	SD of logged Data	0.56

Assuming Lognormal Distribution

95% H-UCL	79.12	90% Chebyshev (MVUE) UCL	84.41
95% Chebyshev (MVUE) UCL	94.25	97.5% Chebyshev (MVUE) UCL	107.9
99% Chebyshev (MVUE) UCL	134.7		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	74.1	95% Jackknife UCL	74.54
95% Standard Bootstrap UCL	74.02	95% Bootstrap-t UCL	77.49
95% Hall's Bootstrap UCL	78.44	95% Percentile Bootstrap UCL	74.52
95% BCA Bootstrap UCL	75.22		
90% Chebyshev(Mean, Sd) UCL	83.57	95% Chebyshev(Mean, Sd) UCL	93.06
97.5% Chebyshev(Mean, Sd) UCL	106.2	99% Chebyshev(Mean, Sd) UCL	132.1

Suggested UCL to Use

95% Student's-t UCL	74.54

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test
When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Cobalt

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	13
Minimum	4.8	Mean	8.396
Maximum	20	Median	7.24
SD	4.894	Std. Error of Mean	1.73
Coefficient of Variation	0.583	Skewness	2.371

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.688	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.35	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	11.67	95% Adjusted-CLT UCL (Chen-1995)	12.79
		95% Modified-t UCL (Johnson-1978)	11.92

Gamma GOF Test

A-D Test Statistic	0.734	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.719	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.284	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.295	Detected data appear Gamma Distributed at 5% Significance Level

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics

k hat (MLE)	4.966	k star (bias corrected MLE)	3.187
Theta hat (MLE)	1.691	Theta star (bias corrected MLE)	2.634
nu hat (MLE)	79.46	nu star (bias corrected)	50.99
MLE Mean (bias corrected)	8.396	MLE Sd (bias corrected)	4.703
		Approximate Chi Square Value (0.05)	35.6
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	32.37

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	12.03	95% Adjusted Gamma UCL (use when n<50)	13.23

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.846	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.253	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	1.569	Mean of logged Data	2.024
Maximum of Logged Data	2.996	SD of logged Data	0.449

Assuming Lognormal Distribution

95% H-UCL	12.3	90% Chebyshev (MVUE) UCL	12.22
95% Chebyshev (MVUE) UCL	14.02	97.5% Chebyshev (MVUE) UCL	16.51
99% Chebyshev (MVUE) UCL	21.41		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	11.24	95% Jackknife UCL	11.67
95% Standard Bootstrap UCL	11.08	95% Bootstrap-t UCL	16.56
95% Hall's Bootstrap UCL	23.48	95% Percentile Bootstrap UCL	11.5
95% BCA Bootstrap UCL	12.64		
90% Chebyshev(Mean, Sd) UCL	13.59	95% Chebyshev(Mean, Sd) UCL	15.94
97.5% Chebyshev(Mean, Sd) UCL	19.2	99% Chebyshev(Mean, Sd) UCL	25.61

Suggested UCL to Use

95% Adjusted Gamma UCL	13.23

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test
When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Copper

General Statistics

Total Number of Observations	18	Number of Distinct Observations	15
		Number of Missing Observations	8
Minimum	7.4	Mean	35.96
Maximum	200	Median	23.5
SD	44.32	Std. Error of Mean	10.45
Coefficient of Variation	1.233	Skewness	3.279

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Normal GOF Test

Shapiro Wilk Test Statistic	0.59	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.897	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.26	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.202	Data Not Normal at 5% Significance Level	

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	54.13	95% Adjusted-CLT UCL (Chen-1995)	61.77
		95% Modified-t UCL (Johnson-1978)	55.47

Gamma GOF Test

A-D Test Statistic	0.815	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.759	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.184	**Kolmogorov-Smirnov Gamma GOF Test**	
5% K-S Critical Value	0.208	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data follow Appr. Gamma Distribution at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.374	k star (bias corrected MLE)	1.182
Theta hat (MLE)	26.17	Theta star (bias corrected MLE)	30.42
nu hat (MLE)	49.45	nu star (bias corrected)	42.54
MLE Mean (bias corrected)	35.96	MLE Sd (bias corrected)	33.07
		Approximate Chi Square Value (0.05)	28.59
Adjusted Level of Significance	0.0357	Adjusted Chi Square Value	27.49

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	53.5	95% Adjusted Gamma UCL (use when n<50)	55.64

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.929	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.897	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.156	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.202	Data appear Lognormal at 5% Significance Level	

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	2.001	Mean of logged Data	3.176
Maximum of Logged Data	5.298	SD of logged Data	0.855

Assuming Lognormal Distribution

95% H-UCL	57.19	90% Chebyshev (MVUE) UCL	55.71
95% Chebyshev (MVUE) UCL	65.72	97.5% Chebyshev (MVUE) UCL	79.61
99% Chebyshev (MVUE) UCL	106.9		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	53.14	95% Jackknife UCL	54.13
95% Standard Bootstrap UCL	52.57	95% Bootstrap-t UCL	77.68
95% Hall's Bootstrap UCL	119.4	95% Percentile Bootstrap UCL	53.58
95% BCA Bootstrap UCL	64.77		
90% Chebyshev(Mean, Sd) UCL	67.3	95% Chebyshev(Mean, Sd) UCL	81.49
97.5% Chebyshev(Mean, Sd) UCL	101.2	99% Chebyshev(Mean, Sd) UCL	139.9

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Suggested UCL to Use

95% Adjusted Gamma UCL 55.64

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test

When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

HEXAVALENT CHROMIUM

General Statistics

Total Number of Observations	21	Number of Distinct Observations	20
Number of Detects	12	Number of Non-Detects	9
Number of Distinct Detects	12	Number of Distinct Non-Detects	8
Minimum Detect	0.2	Minimum Non-Detect	0.22
Maximum Detect	24	Maximum Non-Detect	8
Variance Detects	65.59	Percent Non-Detects	42.86%
Mean Detects	5.797	SD Detects	8.099
Median Detects	2.7	CV Detects	1.397
Skewness Detects	1.839	Kurtosis Detects	2.185
Mean of Logged Detects	0.841	SD of Logged Detects	1.529

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.681	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.859	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.323	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.243	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	3.684	KM Standard Error of Mean	1.469
KM SD	6.397	95% KM (BCA) UCL	6.464
95% KM (t) UCL	6.218	95% KM (Percentile Bootstrap) UCL	6.307
95% KM (z) UCL	6.1	95% KM Bootstrap t UCL	11.1
90% KM Chebyshev UCL	8.091	95% KM Chebyshev UCL	10.09
97.5% KM Chebyshev UCL	12.86	99% KM Chebyshev UCL	18.3

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.386	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.772	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.163	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.256	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.664	k star (bias corrected MLE)	0.554
Theta hat (MLE)	8.725	Theta star (bias corrected MLE)	10.47
nu hat (MLE)	15.95	nu star (bias corrected)	13.29
Mean (detects)	5.797		

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	3.318
Maximum	24	Median	0.25
SD	6.684	CV	2.014
k hat (MLE)	0.268	k star (bias corrected MLE)	0.261
Theta hat (MLE)	12.39	Theta star (bias corrected MLE)	12.7
nu hat (MLE)	11.24	nu star (bias corrected)	10.97
Adjusted Level of Significance (β)	0.0383		
Approximate Chi Square Value (10.97, α)	4.557	Adjusted Chi Square Value (10.97, β)	4.243
95% Gamma Approximate UCL (use when n>=50)	7.988	95% Gamma Adjusted UCL (use when n<50)	8.58

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	3.684	SD (KM)	6.397
Variance (KM)	40.92	SE of Mean (KM)	1.469
k hat (KM)	0.332	k star (KM)	0.316
nu hat (KM)	13.93	nu star (KM)	13.27
theta hat (KM)	11.11	theta star (KM)	11.66
80% gamma percentile (KM)	5.718	90% gamma percentile (KM)	10.79
95% gamma percentile (KM)	16.57	99% gamma percentile (KM)	31.49

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (13.27, α)	6.076	Adjusted Chi Square Value (13.27, β)	5.704
95% Gamma Approximate KM-UCL (use when n>=50)	8.046	95% Gamma Adjusted KM-UCL (use when n<50)	8.57

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.96	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.859	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.103	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.243	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	3.537	Mean in Log Scale	0.127
SD in Original Scale	6.577	SD in Log Scale	1.483
95% t UCL (assumes normality of ROS data)	6.012	95% Percentile Bootstrap UCL	5.967
95% BCA Bootstrap UCL	6.718	95% Bootstrap t UCL	11.58
95% H-UCL (Log ROS)	10.12		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	0.126	KM Geo Mean	1.134
KM SD (logged)	1.547	95% Critical H Value (KM-Log)	3.387
KM Standard Error of Mean (logged)	0.389	95% H-UCL (KM -Log)	12.12
KM SD (logged)	1.547	95% Critical H Value (KM-Log)	3.387
KM Standard Error of Mean (logged)	0.389		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	4.015	Mean in Log Scale	0.442
SD in Original Scale	6.424	SD in Log Scale	1.5
95% t UCL (Assumes normality)	6.433	95% H-Stat UCL	14.57

DL/2 is not a recommended method, provided for comparisons and historical reasons

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

mma Adjusted KM-UCL (use when k<=1 and 15 < n < 50 but k<=1)	8.57

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Iron

General Statistics

Total Number of Observations	8	Number of Distinct Observations	7
		Number of Missing Observations	13
Minimum	11000	Mean	16900
Maximum	36000	Median	15000
SD	7973	Std. Error of Mean	2819
Coefficient of Variation	0.472	Skewness	2.475

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.663	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.37	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	22240	95% Adjusted-CLT UCL (Chen-1995)	24172
		95% Modified-t UCL (Johnson-1978)	22652

Gamma GOF Test

A-D Test Statistic	0.912	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.717	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.32	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.295	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	7.451	k star (bias corrected MLE)	4.74
Theta hat (MLE)	2268	Theta star (bias corrected MLE)	3565
nu hat (MLE)	119.2	nu star (bias corrected)	75.85
MLE Mean (bias corrected)	16900	MLE Sd (bias corrected)	7762
		Approximate Chi Square Value (0.05)	56.79
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	52.63

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	22572	95% Adjusted Gamma UCL (use when n<50)	24353

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.797	**Shapiro Wilk Lognormal GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.294	**Lilliefors Lognormal GOF Test**	
5% Lilliefors Critical Value	0.283	Data Not Lognormal at 5% Significance Level	

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	9.306	Mean of logged Data	9.666
Maximum of Logged Data	10.49	SD of logged Data	0.364

Assuming Lognormal Distribution

95% H-UCL	22628	90% Chebyshev (MVUE) UCL	23194
95% Chebyshev (MVUE) UCL	26130	97.5% Chebyshev (MVUE) UCL	30205
99% Chebyshev (MVUE) UCL	38210		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	21537	95% Jackknife UCL	22240
95% Standard Bootstrap UCL	21318	95% Bootstrap-t UCL	31291
95% Hall's Bootstrap UCL	41897	95% Percentile Bootstrap UCL	22000
95% BCA Bootstrap UCL	23375		
90% Chebyshev(Mean, Sd) UCL	25356	95% Chebyshev(Mean, Sd) UCL	29187
97.5% Chebyshev(Mean, Sd) UCL	34503	99% Chebyshev(Mean, Sd) UCL	44947

Suggested UCL to Use

95% Student's-t UCL	22240	or 95% Modified-t UCL	22652

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Lead

General Statistics

Total Number of Observations	18	Number of Distinct Observations	17
		Number of Missing Observations	8
Minimum	4.4	Mean	31.35
Maximum	150	Median	17
SD	35.15	Std. Error of Mean	8.285
Coefficient of Variation	1.121	Skewness	2.532

Normal GOF Test

Shapiro Wilk Test Statistic	0.702	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.897	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.225	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.202	Data Not Normal at 5% Significance Level	

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	45.76	95% Adjusted-CLT UCL (Chen-1995)	50.26
		95% Modified-t UCL (Johnson-1978)	46.59

Gamma GOF Test

A-D Test Statistic	0.596	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.76	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.164	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.208	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	1.307	k star (bias corrected MLE)	1.126
Theta hat (MLE)	23.99	Theta star (bias corrected MLE)	27.84
nu hat (MLE)	47.04	nu star (bias corrected)	40.54
MLE Mean (bias corrected)	31.35	MLE Sd (bias corrected)	29.54
		Approximate Chi Square Value (0.05)	26.95
Adjusted Level of Significance	0.0357	Adjusted Chi Square Value	25.89

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	47.16	95% Adjusted Gamma UCL (use when n<50)	49.09

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.965	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.897	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.138	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.202	Data appear Lognormal at 5% Significance Level

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	1.482	Mean of logged Data	3.016
Maximum of Logged Data	5.011	SD of logged Data	0.92

Assuming Lognormal Distribution

95% H-UCL	54.77	90% Chebyshev (MVUE) UCL	51.78
95% Chebyshev (MVUE) UCL	61.54	97.5% Chebyshev (MVUE) UCL	75.1
99% Chebyshev (MVUE) UCL	101.7		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	44.98	95% Jackknife UCL	45.76
95% Standard Bootstrap UCL	44.63	95% Bootstrap-t UCL	58.41
95% Hall's Bootstrap UCL	103.4	95% Percentile Bootstrap UCL	44.63
95% BCA Bootstrap UCL	51.27		
90% Chebyshev(Mean, Sd) UCL	56.21	95% Chebyshev(Mean, Sd) UCL	67.46
97.5% Chebyshev(Mean, Sd) UCL	83.09	99% Chebyshev(Mean, Sd) UCL	113.8

Suggested UCL to Use

95% Adjusted Gamma UCL	49.09

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Manganese

General Statistics

Total Number of Observations	8	Number of Distinct Observations	8
		Number of Missing Observations	13
Minimum	130	Mean	231.6
Maximum	360	Median	236
SD	75.27	Std. Error of Mean	26.61
Coefficient of Variation	0.325	Skewness	0.283

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.972	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.131	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	282	95% Adjusted-CLT UCL (Chen-1995)	278.2
		95% Modified-t UCL (Johnson-1978)	282.5

Gamma GOF Test

A-D Test Statistic	0.194	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.715	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.148	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.294	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	10.42	k star (bias corrected MLE)	6.599
Theta hat (MLE)	22.22	Theta star (bias corrected MLE)	35.1
nu hat (MLE)	166.8	nu star (bias corrected)	105.6
MLE Mean (bias corrected)	231.6	MLE Sd (bias corrected)	90.17
		Approximate Chi Square Value (0.05)	82.87
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	77.79

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	295.1	95% Adjusted Gamma UCL (use when n<50)	314.4

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.967	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.152	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level

Data appear Lognormal at 5% Significance Level

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Lognormal Statistics

Minimum of Logged Data	4.868	Mean of logged Data	5.396
Maximum of Logged Data	5.886	SD of logged Data	0.34

Assuming Lognormal Distribution

95% H-UCL	306.4	90% Chebyshev (MVUE) UCL	316
95% Chebyshev (MVUE) UCL	354	97.5% Chebyshev (MVUE) UCL	406.8
99% Chebyshev (MVUE) UCL	510.6		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	275.4	95% Jackknife UCL	282
95% Standard Bootstrap UCL	273.3	95% Bootstrap-t UCL	281.8
95% Hall's Bootstrap UCL	282.5	95% Percentile Bootstrap UCL	271.6
95% BCA Bootstrap UCL	277.5		
90% Chebyshev(Mean, Sd) UCL	311.5	95% Chebyshev(Mean, Sd) UCL	347.6
97.5% Chebyshev(Mean, Sd) UCL	397.8	99% Chebyshev(Mean, Sd) UCL	496.4

Suggested UCL to Use

95% Student's-t UCL 282

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Mercury

General Statistics

Total Number of Observations	8	Number of Distinct Observations	6
		Number of Missing Observations	13
Number of Detects	2	Number of Non-Detects	6
Number of Distinct Detects	2	Number of Distinct Non-Detects	4
Minimum Detect	0.08	Minimum Non-Detect	0.092
Maximum Detect	0.17	Maximum Non-Detect	0.13
Variance Detects	0.00405	Percent Non-Detects	75%
Mean Detects	0.125	SD Detects	0.0636
Median Detects	0.125	CV Detects	0.509
Skewness Detects	N/A	Kurtosis Detects	N/A
Mean of Logged Detects	-2.149	SD of Logged Detects	0.533

Warning: Data set has only 2 Detected Values.
This is not enough to compute meaningful or reliable statistics and estimates.

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test on Detects Only

Not Enough Data to Perform GOF Test

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.0913	KM Standard Error of Mean	0.0149
KM SD	0.0298	95% KM (BCA) UCL	N/A
95% KM (t) UCL	0.119	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	0.116	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	0.136	95% KM Chebyshev UCL	0.156
97.5% KM Chebyshev UCL	0.184	99% KM Chebyshev UCL	0.239

Gamma GOF Tests on Detected Observations Only

Not Enough Data to Perform GOF Test

Gamma Statistics on Detected Data Only

k hat (MLE)	7.367	k star (bias corrected MLE)	N/A
Theta hat (MLE)	0.017	Theta star (bias corrected MLE)	N/A
nu hat (MLE)	29.47	nu star (bias corrected)	N/A
Mean (detects)	0.125		

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.0913	SD (KM)	0.0298
Variance (KM)	8.8594E-4	SE of Mean (KM)	0.0149
k hat (KM)	9.399	k star (KM)	5.957
nu hat (KM)	150.4	nu star (KM)	95.32
theta hat (KM)	0.00971	theta star (KM)	0.0153
80% gamma percentile (KM)	0.12	90% gamma percentile (KM)	0.141
95% gamma percentile (KM)	0.16	99% gamma percentile (KM)	0.2

Gamma Kaplan-Meier (KM) Statistics

		Adjusted Level of Significance (β)	0.0195
Approximate Chi Square Value (95.32, α)	73.8	Adjusted Chi Square Value (95.32, β)	69.02
95% Gamma Approximate KM-UCL (use when n>=50)	0.118	95% Gamma Adjusted KM-UCL (use when n<50)	0.126

Lognormal GOF Test on Detected Observations Only

Not Enough Data to Perform GOF Test

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.0916	Mean in Log Scale	-2.434
SD in Original Scale	0.0333	SD in Log Scale	0.297
95% t UCL (assumes normality of ROS data)	0.114	95% Percentile Bootstrap UCL	0.113
95% BCA Bootstrap UCL	0.124	95% Bootstrap t UCL	0.144
95% H-UCL (Log ROS)	0.115		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-2.432	KM Geo Mean	0.0879
KM SD (logged)	0.249	95% Critical H Value (KM-Log)	1.997
KM Standard Error of Mean (logged)	0.125	95% H-UCL (KM -Log)	0.109
KM SD (logged)	0.249	95% Critical H Value (KM-Log)	1.997
KM Standard Error of Mean (logged)	0.125		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.0713	Mean in Log Scale	-2.74
SD in Original Scale	0.0414	SD in Log Scale	0.429
95% t UCL (Assumes normality)	0.099	95% H-Stat UCL	0.102

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Suggested UCL to Use

95% KM (Chebyshev) UCL	0.156

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Nickel

General Statistics

Total Number of Observations	13	Number of Distinct Observations	12
		Number of Missing Observations	13
Minimum	14	Mean	25.47
Maximum	59	Median	22
SD	11.33	Std. Error of Mean	3.143
Coefficient of Variation	0.445	Skewness	2.396

Normal GOF Test

Shapiro Wilk Test Statistic	0.746	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.866	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.233	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.234	Data appear Normal at 5% Significance Level

Data appear Approximate Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	31.07	95% Adjusted-CLT UCL (Chen-1995)	32.87
		95% Modified-t UCL (Johnson-1978)	31.42

Gamma GOF Test

A-D Test Statistic	0.643	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.735	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.178	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.237	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	7.646	k star (bias corrected MLE)	5.933
Theta hat (MLE)	3.331	Theta star (bias corrected MLE)	4.293
nu hat (MLE)	198.8	nu star (bias corrected)	154.2
MLE Mean (bias corrected)	25.47	MLE Sd (bias corrected)	10.46
		Approximate Chi Square Value (0.05)	126.5
Adjusted Level of Significance	0.0301	Adjusted Chi Square Value	123

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	31.05	95% Adjusted Gamma UCL (use when n<50)	31.95

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.912	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.866	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.155	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.234	Data appear Lognormal at 5% Significance Level

Data appear Lognormal at 5% Significance Level

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Lognormal Statistics

Minimum of Logged Data	2.639	Mean of logged Data	3.171
Maximum of Logged Data	4.078	SD of logged Data	0.356

Assuming Lognormal Distribution

95% H-UCL	31.06	90% Chebyshev (MVUE) UCL	32.85
95% Chebyshev (MVUE) UCL	36.29	97.5% Chebyshev (MVUE) UCL	41.07
99% Chebyshev (MVUE) UCL	50.44		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	30.64	95% Jackknife UCL	31.07
95% Standard Bootstrap UCL	30.45	95% Bootstrap-t UCL	36.25
95% Hall's Bootstrap UCL	53.64	95% Percentile Bootstrap UCL	30.98
95% BCA Bootstrap UCL	33.27		
90% Chebyshev(Mean, Sd) UCL	34.9	95% Chebyshev(Mean, Sd) UCL	39.17
97.5% Chebyshev(Mean, Sd) UCL	45.1	99% Chebyshev(Mean, Sd) UCL	56.74

Suggested UCL to Use

95% Student's-t UCL 31.07

When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test
When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Vanadium

General Statistics

Total Number of Observations	8	Number of Distinct Observations	7
		Number of Missing Observations	13
Minimum	20	Mean	31.66
Maximum	83	Median	24
SD	20.98	Std. Error of Mean	7.416
Coefficient of Variation	0.663	Skewness	2.706

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.558	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.818	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.407	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.283	Data Not Normal at 5% Significance Level	

Data Not Normal at 5% Significance Level

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	45.71	95% Adjusted-CLT UCL (Chen-1995)	51.44
		95% Modified-t UCL (Johnson-1978)	46.9

Gamma GOF Test

A-D Test Statistic	1.386	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.719	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.356	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.295	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	4.43	k star (bias corrected MLE)	2.852
Theta hat (MLE)	7.147	Theta star (bias corrected MLE)	11.1
nu hat (MLE)	70.89	nu star (bias corrected)	45.64
MLE Mean (bias corrected)	31.66	MLE Sd (bias corrected)	18.75
		Approximate Chi Square Value (0.05)	31.14
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	28.14

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	46.4	95% Adjusted Gamma UCL (use when n<50)	51.35

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.681	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.32	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.283	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	2.996	Mean of logged Data	3.338
Maximum of Logged Data	4.419	SD of logged Data	0.454

Assuming Lognormal Distribution

95% H-UCL	46.19	90% Chebyshev (MVUE) UCL	45.77
95% Chebyshev (MVUE) UCL	52.55	97.5% Chebyshev (MVUE) UCL	61.97
99% Chebyshev (MVUE) UCL	80.46		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

95% CLT UCL	43.86	95% Jackknife UCL	45.71
95% Standard Bootstrap UCL	43.21	95% Bootstrap-t UCL	110
95% Hall's Bootstrap UCL	98.74	95% Percentile Bootstrap UCL	45.28
95% BCA Bootstrap UCL	47.64		
90% Chebyshev(Mean, Sd) UCL	53.91	95% Chebyshev(Mean, Sd) UCL	63.99
97.5% Chebyshev(Mean, Sd) UCL	77.98	99% Chebyshev(Mean, Sd) UCL	105.5

Suggested UCL to Use

95% Student's-t UCL	45.71	or 95% Modified-t UCL	46.9

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Zinc

General Statistics

Total Number of Observations	8	Number of Distinct Observations	6
		Number of Missing Observations	13
Minimum	31	Mean	46.79
Maximum	67	Median	45.5
SD	12.51	Std. Error of Mean	4.423
Coefficient of Variation	0.267	Skewness	0.357

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest. For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012). Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.1

Normal GOF Test

Shapiro Wilk Test Statistic	0.915	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.259	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.283	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	55.17	95% Adjusted-CLT UCL (Chen-1995)	54.66
		95% Modified-t UCL (Johnson-1978)	55.26

Gamma GOF Test

A-D Test Statistic	0.45	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.716	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.265	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.294	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	16.08	k star (bias corrected MLE)	10.14
Theta hat (MLE)	2.909	Theta star (bias corrected MLE)	4.616
nu hat (MLE)	257.3	nu star (bias corrected)	162.2
MLE Mean (bias corrected)	46.79	MLE Sd (bias corrected)	14.7
		Approximate Chi Square Value (0.05)	133.7
Adjusted Level of Significance	0.0195	Adjusted Chi Square Value	127.2

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	56.74	95% Adjusted Gamma UCL (use when n<50)	59.66

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.921	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.818	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.245	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.283	Data appear Lognormal at 5% Significance Level

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	3.434	Mean of logged Data	3.814
Maximum of Logged Data	4.205	SD of logged Data	0.268

Appendix G - 95% UCL Output

UCL Statistics for Data Sets with Non-Detects

Assuming Lognormal Distribution

95% H-UCL	57.69	90% Chebyshev (MVUE) UCL	60.15
95% Chebyshev (MVUE) UCL	66.2	97.5% Chebyshev (MVUE) UCL	74.61
99% Chebyshev (MVUE) UCL	91.11		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	54.06	95% Jackknife UCL	55.17
95% Standard Bootstrap UCL	53.39	95% Bootstrap-t UCL	56.32
95% Hall's Bootstrap UCL	53.48	95% Percentile Bootstrap UCL	53.81
95% BCA Bootstrap UCL	53.7		
90% Chebyshev(Mean, Sd) UCL	60.06	95% Chebyshev(Mean, Sd) UCL	66.07
97.5% Chebyshev(Mean, Sd) UCL	74.41	99% Chebyshev(Mean, Sd) UCL	90.8

Suggested UCL to Use

95% Student's-t UCL	55.17

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Honeywell
THE POWER OF CONNECTED

APPENDIX H
BIRD AND MAMMAL LOEC DERIVATIONS

Table H-1. Antimony - Mammals
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053

Result #	Reference	Ref No.	Test Organism	# of Conc/ Doses	Method of Analyses	Route of Exposure	Exposure Duration	Duration Units	Age	Age Units	Lifestage	Sex	General Effect Group	Effect Measure	Response Site	NOAEL Dose (mg/kg/day)	LOAEL Dose (mg/kg/day)	Data Evaluation Score
Reproduction (R)																		
12	Rossi et al., 1987	231	Rat (Rattus norvegicus)	3	U	D	31	d	N	N	GE	F	REP	PRWT	W	0.0590	0.590	78
Growth (G)																		
16	Poon et al., 1998	224	Rat (Rattus norvegicus)	5	UX	D	13	w	7	w	JV	M	GRO	BDW	W	5.60	42.0	82
18	Dieter, 1992	3780	Mouse (Mus musculus)	6	U	D	14	d	8	w	JV	F	GRO	BDW	W	106	161	84
Survival (S)																		
25	Dieter, 1992	3780	Mouse (Mus musculus)	6	U	D	14	d	8	w	JV	M	MO	MOR	W	108	161	84
26	Gurnani et al., 1993	225	Mouse (Mus musculus)	4	U	G	21	d	8	w	JV	M	MO	MOR	W	557	835	91

ALPH = alkaline phosphatase; AD = adult; B = both; BDWT = body weight changes; BEH = behavior; BIO = biochemical; BL = blood; BLPR = blood pressure; CHOL = cholesterol; d = days; DR = drinking water; EXCR = excretion; F=female; FD = food; FDB = feeding behavior; GE = gestational; GHIS = general histology; GLUC = glucose; GRO = Growth; GV=gavage; HYPL = hyperplasia; IM = immature; JV=juvenile; KI = kidney; kg = kilogram; lf = lifetime; LI = liver; l = liter; LOAEL = lowest- observed adverse effect level; M = measured; M=male; mg = milligram; MOR = mortality; MORT = mortality; N = no; NOAEL = no-observed adverse effect level; NR not reported; ORWT = organ weight; PHY = physiology; PRWT = progeny weight; PTH = pathology; REP = reproduction; Score = Total Data Evaluation Score as describe in US EPA (2003; Attachment 4-3); SPCV= sperm cell count; SR = serum; SURV = survival; TDTH = time to death; Y = yes; U = unmeasured; UX = reported as measured but data not provided; w = weeks; WCON = water consumption; WO = whole organism.

Only bounded LOAELs for S,G, & R are shown.

Geomean of Bounded G,R LOAELs: 15.9

Table H-2. Arsenic - Birds
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053

Result #	Reference	Ref No.	Test Organism	# of Conc/ Doses	Method of Analyses	Route of Exposure	Exposure Duration	Duration Units	Age	Age Units	Lifestage	Sex	Effect Type	Effect Measure	Response Site	NOAEL Dose (mg/kg bw/day)	LOAEL Dose (mg/kg bw/day)	Data Evaluation Score
Reproduction (R)																		
Growth (G)																		
9	Holcman and Stibilj, 1997	5305	Chicken (*Gallus domesticus*)	4	U	FD	19	d	49	w	SM	F	GRO	BDWT	WO	2.24		66
10	Camardese et al, 1990	5747	Mallard duck (*Anas platyrhynchos*)	4	UX	FD	2	w	1	d	JV	F	GRO	GGRO	WO		1.49	83
11	Howell and Hill, 1978	1387	Chicken (*Gallus domesticus*)	2	U	FD	21	d	1	d	JV	B	GRO	BDWT	WO		3.55	76
12	Hoffman et al, 1992	1376	Mallard duck (*Anas platyrhynchos*)	2	UX	FD	4	w	1	d	JV	B	GRO	BDWT	WO		17.3	82
Survival (S)																		

ACHE = acetylcholinesterase; ACTV = general activity levels; B = both; BDWT = body weight changes; BEH = behavior; BR = brain; d = days; ENZ = enzyme changes; F = female; FCNS = food consumption; FD = food; FDB = feeding behavior; GGRO = general growth changes; GRO = growth; GLPX = gluathione peroxidase; JV = juvenile; LB = laying bird; LI = liver; LOAEL = lowest observed adverse effect level; MOR = mortality, MORT = mortality; NOAEL = no observed adverse effect level; NR = Not reported; ORW = organ weight changes; ORWT = organ weight; PL = plasma; PROG = progeny counts; REP = reproduction; SM = sexually mature; SURV = survival; U = unmeasured; UX = measured but results not reported; w = weeks; WO = whole organism

Only Growth LOAELs are available

No bounded LOAELs

Geomean of Unbounded Growth LOAELs | 4.5 |

Table H-3. Arsenic - Mammals
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053

Result #	Reference	Ref No.	Test Organism	# of Conc/ Doses	Method of Analyses	Route of Exposure	Exposure Duration	Duration Units	Age	Age Units	Lifestage	Sex	Effect Type	Effect Measure	Response Site	NOAEL Dose (mg/kg bw/day)	LOAEL Dose (mg/kg bw/day)	Total
Reproduction (R)																		
77	Nemec et al, 1998	15057	Rabbit (*Oryctolagus cuniculus*)	4	M	GV	12	d	NR	NR	GE	F	REP	RSEM	WO	0.750	3.0	90
79	Nemec et al, 1998	15057	Mouse (*Mus musculus*)	4	M	GV	9	d	NR	NR	GE	F	REP	PROG	WO	24.0	48.0	92
Growth (G)																		
89	Neiger and Osweiler 1989	14583	Dog (*Canis familiaris*)	4	U	FD	8	w	8	mo	JV	F	GRO	BDWT	WO	1.04	1.66	87
93	Byron et al, 1967	2	Dog (*Canis familiaris*)	5	U	FD	2	yr	6	mo	JV	B	GRO	BDWT	WO	2.25	5.62	82
95	Fowler and Woods 1979	15358	Mouse (*Mus musculus*)	4	U	DR	6	w	NR	NR	JV	M	GRO	BDWT	WO	2.84	5.69	78
98	Fowler et al., 1977	14569	Rat (*Rattus norvegicus*)	4	U	DR	6	w	NR	NR	JV	M	GRO	BDWT	WO	4.43	9.42	78
101	Benese and Bencko, 1981	15288	Mouse (*Mus musculus*)	4	U	DR	32	d	NR	NR	JV	M	GRO	BDWT	WO	6.43	32.4	77
104	Brown et al., 1976	4	Rat (*Rattus norvegicus*)	4	U	DR	6	w	NR	NR	JV	M	GRO	BDWT	WO	9.40	10.7	78
105	Byron et al, 1967	2	Rat (*Rattus norvegicus*)	6	U	FD	12	w	NR	NR	JV	B	GRO	BDWT	WO	9.84	19.7	83
106	Byron et al, 1967	2	Rat (*Rattus norvegicus*)	6	U	FD	12	w	NR	NR	JV	M	GRO	BDWT	WO	10.3	20.6	83
Survival (S)																		
120	Nemec et al, 1998	15057	Rabbit (*Oryctolagus cuniculus*)	4	M	GV	12	d	NR	NR	GE	F	MOR	MORT	WO	0.750	3.00	89
124	Byron et al, 1967	2	Dog (*Canis familiaris*)	5	U	FD	2	yr	6	mo	JV	B	MOR	MORT	WO	2.25	5.62	83
125	Byron et al, 1967	2	Dog (*Canis familiaris*)	5	U	FD	13.5	mo	6	mo	JV	B	MOR	MORT	WO	2.25	5.62	83
126	Nemec et al, 1998	15057	Rabbit (*Oryctolagus cuniculus*)	6	M	GV	12	d	NR	NR	GE	F	MOR	MORT	WO	2.25	4.50	91
128	Kiyono et al, 1974	15427	Rat (*Rattus norvegicus*)	4	U	GV	21	d	1	d	JV	M	MOR	MORT	WO	5.0	7.5	91
131	Byron et al, 1967	2	Rat (*Rattus norvegicus*)	6	U	FD	78	w	NR	NR	JV	B	MOR	SURV	WO	9.65	19.3	84
132	Byron et al, 1967	2	Rat (*Rattus norvegicus*)	6	U	FD	2	yr	NR	NR	JV	B	MOR	SURV	WO	9.99	20.0	84
133	Nemec et al, 1998	15057	Mouse (*Mus musculus*)	4	M	GV	9	d	NR	NR	GE	F	MOR	MORT	WO	24.0	48.0	91

ACHE = acetylcholinesterase; ACTP = accuracy of learned behavior; ACTV = activity, general; AD = adult; AR = adrenal; ASAT = aspartate aminotransferase; B = both; BDWT = body weight changes; BEH = behavior; BL = blood; BLPR = blood pressure; BR = brain; bw = body weight; CHM = chemical changes; CHOL = cholesterol; d - day; DOPA = dopamine; DR = Drinking water; ENZ = enyzme level changes; EXCR = excretion; F = female; FCNS = food consumption; FD = food; FDB = feeding behavior; GBCM = general biochemical changes; GE = gestation; GENZ = general enzyme changes; GHIS = general histology; GLPX = glutathione peroxidase; GPHY = general pysiology changes; GRO = growth; GRS = gross body weight changes; GV = gavage; HA = hair; HE = heart; HIS = histological changes;HMGL = hemoglobin; HRM = hormone changes; JV = juvenile; kg = kilograms; KI = kidney; L = liter; LI = liver; LOAEL = lowest observed adverse effect level; mo = months; M = male; M = measured; MOR = effects on mortality and survival; MORT = mortality; NOAEL = No Observed Advese Effect Level; NR = Not reported; OR = other oral; ORW = organ weight changes; ORWT = organ weight changes; PHY = physiology; PL = plasma; PORP = porphyrin; PROG = progeny numbers/counts; PRWT = progeny weight; PTH = pathology; RBCE = red blood cell count; REP = reproduction; RPRT = respiratory rate; RSEM = resorbed embryo; SM = sexually mature; SMIX = weight relative to body weight; SP = spleen; SR = serum; SURV = survival; TE = testes; TEWT = testes weight; TRII = tridothyronine; TRYP = tryptophan; U = unmeasured; UR = urine; USTR = ultrastructural changes; UX = measured but values not reported; w = weeks; WCON = water consumption; WO = whole organism; yr = year.

Only bounded LOAELs for S,G, & R are shown.

Geomean of Bounded G,R LOAELs: 10.0

Table H-4. Cadmium - Birds
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053

Result #	Reference	Ref No.	Test Organism	# of Conc/ Doses	Method of Analyses	Route of Exposure	Exposure Duration	Duration Units	Age	Age Units	Lifestage	Sex	General Effect Group	Effect Measure	Response Site	NOAEL Dose (mg/kg/day)	LOAEL Dose (mg/kg/day)	Data Evaluation Score
Reproduction (R)																		
44	Leach et al, 1978	398	Chicken (Gallus domesticus)	2	U	FD	12	w	8	mo	LB	F	REP	EGPN	W	0.593	2.37	82
45	Leach et al, 1978	398	Chicken (Gallus domesticus)	3	U	FD	12	mo	6	mo	LB	F	REP	PROG	W	0.593	2.37	82
46	Bokori et al, 1996	375	Chicken (Gallus domesticus)	1	U	FD	39	w	14	d	IM	M	REP	TEW	TE	0.799	2.40	85
47	White and Finley, 1978	396	Mallard (Anas platyrhychos)	1	M	FD	90	d	1	yr	AD	F	REP	Other	NR	1.53	21.1	83
48	White et al 1978	399	Mallard (Anas platyrhynchos)	1	M	FD	90	d	1	yr	AD	B	REP	TEW	TE	1.53	21.1	87
Growth (G)																		
56	Lefevre et al, 1982	392	Chicken (Gallus domesticus)	3	U	FD	5	w	1	d	JV	N	GRO	BDW	W	0.708	7.08	82
57	Leach et al, 1978	398	Chicken (Gallus domesticus)	4	U	FD	6	w	1	d	JV	M	GRO	BDW	W	0.826	3.30	81
61	Hill 1979	397	Chicken (Gallus domesticus)	4	U	FD	2	w	1	d	JV	F	GRO	BDW	W	1.72	3.44	82
62	Hill, 1974	92	Chicken (Gallus domesticus)	6	U	FD	2	w	1	d	JV	B	GRO	BDW	W	1.72	3.44	82
67	Di Giulio and Scanlon,	183	Mallard (Anas platyrhychos)	4	U	FD	42	d	11	mo	JV	M	GRO	BDW	W	12.5	37.6	84
Survival (S)																		
84	Pritzl et al, 1974	403	Chicken (Gallus domesticus)	5	U	FD	20	d	2	w	JV	M	MO	MOR	W	9.57	14.3	84
88	Bokori, et al, 1995	379	Japanese Quail (Coturnix	4	U	FD	37	d	N	N	SM	F	MO	MOR	W	15.3	30.6	84
91	Bokori et al, 1995	378	Chicken (Gallus domesticus)	4	U	FD	4	w	21	d	JV	M	MO	MOR	W	22.3	44.6	84

ACTV = general activity levels; AD = adult; AR = adrenal gland; B = both; BDWT = body weight changes; BEH = behavior; BL = blood; BR = brain; CHM = chemical changes; CYTC = NADPH cytochrome C reductase; d = days; DR = Drinking water; EGPN = egg production; ENZ = enzyme changes; F = female; FCNS = food consumption; FD = food; FDB = feeding behavior; FDCV =food conversion efficiency; FE = feathers; FEFF = feed efficiency; GCHM = general biochemical; GE = gestation; GHIS = general histology; GRO = growth; GLBM = glomerular basement membrane; GLPX = gluathione peroxidase; GLSN = gross lesions; GLTH = glutathione; GRS = gross wasting; GSTR = glutathione S-transferase; HE = heart; HIS = histology; HMCT = hematocrit; HMGL = hemoglobin; IN = intestine; JV = juvenile; KI = kidney; LB = laying bird; LI = liver; LOAEL = lowest observed adverse effect level; LU= lung; M = male; M = measured; m = months; MA = mature; MOR = mortality, MORT = mortality; MU = multiple; NCRO = necrosis; NEFA = fatty acids, nonesterified; NOAEL = no observed adverse effect level; NPHR = nephrosis; NR = Not reported; OR = other oral; ORW = organ weight changes; ORWT = organ weight; PHY = physiology; PROG = progeny counts; PS = pancreas; REP = reproduction; SM = sexually mature; SMIX = weight relative to body weight; SURV
URIC = uric acid; w = weeks; WCON = water consumption; WO = whole organism

Only bounded LOAELs for S,G, & R are shown.

Geomean of Bounded G,R LOAELs: **6.019**

Table H-5. Cadmium - Mammals
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053

Result #	Reference	Ref No.	Test Organism	# of Conc/ Doses	Method of Analyses	Route of Exposure	Exposure Duration	Duration Units	Age	Age Units	Lifestage	Sex	General Effect Group	Effect Measure	Response Site	NOAEL Dose (mg/kg/day)	LOAEL Dose (mg/kg/day)	Data Evaluation Score
Reproduction (R)																		
164	Webster, 1988	525	Mouse (Mus musculus)	4	U	D	60	d	8	w	GE	F	REP	PRWT	W	0.0939	15.6	76
165	Sorell and Braziano,	822	Rat (Rattus norvegicus)	4	U	D	14	d	N	N	GE	F	REP	PRWT	W	0.651	4.88	78
167	Sutou, et al, 1980	443	Rat (Rattus norvegicus)	4	U	G	6	w	5	w	GE	F	REP	Other	W	1.00	10.0	85
168	Sutou et al, 1980	647	Rat (Rattus norvegicus)	4	U	G	6	w	5	w	GE	F	REP	RSEM	W	1.00	10.0	90
169	Sawicka-Kapusta et al	694	Mouse (Mus musculus)	4	U	FD	6	d	N	N	GE	F	REP	DEYO	W	1.14	2.28	84
170	Ahokas et al 1980	669	Rat (Rattus norvegicus)	4	U	D	21	d	N	N	GE	F	REP	PRWT	W	1.57	4.50	79
172	Baranski and Sitarek,	809	Rat (Rattus norvegicus)	5	U	G	7	w	3	mo	JV	F	REP	GREP	W	4.00	40.0	85
174	Zielinska-Psuja et al,	569	Rat (Rattus norvegicus)	3	U	FD	3	mo	N	N	JV	M	REP	TEWT	TE	5.40	54.0	83
175	Sasser et al, 1985	9321	Rat (Rattus norvegicus)	4	U	D	21	d	5	mo	GE	F	REP	PRWT	W	6.00	10.0	81
176	Machemer and Lorke,	560	Rat (Rattus norvegicus)	5	U	G	9	d	4	mo	GE	F	REP	FERT	W	6.13	18.4	92
184	Wardell et al., 1982	748	Rat (Rattus norvegicus)	5	U	G	12	d	N	N	GE	F	REP	RSEM	W	50.0	75	92
Growth (G)																		
204	Merali and Singhal, 1980	639	Rat (Rattus norvegicus)	3	U	G	7	d	1	d	JV	M	GRO	BDW	W	0.100	1.0	88
205	Rastogi et al 1977	753	Rat (Rattus norvegicus)	3	U	G	30	d	1	d	JV	N	GRO	BDW	W	0.100	1.0	83
207	Ahokas et al 1980	669	Rat (Rattus norvegicus)	4	U	D	21	d	N	N	GE	F	GRO	BDW	W	0.207	1.6	75
208	Cousins et al 1977	670	Rat (Rattus norvegicus)	3	U	FD	14	w	N	N	JV	M	GRO	BDW	W	0.268	1.3	82
210	Baranski and Sitarek,	809	Rat (Rattus norvegicus)	5	U	G	12	w	3	mo	JV	F	GRO	BDW	W	0.400	4.0	83
211	Doyle et al, 1974	3703	Sheep (Ovis aires)	5	U	FD	163	d	4	mo	JV	M	GRO	BDW	W	0.448	0.909	80
214	Ogoshi et al., 1989	720	Rat (Rattus norvegicus)	3	U	D	4	w	21	d	JV	F	GRO	BDW	W	0.581	1.2	77
216	Perry et al, 1977	3730	Rat (Rattus norvegicus)	7	U	D	24	mo	21	d	JV	F	GRO	BDW	W	0.645	1.6	74
217	Yuhas et al 1979	776	Rat (Rattus norvegicus)	4	U	D	2	w	35	d	JV	M	GRO	BDW	W	0.770	7.70	72
220	Sutou, et al, 1980	443	Rat (Rattus norvegicus)	4	U	G	6	w	5	w	GE	F	GRO	BDW	W	1.00	10.0	83
221	Takashima et al 1980	563	Rat (Rattus norvegicus)	4	U	FD	19	mo	N	N	JV	M	MPH	GMP	BO	1.04	5.2	81
222	Bhattacharyya et al, 1988	626	Mouse (Mus musculus)	3	U	FD	252	d	68	d	GE	F	GRO	BDW	W	1.08	10.8	82
225	Machemer and Lorke,	560	Rat (Rattus norvegicus)	5	U	G	9	d	2	mo	GE	F	GRO	BDW	W	1.84	6.13	88
229	Yuyama 1982	710	Rat (Rattus norvegicus)	4	U	FD	2	w	5	w	JV	M	GRO	BDW	W	2.65	10.6	82
231	Lee et al., 1994	733	Rat (Rattus norvegicus)	4	U	G	8	w	60	d	JV	M	GRO	BDW	W	3.00	10.0	88
232	Mitsumori et al., 1998	591	Rat (Rattus norvegicus)	5	U	FD	4	d	5	w	JV	F	GRO	BDW	W	3.08	15.4	82
234	Cousins et al., 1973	502	Pig (Sus scrofa)	5	U	FD	6	w	55	d	JV	M	GRO	BDW	W	4.05	12.1	84
235	Chetty et al, 1980	650	Rat (Rattus norvegicus)	4	U	FD	4	w	N	N	JV	M	GRO	BDW	W	4.36	8.71	83
236	Koller and Roan, 1977	814	Mouse (Mus musculus)	4	U	D	70	d	28	d	JV	N	GRO	BDW	W	4.44	44.4	76
239	Zielinska-Psuja et al,	569	Rat (Rattus norvegicus)	3	U	FD	3	mo	N	N	JV	M	GRO	BDW	W	5.40	54.0	81
241	Gustafson and Mercer,	551	Rat (Rattus norvegicus)	7	U	FD	21	d	N	N	JV	M	GRO	BDW	W	6.06	15.2	83
245	Ogoshi et al., 1989	720	Rat (Rattus norvegicus)	6	U	D	4	w	24	w	AD	N	GRO	BDW	W	8.54	17.1	77
255	Exon et al., 1979	3847	Mouse (Mus musculus)	5	U	D	6	w	N	N	JV	M	GRO	BDW	W	43.0	85.9	73
256	Hamada et al, 1991	465	Dog (Canis familiaris)	6	U	FD	9	yr	6-8	mo	JV	B	GRO	BDW	W	50.0	100	87
Survival (S)																		
287	Swiergosz et al 1998	506	Bank vole (Clethrionomys	3	U	FD	6	mo	5	mo	JV	M	MO	MOR	W	1.87	4.99	84
291	Baranski and Sitarek,	809	Rat (Rattus norvegicus)	5	U	G	13	w	3	mo	JV	F	MO	MOR	W	4.00	40.0	84
301	Weber and Reid 1969	677	Mouse (Mus musculus)	4	U	FD	3	w	N	N	JV	B	MO	MOR	W	571	2160	83

Table H-5. Cadmium - Mammals
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053

Result #	Reference	Ref No.	Test Organism	# of Conc/ Doses	Method of Analyses	Route of Exposure	Exposure Duration	Duration Units	Age	Age Units	Lifestage	Sex	General Effect Group	Effect Measure	Response Site	NOAEL Dose (mg/kg/day)	LOAEL Dose (mg/kg/day)	Data Evaluation Score

AATT= alanine aminotransferase; ACPH = acid phosphatase; ACTP = accuracy of learned behavior; AD = adult; ALAD = (delta) -aminolevulinic acid dehydrogenase; ALPH = alkaline phosphatase; AVO = avoidance; B = both; BL = blood; BDWT = body weight changes; BEH = behavior; BL = blood; BLPR = blood pressure; BO = bone; BR = brain; bw = body weight; CALC = calcium; CHM = chemical changes; CREA = creatinine; d- day; DEYO = death of young; DR = Drinking water; DVP = development; ENZ = enyzme level changes; EY= eye; F = female; FCNS = food consumption; FD = food; FDB = feeding behavior; FDCV = food conversion efficiency; FERT = fertility; FM = femur; FOOD = food avoidance; G6PG = glucose-6-phosphate dehydrogenase; GBCM = general biochemical changes; GBHV = general behavioral changes; GDVP = general development; GE = gestation; GENZ = general enzyme changes; GHIS = general histology; GLUC = glucose; GLSN = gross lesions; GMPH = general morphology; GPHY = general pysiology changes; GPTR = glutamic pyruvic transaminase; GREP = general reproductive effect; GRO = growth; GRS = gross body weight changes; GV = gavage; HE = heart; HIS = histological changes; HMCT = hematocrit; HMGL = hemoglobin; HRTR = heart rate; HYDR = hydration; HRM = hormone changes; IN = intestinal tract; JV = juvenile; kg = kilograms; KI = kidney; L = liter; LADH = lactate dehydrogenase; LI = liver; LOAEL = lowest observed adverse effect level; mo = months; M = male; M = measured; MA = mature; MADH = malic dehydrogenase; MCPR = microsomal proteins; MEEN = metabolizable energy; MOR = effects on mortality and survival; MORT = mortality; MPH = morphology; NCRO = necrosis; NEUT = neutrophil; NMVM = number of movements; NOAEL = No Observed Advese Effect Level; NORE = norephinephrine; NPHR = nephrosis; NR = Not reported; ODVP = offspring development; OR = other oral; ORW = organ weight changes; ORWT = organ weight changes; P450 = changes in cytochrome P450; PCLV = packed cell volume; PHOS = phosphate; PHST = phospholipid content, total; PHY = physiology; PL = plasma; POTA = potassium; PRFM = sexual performance; PROG = progeny numbers/counts; PRTL = protein level; PRWT = progeny weight; PTH = pathology; RBCE = red blood cell count; REP = reproduction; RRSP = righting response; RSEM = resorbed embryos; SCDH = succinate dehydrogenase; SM = sperm; SM = sexually mature; SMIX = weight relative to body weight; SODI = sodium; SPCL = sperm cell counts; SR = serum; STIM = response to stimulus; SURV = survival; TB = tibia; TDTH = time to death; TE = testes; TSTR = testosterone; TEWT = testes weight; TSTR = testosterone; U = unmeasured; UR = urine; UX = measured but values not reported; w = weeks; WCON = water consumption; WO = whole organism; YO = young; yr = year.

Only bounded LOAELs for S,G, & R are shown.

Geomean of Bounded G,R LOAELs: 8.7

Table H-6. Chromium - Birds
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053

Result #	Reference	Ref No.	Test Organism	# of Conc/ Doses	Method of Analyses	Route of Exposure	Exposure Duration	Duration Units	Age	Age Units	Lifestage	Sex	General Effect Group	Effect Measure	Response Site	NOAEL Dose (mg/kg/day)	LOAEL Dose (mg/kg/day)	Data Evaluation Score
Reproduction (R)																		
14	Haseltine et al., unpublished	3739	Black duck (*Anas rubripes*)	3	U	FD	180	d	N	N	LB	F	REP	RSUC	WO	0.569	2.78	78
17	Meluzzi et al., 1996	2771	Chicken (*Gallus domesticus*)	4	U	FD	15	d	22	w	LB	F	EGG	ALW	EG	37.7	75.4	81
Growth (G)																		
Survival (S)																		
26	Haseltine et al., unpublished	3739	Black duck (*Anas rubripes*)	3	U	FD	10	m	N	N	M	M	MO	MOR	WO	0.557	2.78	77

AD = adult; ALWT = albumin weight; B = both sexes; BDWT = body weight changes; BL = blood; CHM = chemical changes; d = days; EG = egg; EGG = effects on eggs; ENZ = enzyme changes; ESQU = eggshell quality; F= female; FCNS = food comsumption; FD =food; FDB = feeding behavior; FDCV = feed conversion efficiency; GENZ = general enzyme changes; GLUC = glucose; GRO= growth; JV = juvenile; LB = laying bird; LI = liver; m = months; M = male; MA = mature; MOR = effects on survival; MORT = mortality; NR = not reported; ORW = organ weight changes; ORWT = Organ weight changes; PHY = physiology; REP = reproductive effects; RSUC = reproductive success; SL = spleen; SM = sexually mature; TPRD = total production; U = unmeasured; w = weeks; WO = whole organism.

Only bounded LOAELs for S,G, & R are shown.
No bounded G LOAELs
Geomean of Bounded R LOAELs 14.48

Table H-7. Chromium - Mammals
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053

Result #	Reference	Ref No.	Test Organism	# of Conc/ Doses	Method of Analyses	Route of Exposure	Exposure Duration	Duration Units	Age	Age Units	Lifestage	Sex	Effect Type	Effect Measure	Response Site	NOAEL Dose (mg/kg bw/day)	LOAEL Dose (mg/kg bw/day)	Data Evaluation Score
Reproduction (R)																		
28	Chowdhury and Mitra, 1995	3020	Rat (*Rattus*	4	U	G	90	d	N	N	JV	M	REP	TEW	TE	20.0	40.0	92
31	Junaid et al., 1996	3047	Mouse (*Mus*	4	U	D	8	d	N	N	G	F	REP	PRO	W	44.2	82.9	80
32	Elbetieha and Al-Hamood,	3025	Mouse (*Mus*	5	U	D	12	w	50	d	JV	M	REP	TEW	TE	49.4	98.7	80
Growth (G)																		
45	R.O.W. Sciences, Inc.	25927	Mouse (*Mus*	5	U	F	3	w	9	w	JV	F	GRO	BDW	W	5.66	12.0	92
47	R.O.W.Sciences Inc, 1997	25926	Mouse (*Mus*	4	U	F	16	w	10	w	LC	F	GRO	BDW	W	13.8	28.0	92
48	Chowdhury and Mitra, 1995	3020	Rat (*Rattus*	4	U	G	90	d	N	N	JV	M	GRO	BDW	W	20.0	40.0	90
49	Kanojia et al., 1998	3050	Rat (*Rattus*	4	U	D	3	m	50	d	JV	F	GRO	BDW	W	33.2	60.6	78
50	Junaid et al., 1995	3045	Mouse (*Mus*	4	U	D	6	d	4	m	G	F	GRO	BDW	W	33.7	67.4	78
51	Trivedi et al., 1989	31	Mouse (*Mus*	4	U	D	19	d	N	N	G	F	GRO	BDW	W	40.5	82.8	79
53	Junaid et al., 1996	3047	Mouse (*Mus*	4	U	D	8	d	N	N	G	F	GRO	BDW	W	44.2	82.9	78
54	Junaid et al., 1996	3046	Mouse (*Mus*	4	U	D	20	d	4	m	G	F	GRO	BDW	W	84.0	123	78
Survival (S)																		
66	Kanojia et al., 1998	3050	Rat (*Rattus*	4	U	D	3	m	[50]	d	JV	F	MO	MOR	W	33.2	60.6	79
68	Junaid et al., 1996	3046	Mouse (*Mus*	4	U	D	20	d	4	m	S	F	MO	MOR	W	82.1	121	79

AD = adult; AGGT = agression; ALBM = albumins; B = both; BEH = behavior; BDWT = body weight changes; BEH = behavior; BL = blood; CHM = chemical changes; d = days; DR = drinking water; EXCR = excretion; F = female; FCNS = food consumption; FD = food; FDB = feeding behavior; GE = gestational; GHIS = general histology; GLUC = glucose; GREP = general reproduction; GRO = growth; GRS = gross body weight changes; GV = gavage; HIS = histology; HMGL = hemoglobin; HRM = hormone changes; JV = juvenile; KI = kidney; LC = lactation; LI = liver; M = male; M = measured; MCPV = mean corpuscular volume; mo = months; MOR = mortality; MORT = mortality; MT = multiple; NCRO = necrosis; NR = not reported; ORW = organ weight changes ORWT = organ weight changes (absolute); OV = oviduct; PHY = physiology; PROG = progeny counts or numbers; PRWT = progeny weight; REP = reproduction; RSEM = resorbed embryos; SM = sexually mature; SM = sperm;SMIX = weight relative to body weight; SPCL = sperm cell counts; SR = serum; TE = testes; TEDG = testes degeneration; TEWT = testes weight; TSTR = testosterone; U = unmeasured; UR = urine; UX = measured but concentrations not reported; w = weeks; WCON = water consumption; WO = whole organism;

Only bounded LOAELs for S,G, & R are shown.

Geomean of Bounded G,R LOAELs: 55.4

Table H-8. Copper - Birds
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053

Result #	Reference	Ref No.	Test Organism	# of Conc/ Doses	Method of Analyses	Route of Exposure	Exposure Duration	Duration Units	Age	Age Units	Lifestage	Sex	Effect Type	Effect Measure	Response Site	NOAEL Dose (mg/kg bw/day)	LOAEL Dose (mg/kg bw/day)	Total
Reproduction (R)																		
191	Ankari et al, 1998	2006	Chicken (*Gallus domesticus*)	4	U	FD	84	d	25	w	LB	F	REP	EGPN	WO	4.05	12.1	80
192	Harms and Buresh 1986	2117	Chicken (*Gallus domesticus*)	3	U	FD	6	w	64	w	LB	F	REP	EGPN	WO	13.9	19.5	85
193	Jackson and Stevenson, 1981	2158	Chicken (*Gallus domesticus*)	6	U	FD	280	d	18	w	LB	F	EGG	EGWT	EG	15.6	23.3	86
194	Stevenson et al, 1983	6170	Chicken (*Gallus domesticus*)	4	U	GV	5	d	27	w	LB	F	REP	PROG	WO	16.7	34.0	89
195	Jackson and Stevenson, 1981	2159	Chicken (*Gallus domesticus*)	6	U	FD	336	d	26	w	LB	F	REP	EGPN	WO	17.0	25.5	86
196	Stevenson et al, 1983	6170	Chicken (*Gallus domesticus*)	4	U	FD	5	d	27	w	LB	F	REP	PROG	WO	18.0	28.0	86
197	Jackson and Stevenson, 1981	2158	Chicken (*Gallus domesticus*)	6	U	FD	280	d	18	w	LB	F	EGG	EGWT	EG	19.4	29.0	86
198	Jackson and Stevenson, 1981	2159	Chicken (*Gallus domesticus*)	6	U	FD	336	d	26	w	LB	F	REP	EGPN	WO	20.5	30.7	86
200	Griminger 1977	2112	Chicken (*Gallus domesticus*)	5	U	FD	2	w	7	mo	LB	F	EGG	ESTH	EG	22.4	44.8	85
201	Pearce et al 1983	2294	Chicken (*Gallus domesticus*)	5	U	FD	12	d	26	w	LB	F	REP	EGPN	WO	22.5	45.0	85
202	Jackson, et. al., 1979	2160	Chicken (*Gallus domesticus*)	5	U	FD	232	d	17	w	LB	F	REP	EGPN	WO	23.2	29.9	86
204	Stevenson and Jackson 1980	2292	Chicken (*Gallus domesticus*)	5	U	FD	6	d	24	w	LB	F	REP	EGPN	WO	27.2	54.4	85
205	Chiou et al 1997	2050	Chicken (*Gallus domesticus*)	5	M	FD	4	w	28	w	LB	F	REP	EGPN	WO	27.5	40.6	91
206	Jackson, 1977	2157	Chicken (*Gallus domesticus*)	6	U	FD	35	d	NR	NR	LB	F	REP	PROG	WO	29.1	47.5	86
208	Chiou et al, 1998	2049	Chicken (*Gallus domesticus*)	4	U	FD	4	w	38	w	LB	F	REP	EGPN	WO	33.4	40.1	86
210	Jackson and Stevenson, 1981	2159	Chicken (*Gallus domesticus*)	6	U	FD	336	d	26	w	LB	F	REP	ORWT	OV	40.0	50.0	86
212	Shivanandappa et al., 1983	3727	Chicken (*Gallus domesticus*)	6	U	OR	3	w	25	w	JV	M	REP	SPCV	TE	239	318	87
Growth (G)																		
217	Kashani et al., 1986	2171	Turkey (*Melagris gallopavo*)	4	U	FD	8	w	1	d	JV	M	GRO	BDWT	WO	2.34	4.68	83
222	McGhee et al, 1965	14453	Chicken (*Gallus domesticus*)	6	U	FD	4	w	NR	NR	JV	NR	GRO	BDWT	WO	3.83	7.67	83
234	Ekperigin and Vorha, 1981	6474	Chicken (*Gallus domesticus*)	4	U	FD	7	d	6	d	JV	NR	GRO	BDWT	WO	8.59	42.9	80
235	Ekperigin and Vorha, 1981	6474	Chicken (*Gallus domesticus*)	3	U	FD	7	d	7	d	JV	NR	GRO	BDWT	WO	8.59	42.9	80
236	Gill et al, 1995	2107	Chicken (*Gallus domesticus*)	4	U	FD	3	w	4	w	JV	M	GRO	BDWT	WO	9.52	19.0	84
238	Foster, 1999	18769	Duck (*Anas platyrhynchos*)	5	M	DR	14	d	4	d	JV	NR	GRO	BDWT	WO	10.2	51.6	82
242	Nam et al 1984	2226	Chicken (*Gallus domesticus*)	3	U	FD	4	w	3	d	JV	NR	GRO	BDWT	WO	12.2	24.3	83
244	Chiou et al., 1999	2048	Chicken (*Gallus domesticus*)	4	U	FD	3	w	3	w	JV	NR	GRO	BDWT	WO	13.3	26.6	84
248	Poupoulis and Jensen 1976	2250	Chicken (*Gallus domesticus*)	3	U	FD	4	w	1	d	JV	NR	GRO	BDWT	WO	14.3	28.7	82
249	Poupoulis and Jensen 1976	2250	Chicken (*Gallus domesticus*)	5	U	FD	4	w	1	d	JV	NR	GRO	BDWT	WO	14.3	28.7	82
250	Poupoulis and Jensen 1976	2250	Chicken (*Gallus domesticus*)	3	U	FD	4	w	1	d	JV	NR	GRO	BDWT	WO	14.3	28.7	82
251	Poupoulis and Jensen 1976	2250	Chicken (*Gallus domesticus*)	5	U	FD	4	w	1	d	JV	NR	GRO	BDWT	WO	14.3	28.7	82
252	Poupoulis and Jensen 1976	2250	Chicken (*Gallus domesticus*)	3	U	FD	4	w	1	d	JV	NR	GRO	BDWT	WO	14.3	28.7	82
256	Funk and Baker 1991	2099	Chicken (*Gallus domesticus*)	3	U	FD	14	d	8	d	JV	M	GRO	BDWT	WO	15.7	25.8	84
257	Miles et al 1998	2221	Chicken (*Gallus domesticus*)	4	U	FD	42	d	1	d	JV	B	GRO	BDWT	WO	16.5	24.7	84
258	Stevenson and Jackson 1980	2292	Chicken (*Gallus domesticus*)	5	U	FD	6	d	24	w	SM	F	GRO	BDWT	WO	16.7	33.4	83
259	Miles et al 1998	2221	Chicken (*Gallus domesticus*)	4	U	FD	42	d	1	d	JV	B	GRO	BDWT	WO	17.2	25.8	84
261	Smith 1969	2284	Chicken (*Gallus domesticus*)	4	U	FD	25	d	1	d	JV	M	GRO	BDWT	WO	17.8	31.1	83
262	Wang et al 1987	2319	Chicken (*Gallus domesticus*)	4	U	FD	3	w	1	d	JV	M	GRO	BDWT	WO	17.8	35.5	82
263	Stevenson et al, 1983	6170	Chicken (*Gallus domesticus*)	4	U	FD	5	d	27	w	SM	F	GRO	BDWT	WO	18.0	28.0	80
268	Jensen and Maurice 1979	2166	Chicken (*Gallus domesticus*)	4	U	FD	4	w	1	d	JV	NR	GRO	BDWT	WO	18.5	37.1	83
270	Funk and Baker 1991	2099	Chicken (*Gallus domesticus*)	5	U	FD	14	d	8	d	JV	M	GRO	BDWT	WO	19.6	30.5	84
272	Jackson and Stevenson, 1981	2159	Chicken (*Gallus domesticus*)	6	U	FD	336	d	26	w	SM	F	GRO	BDWT	WO	20.5	30.7	84
274	Robbins and Baker 1980	2267	Chicken (*Gallus domesticus*)	3	U	FD	14	d	8	d	JV	NR	GRO	BDWT	WO	21.3	42.7	83
275	Ekperigin and Vorha, 1981	6474	Chicken (*Gallus domesticus*)	5	U	FD	7	d	9	d	JV	NR	GRO	BDWT	WO	21.5	42.9	82
279	Miles et al 1998	2221	Chicken (*Gallus domesticus*)	4	M	FD	21	d	1	d	JV	B	GRO	BDWT	WO	21.9	34.0	89
280	Griminger 1977	2112	Chicken (*Gallus domesticus*)	5	U	FD	2	w	7	mo	SM	F	GRO	BDWT	WO	22.4	44.8	83
281	Kassim and Suwanpradit, 1996	2172	Chicken (*Gallus domesticus*)	4	U	FD	3	w	1	d	JV	M	GRO	BDWT	WO	22.7	34.1	83
282	Jackson and Stevenson, 1981	2158	Chicken (*Gallus domesticus*)	6	U	FD	280	d	18	w	SM	F	GRO	BDWT	WO	23.0	30.7	84
283	Jackson, et. al., 1979	2160	Chicken (*Gallus domesticus*)	5	U	FD	232	d	17	w	SM	F	GRO	BDWT	WO	23.2	29.9	84
284	Jackson and Stevenson, 1981	2159	Chicken (*Gallus domesticus*)	6	U	FD	336	d	26	w	SM	F	GRO	BDWT	WO	23.3	31.0	84
287	Jackson and Stevenson, 1981	2158	Chicken (*Gallus domesticus*)	6	U	FD	280	d	18	w	SM	F	GRO	BDWT	WO	26.4	35.2	84
289	Ledoux et al, 1989	5812	Chicken (*Gallus domesticus*)	4	U	FD	3	w	1	d	JV	M	GRO	BDWT	WO	26.9	40.4	78
290	Chiou et al 1997	2050	Chicken (*Gallus domesticus*)	5	M	FD	28	d	28	w	SM	F	GRO	BDWT	WO	27.9	35.3	89
292	Poupoulis and Jensen 1976	2250	Chicken (*Gallus domesticus*)	4	U	FD	4	w	1	d	JV	NR	GRO	BDWT	WO	28.7	57.4	82
295	Vohra and Kratzer, 1968	14404	Turkey (*Melagris gallopavo*)	3	U	FD	21	d	NR	NR	JV	B	GRO	BDWT	WO	29.7	59.3	82
298	Mehring and Brumbaugh, 1960	22	Chicken (*Gallus domesticus*)	5	M	FD	10	w	1	d	JV	B	GRO	BDWT	WO	33.0	43.3	88
300	Harms and Buresh 1986	2118	Turkey (*Melagris gallopavo*)	3	U	FD	21	d	1	d	JV	B	GRO	BDWT	WO	34.6	51.9	84
301	Funk and Baker 1991	2099	Chicken (*Gallus domesticus*)	5	U	FD	14	d	8	d	JV	M	GRO	BDWT	WO	35.2	63.9	83
310	Kassim and Suwanpradit, 1996	2172	Chicken (*Gallus domesticus*)	4	U	FD	3	w	3	w	JV	M	GRO	BDWT	WO	49.5	74.2	83
313	Jackson, 1977	2157	Chicken (*Gallus domesticus*)	6	U	FD	35	d	1	yr	SM	F	GRO	BDWT	WO	50.9	55.9	84
314	Foster, 1999	18769	Duck (*Anas platyrhynchos*)	4	M	FD	35	d	3	d	JV	NR	GRO	BDWT	WO	56.8	109	89
315	Vohra and Kratzer, 1968	14404	Turkey (*Melagris gallopavo*)	5	U	FD	21	d	NR	NR	JV	B	GRO	BDWT	WO	60.0	120	82
Survival (S)																		

Table H-8. Copper - Birds
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053

Result #	Reference	Ref No.	Test Organism	# of Conc/ Doses	Method of Analyses	Route of Exposure	Exposure Duration	Duration Units	Age	Age Units	Lifestage	Sex	Effect Type	Effect Measure	Response Site	NOAEL Dose (mg/kg bw/day)	LOAEL Dose (mg/kg bw/day)	Total
351	McGhee et al, 1965	14453	Chicken (*Gallus domesticus*)	6	U	FD	4	w	NR	NR	JV	NR	MOR	MORT	WO	8.14	16.3	84
357	Poupoulis and Jensen 1976	2250	Chicken (*Gallus domesticus*)	5	U	FD	4	w	1	d	JV	NR	MOR	MORT	WO	14.3	28.7	83
358	Poupoulis and Jensen 1976	2250	Chicken (*Gallus domesticus*)	3	U	FD	4	w	1	d	JV	NR	MOR	MORT	WO	14.3	28.7	83
367	Poupoulis and Jensen 1976	2250	Chicken (*Gallus domesticus*)	4	U	FD	4	w	1	d	JV	NR	MOR	MORT	WO	28.7	57.4	83
368	Poupoulis and Jensen 1976	2250	Chicken (*Gallus domesticus*)	5	U	FD	4	w	1	d	JV	NR	MOR	MORT	WO	28.7	57.4	83
378	Mehring and Brumbaugh, 1960	22	Chicken (*Gallus domesticus*)	5	M	FD	10	w	1	d	JV	B	MOR	MORT	WO	33.0	43.3	89
385	Vohra and Kratzer, 1968	14404	Turkey (*Melagris gallopavo*)	5	U	FD	21	d	NR	NR	JV	B	MOR	MORT	WO	60.0	120	83
387	Hill, 1974	92	Chicken (*Gallus domesticus*)	6	U	FD	5	w	1	d	JV	F	MOR	MORT	WO	81.6	122	83

AATT = alanine aminotransferase; AD = adipose tissue; ASAT = aspartate aminotransferase; AT = alimentary tract; B = both; BDWT = body weight changes; BEH = behavior; BIO = biochemical; BL = blood; BT = breast; bw = body weight; CHM = chemical changes; CHOL = cholesterol; CRKI = creatine kinase; d = day; DR = drinking water; DT = digestive tract; EG = egg; EGG = egg; EGPN = eggs per nest; EGWT = egg weight; ENZ = enyzme level changes; ESTH = eggshell thickness; F = female; FCNS = food consumption; FD = food; FDB = feeding behavior; FDCV = food conversion efficiency; FE = feathers; FEFF = feeding efficiency; FFTA = free fatty acids; GBCM = general biochemical changes; GGRO = general growth; GHIS = general histology; GITX = general intoxication; GLCN = glycine; GLPX = glutathione peroxidase; GLSN = gross lesions; GLUC = glucose; GOTR = glutamic-oxaloacetic transaminase; GPHY = general pysiology changes; GRO = growth; GV = gavage; GZ = gizzard; HE = heart; HEMT = general hematology; HIS = histological changes; HMGL = hemoglobin; IN = intestinal tract; IRRI = skin irritation; ITX = intoxication; JV = juvenile; kg = kilograms; KI = kidney; LADH
= lactate dehydrogenase; LB = egg-laying bird; LD = lipid; LI = liver; LIPD = lipid; LOAEL = lowest observed adverse effect level; mg = milligrams; mo = months; M = male; M = measured; MOR = effects on mortality and survival; MORT = mortality; NCRO = necrosis; NOAEL = No Observed Advese Effect Level; NR = Not reported; OR = other oral; ORW = organ weight changes; ORWT = organ weight changes; OV = ovaries; PHPH = pH; PHY = physiology; PL = plasma; PR = proventriculus; PROG = progeny
counts/numbers; PROT = prothrombin time; PTH = pathology; REP = reproduction; SGOT = serum glutamate oxalo aetate transaminase; SK = skin; SM = sexually mature; SMIX
= weight relative to body weight; SP = spleen; SPCV = sperm cell viability; SR = serum; TE = testes; U = unmeasured; URIC = uric acid; USTR = ultrastructural changes; UX = measured but values not reported; XX = temporary code, requires validation; w = weeks; WCON = water consumption; WI = wings; WO = whole organism; yr = year.

Only bounded LOAELs for S,G, & R are shown.

Geomean of Bounded G,R LOAELs: 35.4

Table H-9. Copper - Mammals
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053

Result #	Reference	Ref No.	Test Organism	# of Conc/ Doses	Method of Analyses	Route of Exposure	Exposure Duration	Duration Units	Age	Age Units	Lifestage	Sex	Effect Type	Effect Measure	Response Site	NOAEL Dose (mg/kg bw/day)	LOAEL Dose (mg/kg bw/day)	Total
Reproduction (R)																		
158	Aulerich et al 1982	2013	Mink (*Mustela vision*)	5	U	FD	357	d	NR	mo	JV	F	REP	PROG	WO	3.40	6.79	85
161	Lecyk, 1980	2193	Mouse (*Mus musculus*)	7	U	FD	49	d	NR	NR	GE	B	REP	PROG	WO	90.9	136	84
162	Lecyk, 1980	2193	Mouse (*Mus musculus*)	7	U	FD	49	d	NR	NR	GE	B	REP	PROG	WO	90.9	136	84
Growth (G)																		
180	Allcroft et al, 1961	14387	Pig (*Sus scrofa*)	4	M	FD	4	w	8-10	w	JV	B	GRO	BDWT	WO	5.60	9.34	88
181	Waibel et al, 1964	14405	Turkey (*Melagris gallopavo*)	3	U	FD	3	w	7	d	JV	NR	GRO	BDWT	WO	5.82	46.6	75
203	Brandt, 1983	2033	Mink (*Mustela vision*)	3	M	FD	4	mo	90	d	JV	M	GRO	BDWT	WO	10.2	19.6	88
204	Edmonds and Baker 1986	2075	Pig (*Sus scrofa*)	3	U	FD	28	d	4	w	JV	NR	GRO	BDWT	WO	10.3	26.9	84
209	Suttle and Mills, 1966	3757	Pig (*Sus scrofa*)	3	U	FD	14	d	NR	NR	JV	F	GRO	BDWT	WO	16.2	27.6	84
213	Hebert 1993	2126	Rat (*Rattus norvegicus*)	6	U	DR	15	d	6	w	JV	B	GRO	BDWT	WO	17.2	51.6	79
217	Grobner et al	2113	Rabbit (*Oryctolagus cuniculus*)	6	M	FD	28	d	28	d	JV	NR	GRO	BDWT	WO	27.7	45.7	89
224	Hebert 1993	2126	Rat (*Rattus norvegicus*)	6	U	FD	13	w	6	w	JV	B	GRO	BDWT	WO	49.8	99.6	84
225	Komulainen, 1983	12079	Rat (*Rattus norvegicus*)	4	U	DR	1	w	4	w	JV	M	GRO	BDWT	WO	50.0	64.0	82
229	Hebert 1993	2126	Rat (*Rattus norvegicus*)	6	U	FD	15	d	6	w	JV	B	GRO	BDWT	WO	82.5	165	84
230	Keen et al, 1982	11928	Rat (*Rattus norvegicus*)	4	U	FD	7	w	NR	NR	JV	F	GRO	BDWT	WO	91.7	183	83
231	Hebert et al 1993	2127	Rat (*Rattus norvegicus*)	6	U	FD	92	d	6	w	JV	M	GRO	BDWT	WO	146	293	83
232	Hebert 1993	2126	Mouse (*Mus musculus*)	6	U	FD	13	w	6	w	JV	B	GRO	BDWT	WO	179	358	84
234	Hebert et al 1993	2127	Rat (*Rattus norvegicus*)	5	U	DR	2	w	6	w	JV	M	GRO	BDWT	WO	259	400	78
235	Pettersen, et al, 2002	36374	Mouse (*Mus musculus*)	3	U	FD	3	w	4	w	JV	B	GRO	BDWT	WO	494	988	83
237	Hebert et al 1993	2127	Rat (*Rattus norvegicus*)	6	U	FD	15	d	6	w	JV	M	GRO	BDWT	WO	812	1738	83
238	Hebert et al 1993	2127	Mouse (*Mus musculus*)	5	U	DR	2	w	6	w	JV	M	GRO	BDWT	WO	1427	3395	78
239	Hebert et al 1993	2127	Mouse (*Mus musculus*)	6	U	FD	92	d	6	w	JV	M	GRO	BDWT	WO	2113	4665	83
240	Hebert et al 1993	2127	Mouse (*Mus musculus*)	6	U	FD	15	d	6	w	JV	F	GRO	BDWT	WO	19466	47519	83
Survival (S)																		
255	Allcroft et al, 1961	14387	Pig (*Sus scrofa*)	4	M	FD	4	w	8-10	w	JV	B	MOR	MORT	WO	2.49	4.15	89
258	Brandt, 1983	2033	Mink (*Mustela vision*)	3	M	FD	4	mo	90	d	JV	M	MOR	MORT	WO	10.2	19.6	89
259	Jenkins, 1989	48117	Cattle (*Bos taurus*)	5	U	FD	6	w	3	d	JV	M	MOR	MORT	WO	16.3	32.5	77
260	Boyden, 1938	14653	Rat (*Rattus norvegicus*)	5	U	FD	1	w	28	d	JV	B	MOR	MORT	WO	23.3	35.0	84
262	Hebert 1993	2126	Rat (*Rattus norvegicus*)	6	U	DR	15	d	6	w	JV	B	MOR	MORT	WO	33.3	111	78
264	Hebert 1993	2126	Mouse (*Mus musculus*)	6	U	DR	15	d	6	w	JV	F	MOR	MORT	WO	33.8	101	80
268	Keen et al, 1982	11928	Rat (*Rattus norvegicus*)	4	U	FD	7	w	NR	NR	JV	F	MOR	MORT	WO	91.7	183	84
271	Hebert et al 1993	2127	Rat (*Rattus norvegicus*)	5	U	DR	2	w	6	w	JV	M	MOR	MORT	WO	259	400	79
273	Haywood 1985	2121	Rat (*Rattus norvegicus*)	5	U	FD	2	w	NR	NR	JV	M	MOR	MORT	WO	457	548	78
277	Hebert et al 1993	2127	Mouse (*Mus musculus*)	5	U	DR	2	w	6	w	JV	B	MOR	MORT	WO	1427	3395	79

AATT = alanine aminotransferase; AD = adult; AHDX = aniline hydroxylase; ASAT = aspartate aminotransferase; B = both; BDWT = body weight changes; BEH = behavior; BIO = biochemical; BL = blood; BLPR = blood pressure; BR = brain; bw = body weight; CALC = calcium; CHM = chemical changes; CTYP = percent cell type; d = day; DIFD = digestibility of food; FDCV = food conversion efficiency; DR = Drinking water; ENZ = enyzme level changes; F = female; FCNS = food consumption; FD = food; FDB = feeding behavior; FDNG = feeding behavior; FFTA = fatty acids, free; FO = foot; G6PD = glucose-6-phosphate dehydrogenase; GBCM = general biochemical changes; GE = gestation; GENZ = general enzyme changes; GGTR = (gamma) Y-glutamyltransferase; GHIS = general histology; GHRM = general hormone; GITX = general intoxication; GLPX = glutathione peroxidase; GLTH = glutathione; GLUC = glucose; GLYC = glycogen; GPHY = general pysiology changes; GRO = growth; GRS = gross body weight changes; GT = gastrointestinal tract; GV = gavage; HA = hair; HE = heart; HIS = histological changes;HMGL = hemoglobin; HRM = hormone changes; HYPL = hyperplasia; IRRI = skin irritation; ITX = intoxication; JV = juvenile; kg = kilograms; KI = kidney; LC = lactation; LD = lipid; LI = liver; LOAEL = lowest observed adverse effect level;

mg = milligrams; mo = months; M = male; M = measured; MK = milk, lactating females; MOR = effects on mortality and survival; MORT = mortality; MPH = morphology; MU = muscle; MUSC = muscle changes; NACO = sodium; NOAEL = No Observed Advese Effect Level; NCRO = necrosis; NR = Not reported; NMVM = number of movements; OR = other oral; ORW = organ weight changes; ORWT = organ weight changes; PCLV = packed cell volume; PHY = physiology; PL = plasma; PROG = progeny numbers/counts; PRTL = protein, total; PRWT = progeny weight; PTH = pathology; RBCE = red blood cell count; REP = reproduction; RSUC = sperm cell counts; SK = skin; SM = sexually mature; SMIX = weight relative to body weight; SP = spleen; SPCL = sperm cell counts; SR = serum; SURV = survival; TE = testes; TEWT = testes weight; TWBC = white blood cell count, total; U = unmeasured; UR = urine; USTR = ultrastructural changes; VTMA = vitamin A; w = weeks; WCON = water consumption; WO = whole organism; yr = year.

Only bounded LOAELs for S,G, & R are shown.

Result #240 (LOAEL = 47,510 mg/kg bw/d) has been excluded from the geomean calculation.

Geomean of Bounded G,R LOAELs: 133

Table H-10. Lead - Birds
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053

Result #	Reference	Ref No.	Test Organism	# of Conc/ Doses	Method of Analyses	Route of Exposure	Exposure Duration	Duration Units	Age	Age Units	Lifestage	Sex	General Effect Group	Effect Measure	Response Site	NOAEL Dose (mg/kg/day)	LOAEL Dose (mg/kg/day)	Data Evaluation Score
Reproduction (R)																		
50	Edens and Garlich, 1983	2608	Japanese quail (Coturnix japonica)	4	U	FD	5	w	6	w	LB	F	REP	PROG	W	0.194	1.94	77
51	Edens and Garlich, 1983	2608	Chicken (Gallus domesticus)	3	U	FD	4	w	N	N	LB	F	REP	PROG	W	1.63	3.26	79
52	Meluzzi et al., 1996	2771	Chicken (Gallus domesticus)	4	U	FD	30	d	22	w	LB	F	EGG	ALW	EG	2.69	4.04	81
55	Morgan et al., 1975	2779	Japanese quail (Coturnix japonica)	5	U	FD	5	w	6	d	JV	M	REP	TEWT	TE	12.6	126	78
56	Morgan et al., 1975	2779	Japanese quail (Coturnix japonica)	5	U	FD	5	w	1	d	JV	M	REP	TEWT	TE	67.4	135	80
Growth (G)																		
64	Edens and Garlich, 1983	2608	Japanese quail (Coturnix japonica)	3	U	FD	5	w	1	d	JV	F	GRO	BDW	W	1.56	15.6	77
67	Edens and Melvin, 1989	2609	Japanese quail (Coturnix japonica)	3	U	FD	4	w	0	d	JV	F	GRO	BDW	W	5.93	59.3	76
68	Damron et al, 1969	14768	Chicken (Gallus domesticus)	4	U	FD	4	w	4	w	JV	N	GRO	BDW	W	6.14	61.4	76
69	Damron et al, 1969	14768	Chicken (Gallus domesticus)	4	U	FD	4	w	4	w	JV	N	GRO	BDW	W	7.10	71.0	76
70	Edens et al., 1976	2606	Japanese quail (Coturnix japonica)	5	U	FD	12	w	0	d	JV	F	GRO	BDW	W	11.1	111	79
71	Edens, 1985	2605	Japanese quail (Coturnix japonica)	5	U	FD	12	w	1	w	JV	F	GRO	BDW	W	11.2	112	76
72	Morgan et al., 1975	2779	Japanese quail (Coturnix japonica)	5	U	FD	2	w	6	d	JV	N	GRO	BDW	W	12.6	126	76
73	Morgan et al., 1975	2779	Japanese quail (Coturnix japonica)	5	U	FD	1	w	1	d	JV	N	GRO	BDW	W	13.5	67.4	76
76	Hoffman et al., 1985	2696	American kestrel (Falco sparverius)	4	U	G	10	d	1	d	JV	N	GRO	BDW	W	25.0	125	88
80	Berg et al., 1980	2534	Chicken (Gallus domesticus)	5	U	FD	2	w	1	d	JV	M	GRO	BDW	W	61.3	123	83
Survival (S)																		
95	Barthalmus et al., 1977	2526	Pigeon (Columba livia)	4	U	G	40	d	N	N	AD	M	MO	MOR	W	12.5	25.0	82
100	Hoffman et al., 1985	2696	American kestrel (Falco sparverius)	4	U	G	10	d	1	d	JV	N	MO	SURV	W	125	625	89
101	Vengris and Mare, 1974	14384	Chicken (Gallus domesticus)	7	U	G	35	d	6	w	JV	B	MO	MOR	W	160	320	86

AD = adult; ALAD = (delta) -aminolevulinic acid dehydrogenase; ALWT = albumin weight; ANR = anorexia; AR = adrenal; B = both; BEH = behavior; BDWT = body weight changes; BEH = behavior; BL = blood; BR = brain; CALC = calcium; CHM = chemical changes; d = days; DR = Drinking water; EG = egg; EGG = effects on eggs; EGPN = egg production; ENZ = enzyme changes; ESTH = eggshell thinning; F = female; FCNS = food consumption; FD = food; FDB = feeding behavior; FE = feathers; FEFF = feed efficiency; FM = femur; GE = gestation; GHIS = general histology; GITX = general intoxication; GLBM = glomerular basement membrane; GRO = growth; GRS = gross body weight changes (not growth); GV = gavage; HIS = histology; HMCT = hematocrit; HMGL = hemoglobin; IM = immature; INTX =

Only bounded LOAELs for S,G, & R are shown.

Geomean of Bounded G,R LOAELs: 42.7

Table H-11. Lead - Mammals
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053

Result #	Reference	Ref No.	Test Organism	# of Conc/ Doses	Method of Analyses	Route of Exposure	Exposure Duration	Duration Units	Age	Age Units	Lifestage	Sex	Effect Type	Effect Measure	Response Site	NOAEL Dose (mg/kg bw/day)	LOAEL Dose (mg/kg bw/day)	Data Evaluation Score
Reproduction																		
121	Grant et al., 1980	2658	Rat (*Rattus norvegicus*)	5	U	DR	62	d	21	d	GE	F	REP	PRWT	WO	0.710	7.00	77
122	Dilts and Ahokas, 1979	2593	Rat (*Rattus norvegicus*)	6	U	DR	21	d	NR	NR	GE	F	REP	PRWT	WO	1.00	5.00	74
123	Gandley et al., 1999	2642	Rat (*Rattus norvegicus*)	3	U	DR	35	d	NR	NR	AD	M	REP	RSUC	WO	2.60	26.0	72
124	Grant et al., 1980	2658	Rat (*Rattus norvegicus*)	4	U	DR	62	d	21	d	GE	B	REP	PRWT	WO	3.00	6.0	79
126	Dilts and Ahokas, 1980	2592	Rat (*Rattus norvegicus*)	6	U	DR	21	d	NR	NR	GE	F	REP	PRWT	WO	5.00	10.0	76
128	Jessup and Shott, 1969	11831	Rat (*Rattus norvegicus*)	5	U	FD	92	w	21	d	JV	M	REP	TEWT	TE	7.50	74.9	78
130	Kimmel et al., 1980	2737	Rat (*Rattus norvegicus*)	5	U	DR	23.8	d	21	d	GE	F	REP	Other	WO	9.10	45.0	73
131	McMurry et al., 1995	2770	Cotton rat (*Sigmodon hispidus*)	3	U	DR	7	w	NR	NR	AD	M	REP	RHIS	RT	12.4	170	67
132	Barratt et al., 1989	2524	Rat (*Rattus norvegicus*)	4	U	GV	9	w	10	w	JV	M	REP	SPCV	TE	18.0	180	85
135	Chowdhury et al., 1984	3721	Rat (*Rattus norvegicus*)	4	U	DR	60	d	NR	NR	SM	M	REP	TEWT	TE	31.6	63.2	71
137	Winder et al., 1984	2934	Rat (*Rattus norvegicus*)	3	U	DR	31	d	NR	d	LC	F	REP	PRWT	WO	33.3	111	72
138	Miller et al., 1982	2775	Rat (*Rattus norvegicus*)	4	U	GV	41	d	NR	NR	GE	F	REP	PRWT	WO	41.0	54.6	87
139	Wolfe et al, 1996	2502	Rat (*Rattus norvegicus*)	5	U	DR	1	w	94	d	JV	M	REP	SPCL	SM	47.3	82.0	84
140	Sourgens et al., 1987	2889	Rat (*Rattus norvegicus*)	4	U	DR	30	d	NR	NR	SM	M	REP	Other	SV	56.0	285	73
143	Ronis et al., 1998	2847	Rat (*Rattus norvegicus*)	4	U	DR	37	d	NR	NR	GE	F	REP	PRWT	WO	90.1	270	74
144	Wardell et al., 1982	748	Rat (*Rattus norvegicus*)	5	U	GV	12	d	NR	NR	GE	F	REP	RSEM	EM	100	150	87
148	Eyden et al, 1978	2618	Mouse (*Mus musculus*)	3	U	FD	8	w	2	mo	GE	M	REP	SPCV	TE	144	1440	78
149	Maker et al., 1973	2758	Mouse (*Mus musculus*)	7	U	FD	30	d	NR	NR	LC	F	REP	PRWT	WO	202	506	79
150	Maker et al., 1973	2758	Mouse (*Mus musculus*)	7	U	FD	30	d	NR	NR	LC	F	REP	PRWT	WO	202	506	79
151	Cramer et al, 1980	14816	Rat (*Rattus norvegicus*)	4	U	DR	21	d	NR	NR	GE	F	REP	DEYO	WO	276	552	74
152	Nathan et al., 1992	2785	Rat (*Rattus norvegicus*)	5	U	DR	10	w	NR	NR	AD	M	REP	TEWT	MT	294	587	71
155	Barrett and Livesey, 1983	10239	Rat (*Rattus norvegicus*)	4	U	FD	4	d	NR	NR	LC	F	REP	PRWT	WO	601	1500	86
Growth																		
217	Dilts and Ahokas, 1979	2593	Rat (*Rattus norvegicus*)	6	U	DR	21	d	NR	NR	GE	F	GRO	BDWT	WO	1.00	5.00	72
218	Kimmel et al., 1980	2737	Rat (*Rattus norvegicus*)	5	U	DR	7	d	50	d	AD	F	GRO	BDWT	WO	1.27	13.0	73
222	Kimmel et al., 1980	2737	Rat (*Rattus norvegicus*)	4	U	DR	7	w	21	d	GE	F	GRO	BDWT	WO	4.70	8.90	80
224	Zheng et al., 1996	2944	Rat (*Rattus norvegicus*)	3	U	DR	30	d	22-24	d	JV	M	GRO	BDWT	WO	5.64	28.2	71
225	Hammond et al., 1989	2675	Rat (*Rattus norvegicus*)	4	U	DR	23	d	22	d	JV	F	GRO	BDWT	WO	5.80	29.0	73
229	Gruber et al., 1997	2660	Rat (*Rattus norvegicus*)	3	U	DR	6	mo	NR	NR	AD	M	GRO	BDWT	WO	10.6	532	69
230	Lorenzo et al., 1978	2751	Rabbit (*Oryctolagus cuniculus*)	3	U	GV	10	d	1	d	JV	F	GRO	BDWT	WO	10.7	50.4	78
236	Gerber et al, 1978	14822	Mouse (*Mus musculus*)	3	U	DR	14	d	0	d	JV	NR	GRO	BDWT	WO	16.3	163	71
237	Barratt et al., 1989	2524	Rat (*Rattus norvegicus*)	4	U	GV	9	w	10	w	JV	M	GRO	BDWT	WO	18.0	180	83
246	Wolfe et al, 1996	2502	Rat (*Rattus norvegicus*)	5	M	DR	4	w	94	d	JV	M	GRO	BDWT	WO	71.5	178	82
247	Gelman and Michaelson, 1979	14821	Rat (*Rattus norvegicus*)	4	U	GV	12	d	2	d	JV	B	GRO	BDWT	WO	75.0	225	85
249	Goyer et al., 1970	14799	Rat (*Rattus norvegicus*)	6	U	DR	10	w	NR	NR	JV	M	GRO	BDWT	WO	120	383	71
250	Eyden et al, 1978	2618	Mouse (*Mus musculus*)	3	U	FD	4	w	3	mo	JV	B	GRO	BDWT	WO	136	1360	76
253	Sokol et al., 1985	2888	Rat (*Rattus norvegicus*)	3	U	DR	30	d	52	d	JV	M	GRO	BDWT	WO	169	508	74
256	Wadi and Ahmad, 1999	2924	Mouse (*Mus musculus*)	3	U	DR	6	w	7	w	SM	M	GRO	BDWT	WO	187	373	69
260	Mykkanen et al., 1980	2783	Rat (*Rattus norvegicus*)	4	U	FD	1	w	NR	NR	LC	F	GRO	BDWT	WO	230	460	77
264	Holtzman et al., 1982	2697	Rat (*Rattus norvegicus*)	4	U	GV	14	d	14	d	JV	NR	GRO	BDWT	WO	400	800	85
265	Holtzman et al., 1982	2697	Rat (*Rattus norvegicus*)	5	U	GV	14	d	20	d	JV	NR	GRO	BDWT	WO	400	800	85
269	Maker et al., 1973	2758	Mouse (*Mus musculus*)	7	U	FD	30	d	NR	NR	LC	F	GRO	BDWT	WO	632	1264	77
272	Maker et al., 1973	2758	Mouse (*Mus musculus*)	7	U	FD	28	d	NR	NR	LC	F	GRO	BDWT	WO	1260	2530	77
Survival																		
306	Junaid et al., 1997	2725	Mouse (*Mus musculus*)	4	U	GV	60	d	NR	NR	AD	F	MOR	MORT	WO	4.00	8.00	82
308	Lorenzo et al., 1978	2751	Rabbit (*Oryctolagus cuniculus*)	5	U	GV	30	d	1	d	JV	F	MOR	MORT	WO	10.7	50.4	84
309	Azar et al., 1973	3747	Rat (*Rattus norvegicus*)	5	M	FD	2	yr	NR	NR	NR	M	MOR	MORT	WO	10.9	42.4	81
310	Logner et al., 1984	3889	Cattle (*Bos taurus*)	4	U	FD	10	d	74	d	JV	M	MOR	MORT	WO	16.0	43.0	88
320	Azar et al., 1973	3747	Rat (*Rattus norvegicus*)	3	M	FD	2	yr	NR	NR	NR	M	MOR	MORT	WO	87.5	163	83
326	Holtzman et al., 1982	2697	Rat (*Rattus norvegicus*)	5	U	GV	14	d	20	d	JV	NR	MOR	MORT	WO	400	800	86
327	Holtzman et al., 1982	2697	Rat (*Rattus norvegicus*)	4	U	GV	14	d	24	d	JV	NR	MOR	MORT	WO	400	800	86
330	Holtzman et al., 1982	2697	Rat (*Rattus norvegicus*)	4	U	GV	14	d	24	d	JV	NR	MOR	MORT	WO	2000	2400	86

ACTP = accuracy of learned behavior; ACTV = activity level; AD = adult; ALAD =(delta) -aminolevulinic acid dehydrogenase; AVO = avoidance; B = both; B2MG = beta2-microglobulin; BL = blood; BLPR = blood pressure; BDWT = body weight changes; BEH = behavior; BR = brain; BTMP = body temperature; BUNT = blood urea nitrogen; CALC = calcium; CHM = chemical changes;d = days; DEYO = death of young; DHYD = dehdyration; DOPA = dopamine; DR = Drinking water; EDMA = edema; EM = embryo; ENCP = encephalopathy; ENZ = enyzme level changes; EXCR = excretion; EY = eye; F = female; FCNS = food consumption; FD = food; FDB = feeding behavior; FERT = fertility; FOOD = food avoidance; G6PD = glucose-6-phosphate dehydrogenase; GBCM = general biochemical; GE = gestation; GHIS = general histology; GLSN = gross lesions; GMPH = general morphology; GPHY = general physiology; GREP = general reproductive effect; GRO = growth; GRS = gross body weight changes; GV = gavage; HE = heart; HIS = histological changes; HMCT = hematocrit; HMGL = hemoglobin;

HRM = hormone changes; IIBD = intranuclear inclusion bodies; ITX = intoxication; JV = juvenile; kg = kilograms; KI = kidney; L = liter; LC = lactation; LFSP = lifespan; LI = liver; LOAEL lowest observed adverse effect level; mo = months; M = male; M = measured; MA = mature; MOR = effects on mortality and survival; MORT = mortality; MT = multiple tissues/organs; NCRO = necrosis; NE = nervous tissue; NOAEL = No Observed Advese Effect Level; NORE = norephinephrine; NR = Not reported; ODVP = offspring development; OR = other oral; ORW = organ weight changes; ORWT = organ weight changes; OV = ovaries; PARL = paralysis; PCLV = packed cell volume; PG = prostate gland; PHY = physiology; PI = pituitary gland; POTA = potassium; PRFM = sexual performance; PROG = progeny numbers/counts; PRTL = total protein; PRWT = progeny weight; PTH = pathology; RBCE = red blood cell count;

RBEH = reproductive behavior; REP = reproduction; RHIS = reproductive organ histology; RPRD = reproductive capacity; RRSP = righting response; RSEM = resorbed embryos; RSUC = reproductive success (general); RT = reproductive tissue; SCDH = succinate dehydrogenase; SM = sperm; SM = sexually mature; SMIX = weight relative to body weight; SOMC = somatomedin C; SPCL = sperm cell counts; SPCV = sperm cell viability; SR = serum; SURV = survival; SV = seminal vesicle; TA = tail; TB = tibia;TE = testes; TEDG = testes degeneration; TEWT = testes weight; U = unmeasured; UR = urine; USTR = ultrastructural changes; UX = measured but values not reported; w = weeks; WCON = water consumption; WO = whole organism; YO = young; y

Only bounded LOAELs for S,G, & R are shown.

Geomean of Bounded G,R LOAELs: 136.7

Table H-12. Vanadium - Birds
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053

Result #	Reference	Ref No.	Test Organism	# of Conc/ Doses	Method of Analyses	Route of Exposure	Exposure Duration	Duration Units	Age	Age Units	Lifestage	Sex	General Effect Group	Effect Measure	Response Site	NOAEL Dose (mg/kg/day)	LOAEL Dose (mg/kg/day)	Data Evaluation Score
Reproduction (R)																		
37	Sell et al, 1982	8577	Chicken (Gallus domesticus)	4	U	FD	7	d	41	w	LB	F	EGG	EQUA	EG	0.275	0.413	85
38	Sell et al, 1986	6469	Chicken (Gallus domesticus)	3	M	FD	4	w	25	w	LB	F	EGG	EQUA	EG	0.325	0.524	90
40	Ousterhout and Berg,	6508	Chicken (Gallus domesticus)	3	U	FD	4	w	40	w	LB	F	EGG	EQUA	EG	0.988	1.98	80
41	Ousterhout and Berg,	6508	Chicken (Gallus domesticus)	3	U	FD	4	w	35-	w	LB	F	EGG	EQUA	EG	0.988	1.98	84
42	Kubena and Phillips	6388	Chicken (Gallus domesticus)	5	UX	FD	84	d	29	w	LB	F	REP	TPRD	W	1.25	2.50	90
44	Hafez and Kratzer 1976	6848	Chicken (Gallus domesticus)	3	U	FD	1	mo	28	w	LB	F	REP	PROG	W	4.94	14.8	84
Growth (G)																		
57	Phillips et al, 1982	6412	Chicken (Gallus domesticus)	4	U	FD	25	w	1	d	JV	F	GRO	BDW	W	0.244	0.489	82
60	Cervantes and Jensen,	6085	Chicken (Gallus domesticus)	4	U	FD	4	w	1	d	JV	M	GRO	BDW	W	0.295	0.589	84
61	Hill 1979	397	Chicken (Gallus domesticus)	4	U	FD	5	w	1	d	JV	F	GRO	BDW	W	0.344	0.688	82
64	Hill, 1990	8125	Chicken (Gallus domesticus)	4	U	FD	19	d	1	d	JV	F	GRO	BDW	W	0.711	1.42	82
65	Hill, 1990	8125	Chicken (Gallus domesticus)	4	U	FD	19	d	1	d	JV	F	GRO	BDW	W	0.711	1.42	82
66	Hathcock et al., 1964	14512	Chicken (Gallus domesticus)	3	U	FD	14	d	1	d	JV	N	GRO	BDW	W	0.904	2.26	82
67	Ousterhout and Berg,	6508	Chicken (Gallus domesticus)	3	U	FD	4	w	35-	w	SM	F	GRO	BDW	W	0.988	1.98	82
68	Romoser,et al, 1961	3740	Chicken (Gallus domesticus)	6	U	FD	21	d	7	d	JV	M	GRO	BDW	W	1.050	1.59	82
69	Qureshi et al, 1999	5079	Chicken (Gallus domesticus)	4	U	FD	14	d	1	d	JV	B	GRO	BDW	W	1.22	3.05	83
70	Kubena and Phillips	6388	Chicken (Gallus domesticus)	5	UX	FD	56	d	29	w	SM	F	GRO	BDW	W	1.26	2.51	88
71	Benabdeljelil and Jensen,	5749	Chicken (Gallus domesticus)	4	U	FD	4	w	43	w	SM	F	GRO	BDW	W	1.84	6.13	81
75	Nelson et al, 1962	14516	Chicken (Gallus domesticus)	5	U	FD	4	w	N	N	JV	M	GRO	BDW	W	2.34	4.08	83
77	Nelson et al, 1962	14516	Chicken (Gallus domesticus)	10	U	FD	4	w	N	N	JV	M	GRO	BDW	W	2.68	3.58	83
78	Hafez and Kratzer 1976	8663	Chicken (Gallus domesticus)	4	U	FD	4	w	1	d	JV	M	GRO	BDW	W	2.87	5.74	82
Survival (S)																		
109	Hathcock et al., 1964	14512	Chicken (Gallus domesticus)	3	U	FD	14	d	1	d	JV	N	MO	MOR	W	0.859	2.15	83
110	Blalock and Hill, 1987	5927	Chicken (Gallus domesticus)	4	U	FD	3	w	1	d	JV	F	MO	MOR	W	0.962	1.92	84
112	Hill, 1974	92	Chicken (Gallus domesticus)	3	U	FD	5	w	1	d	JV	B	MO	MOR	W	2.15	4.294	83
116	Kubena and Phillips	6388	Chicken (Gallus domesticus)	5	UX	FD	84	d	29	w	SM	F	MO	MOR	W	2.50	4.99	89
117	Hafez and Kratzer 1976	8663	Chicken (Gallus domesticus)	3	U	FD	4	w	1	d	JV	M	MO	MOR	W	2.87	5.74	83
118	Hafez and Kratzer 1976	8663	Chicken (Gallus domesticus)	4	U	FD	4	w	1	d	JV	M	MO	MOR	W	2.87	5.74	83
121	Hafez and Kratzer 1976	8663	Chicken (Gallus domesticus)	4	U	FD	4	w	1	d	JV	M	MO	MOR	W	5.74	11.5	83
122	Romoser,et al, 1961	3740	Chicken (Gallus domesticus)	7	U	FD	21	d	11	d	JV	M	MO	MOR	W	6.37	10.6	83

ACHE = acetylcholinesterase; ACTV = general activity levels; AD = adult; ALWT = albumin weight; B = both; BDWT = body weight changes; BEH = behavior; BL = blood; BR = brain; CALC = calcium; CHOL = cholesterol; CHLR = ; d = days; EG = egg; EQUA = egg quality; EGWT = egg weight; ENZ = enzyme changes; ESQU = eggshell quality; EX = excrement; F = female; FCNS = food consumption; FD = food; FDB = feeding behavior; FDCV = food conversion efficiency; FDNG = ; FP = ; GBCM = general biochemical; GGRO = general growth changes; GHIS = general histology; GPHY = general physiology; GRO = growth; GLPX = gluathione peroxidase; GLTH = glutathione; HE = heart; HMCT = hematocrit; HMGL = hemoglobin; JV = juvenile; KI = kidney; LB = laying bird; LI = liver; LIPD = lipid; LOAEL = lowest observed adverse effect level; M = male; M = measured; MOR = mortality, MORT = mortality; NACO = ; NKAT = ; NOAEL = no observed adverse effect level; NR = Not reported; ORW = organ weight changes; ORWT = organ weight; PCON = phosphate concentration; PL = plasma; PROG = progeny counts; REP = reproduction; SM = sexually mature; SMIX = relative to body weight; SR = serum; SURV = survival; TPRD = total production; U = unmeasured; UX = measured but results not reported; w = weeks; WO = whole organism; yr = years

Only bounded LOAELs for S,G, & R are shown.
Geomean of Bounded G,R LOAELs: 1.89

Table H-13. Zinc - Birds
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053

Result #	Reference	Ref No.	Test Organism	# of Conc/ Doses	Method of Analyses	Route of Exposure	Exposure Duration	Duration Units	Age	Age Units	Lifestage	Sex	Effect Type	Effect Measure	Response Site	NOAEL Dose* (mg/kg bw/day)	LOAEL Dose* (mg/kg bw/day)	Total
Reproduction (R)																		
77	Jensen and Maurice, 1980	9749	Chicken (*Gallus domesticus*)	3	U	FD	6	w	NR	NR	LB	F	REP	PROG	WO	24.7	98.8	82
78	Jackson et al, 1986	6133	Chicken (*Gallus domesticus*)	6	U	FD	140	d	40	w	LB	F	REP	PROG	WO	55	105	81
79	Gibson et al, 1986	6048	Chicken (*Gallus domesticus*)	6	U	FD	10	w	30	w	JV	F	REP	PROG	WO	57.3	66.5	81
80	Stevenson et al, 1987	8184	Chicken (*Gallus domesticus*)	9	U	FD	140	d	28	w	JV	F	REP	PROG	WO	63.9	76.7	81
81	Gibson et al, 1986	6048	Chicken (*Gallus domesticus*)	6	U	FD	10	w	30	w	LB	F	REP	PROG	WO	64.1	123	81
82	Stevenson et al, 1987	8184	Chicken (*Gallus domesticus*)	9	U	FD	140	d	28	w	LB	F	REP	PROG	WO	67.8	84.8	81
Growth (G)																		
98	Hamilton et al, 1981	6403	Japanese quail (*Coturnix japonica*)	3	U	FD	14	d	1	d	JV	B	GRO	BDWT	WO	43.3	86.6	83
99	Jackson et al, 1986	6133	Chicken (*Gallus domesticus*)	6	U	FD	140	d	40	w	SM	F	GRO	BDWT	WO	55.0	105	79
101	Berg and Martinson, 1972	93	Chicken (*Gallus domesticus*)	7	U	FD	2	w	1	d	JV	NR	GRO	BDWT	WO	55.3	111	78
103	Sandoval et al, 1998	7245	Chicken (*Gallus domesticus*)	4	U	FD	3	w	1	d	JV	M	GRO	BDWT	WO	70.6	106	84
104	Roberson and Schaible, 1960	14538	Chicken (*Gallus domesticus*)	3	U	FD	4	w	1	d	JV	M	GRO	BDWT	WO	74.3	111	83
105	Roberson and Schaible, 1960	14538	Chicken (*Gallus domesticus*)	3	U	FD	4	w	1	d	JV	M	GRO	BDWT	WO	74.7	112	83
106	Roberson and Schaible, 1960	14538	Chicken (*Gallus domesticus*)	4	U	FD	4	w	1	d	JV	M	GRO	BDWT	WO	75.0	150	79
107	Roberson and Schaible, 1960	14538	Chicken (*Gallus domesticus*)	3	U	FD	4	w	1	d	JV	M	GRO	BDWT	WO	75.7	114	83
108	Hill, 1974	92	Chicken (*Gallus domesticus*)	5	U	FD	2	w	1	d	JV	B	GRO	BDWT	WO	85.9	172	82
109	Hamilton et al, 1979	6655	Japanese quail (*Coturnix japonica*)	6	U	FD	14	d	8	d	JV	B	GRO	BDWT	WO	86.8	174	86
110	Henry et al, 1987	6039	Chicken (*Gallus domesticus*)	4	U	FD	1	w	1	d	JV	M	GRO	BDWT	WO	92.3	185	83
111	Gibson et al, 1986	6048	Chicken (*Gallus domesticus*)	6	U	FD	10	w	30	w	JV	F	GRO	BDWT	WO	96.9	145	79
112	Stevenson et al, 1987	8184	Chicken (*Gallus domesticus*)	9	U	FD	140	d	28	w	JV	F	GRO	BDWT	WO	99.1	149	79
116	Stevenson et al, 1987	8184	Chicken (*Gallus domesticus*)	9	U	FD	140	d	28	w	LB	F	GRO	BDWT	WO	129	194	79
118	Dewar et al, 1983	37018	Chicken (*Gallus domesticus*)	4	U	FD	4	w	1	d	JV	B	GRO	BDWT	WO	143	286	79
119	Vohra and Kratzer, 1968	14404	Turkey (*Meleagris gallopavo*)	7	U	FD	21	d	NR	NR	JV	B	GRO	BDWT	WO	148	297	77
120	Roberson and Schaible, 1960	14538	Chicken (*Gallus domesticus*)	4	U	FD	4	w	1	d	JV	M	GRO	BDWT	WO	155	232	83
121	Roberson and Schaible, 1960	14538	Chicken (*Gallus domesticus*)	4	U	FD	4	w	1	d	JV	M	GRO	BDWT	WO	158	237	83
122	Southern and Baker, 1983	6368	Chicken (*Gallus domesticus*)	3	U	FD	14	d	8	d	JV	M	GRO	BDWT	WO	177	354	83
123	Oh et al, 1979	6627	Chicken (*Gallus domesticus*)	6	U	FD	4	w	1	d	JV	NR	GRO	BDWT	WO	252	503	79
124	Jackson et al, 1986	6133	Chicken (*Gallus domesticus*)	5	U	FD	1	w	40	w	SM	F	GRO	BDWT	WO	367	480	79
Survival (S)																		
148	Gibson et al, 1986	6048	Chicken (*Gallus domesticus*)	6	U	FD	10	w	30	w	JV	F	MOR	MORT	WO	68.8	87.1	80
151	Blalock and Hill, 1988	5868	Chicken (*Gallus domesticus*)	3	U	FD	12	d	1	d	JV	F	MOR	MORT	WO	109	219	79
155	Dewar et al, 1983	37018	Chicken (*Gallus domesticus*)	4	U	FD	4	w	1	d	JV	B	MOR	MORT	WO	143	286	80
156	Roberson and Schaible, 1960	14538	Chicken (*Gallus domesticus*)	4	U	FD	4	w	1	d	JV	M	MOR	SURV	WO	159	239	84
158	Hamilton et al, 1979	6655	Japanese quail (*Coturnix japonica*)	6	U	FD	14	d	0	d	JV	B	MOR	MORT	WO	183	366	87
159	Oh et al, 1979	6627	Chicken (*Gallus domesticus*)	6	U	FD	4	w	1	d	JV	NR	MOR	MORT	WO	252	503	80
164	Dewar et al, 1983	37018	Chicken (*Gallus domesticus*)	4	U	FD	4	w	2	w	JV	B	MOR	MORT	WO	327	491	79

AD = adult; AR = adrenal gland ; ASHC = ash content; AT = alimentary tract; B = both; BDWT = body weight changes; BEH = behavior; BIO = biochemical; BL = blood; BO = bone; w = body weight; CHM = chemical changes; d = day; DIFD = digestibility of food; DT = digestive tract; ENZ = enyzme level changes; F = female; FCNS = food consumption; FD = food; FDB = feeding behavior; FDCV = food conversion efficiency; FDNG = feeding behavior; GBCM = general biochemical ; GENZ = general enzyme changes; GHIS = general histology; GRO = growth; GZ = gizzard; HIS = histological changes; HMCT = hematocrit; HMGL = hemoglobin; ITX = intoxication; JV = juvenile; kg = kilograms; LB = egg-laying bird; LI = liver; LIPD = lipid; LOAEL = lowest observed adverse effect level; LU = lung; mg = milligrams; mo = months; M = male; M = measured; MCPR = microsomal proteins; MOR = effects on mortality and survival; MORT = mortality; NCRO = necrosis; NOAEL = No Observed Advese Effect Level; NR = Not reported; OD = oviduct; ORW = organ weight changes; ORWT = organ weight changes; PHY = physiology; PROG = progeny counts/numbers; PS = pancreas; PTH = pathology; REP = reproduction; RHIS = reprodutive organ histology; SM = sexually mature; SMIX = weight relative to body weight; SP = spleen; SR = serum; SURV = survival; TE = testes; TEWT USTR = ultrastructural changes; w = weeks; WI = wings; WO = whole organism; yr = year.

*NOAEL and LOAEL values that are equal and from the same reference represent different experimental designs.

Only bounded LOAELs for S,G, & R are shown.

Geomean of Bounded G,R LOAELs: 154.0

Table H-14. LOEC Calculations
Updated Ecological Risk Characterization
Conductorlab Site, RTN 2-00053

Parameter	Recetpor	Trophic Pathway	Soil Concentration (mg/kg)	LOAEL TRV (mg/kg bw/d)	FIR (kg bw/d)	SIR (%)	Concentration in Diet (mg/kg)	Doil Soil (mg/kg bw/d)	Dose Diet (mg/kg bw/d)	Total Dose (mg/kg bw/d)	HQ	LOEC (mg/kg)	Basis
Antimony	Bird	Herbivore	NA	NA	0.19	0.139	NA	NA	NA	NA	-	NA	LOAELs not available.
		Insectivore	NA	NA	0.214	0.164	NA	NA	NA	NA	-		
		Carnivore	NA	NA	0.0353	0.057	NA	NA	NA	NA	-		
	Mammal	Herbivore	3259	15.9	0.0875	0.032	77.839	9.125	6.811	15.936	1.00	74	Geomean of bounded G&R LOAELs
		Insectivore	74	15.9	0.209	0.03	74.000	0.464	15.466	15.930	1.00		
		Carnivore	1318	15.9	0.13	0.043	65.900	7.368	8.567	15.935	1.00		
Arsenic	Bird	Herbivore	134	4.5	0.19	0.139	5.028	3.539	0.955	4.494	1.00	92	Geomean G, no bounded S&R LOAELS
		Insectivore	92	4.5	0.214	0.164	5.879	3.229	1.258	4.487	1.00		
		Carnivore	2174	4.5	0.0353	0.057	4.141	4.374	0.146	4.520	1.00		
	Mammal	Herbivore	1652	10	0.0875	0.032	61.983	4.626	5.424	10.049	1.00	744	Geomean of bounded G&R LOAELs
		Insectivore	744	10	0.209	0.03	25.716	4.665	5.375	10.039	1.00		
		Carnivore	1718	10	0.13	0.043	3.415	9.604	0.444	10.048	1.00		
Cadmium	Bird	Herbivore	157	6.02	0.19	0.139	9.833	4.146	1.868	6.015	1.00	4.5	Geomean of bounded G&R LOAELs
		Insectivore	4.5	6.02	0.214	0.164	27.378	0.158	5.859	6.017	1.00		
		Carnivore	2795	6.02	0.0353	0.057	12.072	5.624	0.426	6.050	1.00		
	Mammal	Herbivore	1917	8.7	0.0875	0.032	38.550	5.368	3.373	8.741	1.00	7.6	Geomean of bounded G&R LOAELs
		Insectivore	7.61	8.7	0.209	0.03	41.572	0.048	8.689	8.736	1.00		
		Carnivore	1364	8.7	0.13	0.043	8.602	7.625	1.118	8.743	1.00		
Chromium (III)	Bird	Herbivore	425	14.48	0.19	0.139	17.425	11.224	3.311	14.535	1.00	144	Geomean of bounded R LOAELs
		Insectivore	144	14.48	0.214	0.164	44.064	5.054	9.430	14.484	1.00		
		Carnivore	5039	14.48	0.0353	0.057	120.991	10.139	4.271	14.410	1.00		
	Mammal	Herbivore	8716	55.4	0.0875	0.032	357.356	24.405	31.269	55.673	1.00	792	Geomean of Unbounded G&R LOAELs
		Insectivore	792	55.4	0.209	0.03	242.352	4.966	50.652	55.617	1.00		
		Carnivore	6478	55.4	0.13	0.043	145.482	36.212	18.913	55.125	1.00		
Copper	Bird	Herbivore	1119	35.4	0.19	0.139	31.625	29.553	6.009	35.562	1.00	244	Geomean of bounded G&R LOAELs
		Insectivore	244	35.4	0.214	0.164	125.660	8.563	26.891	35.455	1.00		
		Carnivore	17129	35.4	0.0353	0.057	31.491	34.465	1.112	35.577	1.00		
	Mammal	Herbivore	43624	133	0.0875	0.032	133.920	122.147	11.718	133.865	1.00	1175	Geomean Bounded G,R LOAELs with highest growth LOAEL outlier removed
		Insectivore	1175	133	0.209	0.03	605.125	7.367	126.471	133.838	1.00		
		Carnivore	23182	133	0.13	0.043	32.897	129.587	4.277	133.864	1.00		
Lead	Bird	Herbivore	1494	42.7	0.19	0.139	15.998	39.457	3.040	42.496	1.00	488	Geomean of bounded G&R LOAELs
		Insectivore	488	42.7	0.214	0.164	118.817	17.127	25.427	42.554	1.00		
		Carnivore	19618	42.7	0.0353	0.057	85.361	39.473	3.013	42.487	1.00		
	Mammal	Herbivore	55500	136.7	0.0875	0.032	121.564	155.400	10.637	166.037	1.21	3310	Geomean of bounded G&R LOAELs
		Insectivore	3310	136.7	0.209	0.03	556.961	20.754	116.405	137.159	1.00		
		Carnivore	27500	136.7	0.13	0.043	99.111	153.725	12.884	166.609	1.22		
Vanadium	Bird	Herbivore	68.9	1.89	0.19	0.139	0.334	1.820	0.063	1.883	1.00	43	Geomean of bounded G&R LOAELs
		Insectivore	42.7	1.89	0.214	0.164	1.793	1.499	0.384	1.882	1.00		
		Carnivore	769	1.89	0.0353	0.057	9.459	1.547	0.334	1.881	1.00		
Zinc	Bird	Herbivore	2950	154	0.19	0.139	403.920	77.910	76.745	154.654	1.00	474	Geomean of bounded G&R LOAELs
		Insectivore	474	154	0.214	0.164	645.404	16.636	138.116	154.752	1.00		
		Carnivore	73,880	154	0.0353	0.057	173.233	148.654	6.115	154.769	1.00		

Honeywell

DRAFT

APPENDIX F
REPRESENTATIVENESS EVALUATION AND DATA USABILITY ASSESSMENT (REDUA)

Appendix F:
Representativeness Evaluation and Data Usability Assessment (REDUA)

Pursuant to 310 CMR 40.1056(2)(k) of the MCP, a Representativeness Evaluation is required to document the adequacy of the spatial and temporal data sets used to support this Permanent Solution Statement with Conditions (PSS). In addition, a Data Usability Assessment is required to document that the data relied upon are scientifically valid and defensible, and of a sufficient level of precision, accuracy and completeness to support the PSS. The Representativeness Evaluation is provided in **Section F.1** and the Data Usability Assessment is provided in **Section F.2** below.

The data evaluated herein are those that are relevant to the PSS, which include off-site laboratory results for soil, overburden groundwater, bedrock groundwater, surface water, and sediment results that have been selected from available investigation events to be included in the Human Health Risk Assessment (HHRA) for the Site. A summary of sample locations and field sample IDs, laboratory sample delivery groups (SDGs), dates of collection, and analytical methods are presented in **Table F-1a through F-1e** for each media. In addition to these data, chromium results from onsite field-testing using x-ray florescence (XRF) spectroscopy analysis are used to supplement available off-site data. A summary of XRF samples and results are presented in **Table F-2**. The data evaluated herein are considered adequate to support this PSS.

F.1 Representativeness Evaluation

According to MassDEP Policy No. WSC-07-350, the Representativeness Evaluation must provide the following:

- An evaluation and demonstration of the adequacy of the spatial and temporal data sets used to support this PSS, considering information such as the Site's previous use, hydrogeological and physical characteristics and field observations should be considered, in addition to analytical data;
- A determination as to whether the data set in total sufficiently characterizes conditions at the Site and supports a coherent Conceptual Site Model;
- A determination as to whether there is enough information from the right locations, both spatially and temporally, to support this PSS;
- A demonstration as to the adequacy of cumulative data to characterize the nature and extent of contamination at the Site, the risk to health, safety, public welfare and the environment, and the elimination/control of OHM sources; and
- An identification of inconsistent and incomplete information and sources of uncertainty and a justification of why such inconsistent information, data gaps or uncertainty are not sufficient to undermine this PSS.

The Representativeness Evaluation is provided in the following sub-sections.

F.1.1 Conceptual Site Model

The Conceptual Site Model is discussed within Section 1.3 of the PSS to which this REDUA is appended.

F.1.2 Use of Field Screening Data

During the investigations completed in 2017 and 2018, portable XRF instruments were used to analyze soil samples for total chromium in soil. As a quality assurance step, a subset of samples were submitted as split samples for off-site analysis at a fixed laboratory. A discussion of data quality and usability is presented in **Section F.2**. These samples are determined to be useable in the HHRA in combination with sample data

obtained from off-site laboratories. Based on an evaluation of the data, the fixed laboratory data were used where available, and the XRF data were used for samples that were not analyzed at the fixed laboratory.

F.1.3 Sampling Rationale

Soil, groundwater, surface water, and sediment sampling has been conducted at the Site.

Soil sampling locations mainly focused on the source areas at 430 Main Street, proximate to former buildings, leach fields and areas of historic operation, which are the areas considered most likely to contain SitF-derived contaminants based on Site history and prior uses. Soil samples were collected at various depth ranges. The soil samples collected at the Site were analyzed for volatile organic compounds (VOCs) and metals, consistent with the Conceptual Site Model and Site history. The soil sampling that has been conducted is considered sufficient for defining the limits of the Site for soil. The soil samples summarized in **Table F-1a** provide a comprehensive assessment of soil conditions throughout the Site.

Groundwater sampling locations focused on-property at 430 Main Street and off-property to the west across Main Street and further downgradient across Mill Street. This provided an extensive network of permanent wells that were installed and sampled to assist in defining the nature and extent of the contamination in groundwater. There are shallow wells, deeper wells, wells drilled to the top of bedrock, and bedrock wells located at the Site, which provide information for vertical delineation of the Site. Groundwater samples collected at the Site have been analyzed primarily for VOCs and metals. Using the wells installed at the Site, the horizontal and vertical extent of chlorinated VOC and metal contamination in groundwater has been delineated and the groundwater data are considered sufficient for that purpose.

Sediment and surface water sampling were collected from the Unnamed Brook adjacent and downgradient of the on-property portion of the Site. The Unnamed Brook is an intermittent stream that flows in a westerly direction into a wetland that ultimately discharges into the Gratuity Brook. The surface water and sediment samples collected and analyzed for VOCs and metals, consistent with the Site history.

Soil, groundwater, surface water, and sediment samples summarized in **Tables F-1a through F-1e** respectively, depict current conditions at the Site. Sampling locations are shown on **Figures 2 and 3** in the PSS.

Overall, the sampling locations described herein for soil, groundwater, surface water and sediment are deemed sufficient to delineate the Disposal Site Boundary, calculate exposure point concentrations (EPCs), identify Hot Spots and exposure pathways and receptors, and demonstrate source elimination or control.

F.1.4 Spatial Distribution, Collection Methods and Handling of Samples

Soil, groundwater, surface water, and sediment samples were collected from locations determined to be expressly representative of Site conditions based on Site history, the Conceptual Site Model and field screening (including visual and olfactory observations). Samples were collected to define the Disposal Site Boundary, characterize the extent of SitF-related contaminants, and assess potential exposures.

The samples collected were spatially distributed within and outside of the release area. Soil samples collected at the Site were grab or composite samples and were collected to be representative of the Site conditions. Each soil, groundwater, surface water, and sediment sample collected at the Site was placed in the prescribed sample collection container(s) and was stored on ice until it could be mechanically refrigerated. During sample collection, samples were collected utilizing MassDEP sampling protocols in effect at the time of sample collection.

F.1.5 Temporal Distribution of Samples

Soil, groundwater, surface water and sediment were monitored or sampled one or more times during the investigation activities conducted between 1985 to the present. Tables of sampling and monitoring events is included as **Table F-1a** (soil sampling), **Table F-1b and F-1c** (groundwater sampling, seasonal and bedrock, respectively), **Table F-1d** (surface water sampling) and **Table F-1e** (sediment sampling).

The soil dataset includes samples collected from 1985 through 2018 from the 430 Main Street property, where all suspected releases occurred within the Site. Soil conditions did not change substantially over this time period. These samples are considered to provide adequate temporal coverage.

Groundwater sampling has been conducted on a consistent seasonal basis from select permanent wells at the Site with the subset of groundwater wells sampled at the Site increasing or decreasing depending on the scope of ongoing investigation activities, including semiannual sitF-wide monitoring, bedrock in-situ chemical oxidation (ISCO) monitoring, and in-situ chemical reduction (ISCR) monitoring. During all seasonal sample events, monitoring wells water levels were gauged and were sampled to delineate VOC and metal (Cr and Cr^{+6}) concentrations in groundwater and to evaluate plume stability.

Surface water sampling was also conducted on a consistent seasonal basis from select locations along the Unnamed Brook. During all quarterly sample events, surface water was sampled for VOC and metal (Cr and Cr^{+6}) analysis to determine and evaluate groundwater to surface water contaminant migration.

Sediment samples are co-located with surface water samples within the Unnamed Brook. Sediments were collected from various investigations from 2005, 2007, and 2018 to determine and delineate VOC and metal concentrations in sediments.

The seasonal temporal sampling of the groundwater monitoring wells, surface water locations, and sediment locations at the Site is considered sufficient for the purposes of evaluating the nature and extent of contamination at the Site, delineating the Disposal Site Boundary, and characterizing risk.

F.1.6 Inconsistency and Uncertainty

The REDUA guidance identifies the following as potential inconsistent information or uncertainty to be discussed if such information is disregarded: site assessment data inconsistent with historical information, field screening data/ observations inconsistent with analytical data, and the use of data to support the Permanent Solution in spite of identified analytical or other deficiencies.

No inconsistencies or uncertainties were identified in the soil, groundwater, surface water, or sediment to support this PSS. The soil, groundwater, surface water, and sediment data sets for the Site are robust. The Site data are consistent with the Conceptual Site Model.

F.1.7 Completeness

No data gaps were identified in the sampling and analytical information used to support this PSS. The information contained herein and the number and locations of soil, groundwater, surface water, and sediment samples collected are adequate to satisfy the objectives of the PSS.

F.1.8 Information Considered Unrepresentative

Various subsets of soil, groundwater, and surface water data that have been collected at the Site were considered no longer representative of current Site conditions and were not used in this PSS or to support the HHRA.

Soil sampling results were generally excluded from the dataset used for the PSS and HHRA for one or more of the following reasons:

- Sample was collected from excavated soil and was not representative of current site conditions
- Sample was a field duplicate QC sample or other QC sample (e.g., matrix spike)
- Sample was analyzed for toxicity characteristic leaching procedure (TCLP) and not bulk soil analysis
- Sample was associated with the wastewater treatment system
- Sample location was considered representative of background conditions or was a "clean" sample (e.g., was analyzed for VOCs and none were detected)
- Sample information such as sampling depth could not be verified
- Sample was representative of a waste material and not soil

Data from groundwater prior to 2017 with the exception of the bedrock hotspot groundwater (2013-2014); surface water prior to 2019; and sediment prior to 2005 were used as part of Site investigation activities to evaluate changes in concentrations over time, but they were not used to support the PSS or in the risk calculations in the human health risk characterization, because data from 2017 to 2021 were considered to best represent potential exposures at the Site. In addition, the groundwater samples from 2017 to 2021 and surface water samples from 2019 to 2021 were collected after the conclusion of groundwater remedial activities at the Site, including operation of the groundwater treatment system and ISCO and ISCR injections.

All other soil, groundwater, surface water and sediment remaining in the data set were used to evaluate the existing and future conditions of the Disposal Site Boundary. These samples were considered representative and were used in the HHRA.

F.2 Data Usability Assessment

The data usability assessment has an analytical and a field component. The analytical data usability assessment is used to evaluate whether analytical data points are scientifically valid and defensible and of a sufficient level of precision, accuracy, and sensitivity to support this PSS. The field data usability assessment evaluates whether the sample that is collected and delivered to the laboratory is representative of the sampling point. The data usability assessment is provided below.

F.2.1 Sample Analytical Data Usability

Analytical data are subject to the "presumptive certainty" requirements as defined in "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data in Support of Response Actions Conducted Under the Massachusetts Contingency Plan (MCP)" (BWSC-CAM-VIIA, rev. 2 dated January 19, 2017), or previous MassDEP guidance that was available beginning in 2004 with subsequent revisions (MassDEP, 2004; MassDEP, 2010). Formal data validation was completed for the majority of analytical data used to support contamination and risk assessments at the site. Validation was completed in accordance with the Honeywell Laboratory Quality Assurance Plan (Honeywell, 2007) and general processes described in USEPA Region 1 or USEPA National Functional Guidelines that were available at the time the investigations were competed. Data usability criteria as defined in "MCP Representativeness Evaluations and Data Usability Assessments" (BWSC, 2007; Policy #WSC-07-350), as well as the individual analytical methods defined in MassDEP's *Compendium of Analytical Methods,* to assess data quality and data usability.

During the data validation reviews, data qualifiers defined in EPA guidance documents were added to laboratory results, if necessary, to identify data usability. These qualifiers include:

- U = The target compound was not detected at a concentration greater than, or equal to, the quantitation limit.
- J = The reported concentration is considered an estimated value.

- J- = The reported concentration is considered an estimated value with low bias.
- J+ = The reported concentration is considered an estimated value with high bias.
- UJ = The target compound was not detected, and the reporting limit is considered to be estimated.
- R = The reported value is rejected and is considered to be unusable.

Results qualified as estimated are considered usable with consideration of uncertainties related to the estimated values. Results qualified as rejected are considered unusable. Usable results were obtained for the majority of samples and methods listed on **Table F-1a through F-1e** (>99 percent). A small subset of sample results was qualified as rejected, and those results are not used to support the PSS nor in the risk assessments presented in this report. Data qualifiers are shown for the data used in the PSS and the HHRA in the tables in Attachment A of the HHRA in **Appendix C** of the PSS.

Data validation reports are presented in **Appendix F-1.** Data usabilty discussions are provided for each medium in the following subsections.

Samples collected at the Site were analyzed by the following laboratories:

- Columbia Analytical Services, Rochester, New York (CAS-NY)
- Severn Trent Laboratory, Westfield, Massachusetts (STL-WSTFLD)
- Severn Trent Laboratory, Pittsburg, Pennsylvania (STL-WSTFLD)
- Test America Laboratory, Buffalo, New York (TAL-BUFF)

F.2.1.1 Soil

Soil samples used in the HHRA were collected during investigation completed from 2003 through 2018 as indicated in **Table F-1a**. A small subset of samples collected in 1993 provides qualitative results to supplement the more recent sampling data.

Data validation reports are provided for samples collected from 2007 to present in **Appendix F-1a**. Soil samples collected during investigations completed from 2003 to 2006 were presented in previous site investigation report submitted to the MassDEP.

Total chromium data from the on-site XFR analysis are presented in **Table F-2**. Data quality interpretations of the XRF results are based on comparability to results of split samples analyzed by USEPA Method 6010 at TAL-BUFF in 2017 and 2018. Good correlation of relative concentrations of total chromium was observed between split samples. Relative percent differences (RPDs) ranged from 3 to 105 with an average RPD of 40 for samples where RPD was calculated. Nineteen of 27 split samples had RPDs less than 50, and five of five XRF samples reported as non-detect (ND) had off-site values less than the XRF detection limit indicating good quantitative comparability. Based on the split sample review, the XRF results are interpreted to be acceptable for use in the contamination assessment and HHRA.

F.2.1.2 Groundwater

Groundwater samples include both overburden and bedrock locations. Overburden groundwater samples were collected from 2017 through 2021. Samples and analyses are summarized in **Table F-1b.** Bedrock groundwater samples were collected from 2013 through 2014. Bedrock groundwater samples are summarized in **Table F-1c.** Data validation was completed for all groundwater samples. Data validation reports are presented in **Appendix F-1b and F-1c**.

D.2.1.3 Surface Water

Surface water samples from the most current available datasets were selected for use in the Method 3 Risk Characterization. Samples were collected from 2019 through 2021. Samples and analyses are summarized

in **Table F-1d.** Data validation was completed for all surface water samples. Data validation reports are presented in **Appendix F-1d**.

F.2.1.4 Sediment

Sediment samples from three sampling events were selected for use in the Method 3 Risk Characterization. Samples were collected in events completed in 2005, 2007, and 2018. Samples and analyses are summarized in **Table F-1e**. Data validation was completed for surface water samples from 2007 and 2018. Data validation reports are presented in **Appendix F-1e**. Sediment samples collected during investigations completed in 2005 were presented in a previous site investigation report submitted to the MassDEP.

F.2.2 Sample Field Data Usability

The field component of the Data Usability Assessment evaluates whether the sampling procedure ensures that the samples collected and delivered to the laboratory are representative of the sampling points. The review elements included but were not limited to appropriate sample collection procedures, holding times, sample receipt, appropriate sample containers, and sample preservation, if applicable. As summarized in previously submitted reports, Wood collected soil, groundwater, surface water, and sediment samples at the Site for laboratory analysis. The samples were collected in laboratory-supplied containers. All samples were stored in a cooler on ice or in a refrigerator at temperatures less than 6° C in order to aid in sample preservation. All samples were transferred to the laboratories under chain-of-custody, and analyzed within the appropriate holding times. Any qualifications necessary for field components were also identified and noted and can be found in previous submittals to the MassDEP or in the data validation reports in **Appendix F-1**.

F.2.3 Data Usability Summary

Soil, groundwater, surface water, and sediment data are considered to be usable under the MCP, based on the validation of these results in accordance with MassDEP and federal guidance. The data are scientifically valid and defensible, and of a sufficient level of precision, accuracy, and completeness to support this PSS. Data qualified as "rejected" were not used to support the PSS.

F.3 References

Honeywell, 2007. Honeywell Laboratory Quality Assurance Plan Honeywell International 101 Columbia Road Morristown, NJ 07962-1139; Revision: 1.0; V9-1-05; September 1, 2005 with subsequent revisions.

Massachusetts Department of Environmental Protection (MassDEP), 2004. "Compendium of MCP Analytical Methods"; Bureau of Waste Site Cleanup; 1 Winter Street, Boston, Massachusetts 02108; May 2004.

MassDEP, 2007. MCP Representativeness Evaluations and Data Usability Assessments. Bureau of Waste Site Cleanup. Policy #WSC-07-350. September 19, 2007.

MassDEP, 2010. "The Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods Used in Support of Response Actions for the Massachusetts Contingency Plan (MCP)"; Bureau of Waste Site Cleanup; 1 Winter Street, Boston, Massachusetts 02108; WSC-CAM; July 2010 with subsequent revisions.

MassDEP, 2017. Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data in Support of Response Actions Conducted Under the Massachusetts Contingency Plan (MCP). Bureau of Waste Site Cleanup. BWSC-CAM-VIIA, rev. 2 dated January 19, 2017.

Table F-1a
Sample and Analysis Summary (Soil)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:	VOCs	SVOCs	PCBs	PEST	HERB	EPH	VPH	Metals	Hg	Hg	As	Cr6	Cr6
						Method:	8260	8270	8082	8081	8151	MADEP	MADEP	6010	7470	7471	7060	7196	NA
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
SOIL			WW	CLSoil10	C052893-CLSoil10	5/28/1993	REG	57							7			1		
SOIL			WW	CLSoil6	C052893-CLSoil6	5/28/1993	REG	57							7			1		
SOIL			WW	CLSoil7	C052893-CLSoil7	5/28/1993	REG	57							7			1		
SOIL			WW	CLSoil8	C052893-CLSoil8	5/28/1993	REG	57							7			1		
SOIL			WW	CLSoil9	C052893-CLSoil9	5/28/1993	REG	57							7			1		
SOIL		R2318475	CAS-NY	B-01	B1(0-1)	9/15/2003	REG	71							1					1
SOIL		R2318475	CAS-NY	B-02	B2(0-1)	9/15/2003	REG	71	66						22		1			1
SOIL		R2318475	CAS-NY	B-11	B11(0-2)	9/15/2003	REG	71							22		1			1
SOIL		R2318475	CAS-NY	B-01	B1(11-13)	9/16/2003	REG	71	66						1					1
SOIL		R2318475	CAS-NY	B-01	B1(5-7)	9/16/2003	REG	71							1					1
SOIL		R2318475	CAS-NY	B-01	B1(9-11)	9/16/2003	REG	71												
SOIL		R2318475	CAS-NY	B-02	B2(13-15)	9/16/2003	REG	71							22		1			1
SOIL		R2318475	CAS-NY	B-02	B2(5-7)	9/16/2003	REG	71							22		1			1
SOIL		R2318475	CAS-NY	B-02	B2(7-9)	9/16/2003	REG	71												
SOIL		R2318475	CAS-NY	B-03	B3(11-13)	9/16/2003	REG	71							22		1			1
SOIL		R2318475	CAS-NY	B-03	B3(13-15)	9/16/2003	REG	71	66						22		1			1
SOIL		R2318475	CAS-NY	B-03	B3(5-7)	9/16/2003	REG	71							22		1			1
SOIL		R2318475	CAS-NY	B-03	B3(9-11)	9/16/2003	REG	71												
SOIL		R2318475	CAS-NY	B-04	B4(10-11)	9/16/2003	REG	71							1					1
SOIL		R2318475	CAS-NY	B-04	B4(9-10)	9/16/2003	REG	71												
SOIL		R2318475	CAS-NY	B-05	B5(1-2)	9/17/2003	REG	71							1					1
SOIL		R2318475	CAS-NY	B-05	B5(3-4)	9/17/2003	REG	71							1					1
SOIL		R2318475	CAS-NY	B-05	B5(4)	9/17/2003	REG	71	66						1					1
SOIL		R2318475	CAS-NY	B-09	B9(12-14)	9/17/2003	REG	71							1					1
SOIL		R2318475	CAS-NY	B-10	B10(5-7)	9/17/2003	REG	71												
SOIL		R2318475	CAS-NY	B-10	B10(7-9)	9/17/2003	REG	71							1					1
SOIL		R2318475	CAS-NY	B-10	B10(9-11)	9/17/2003	REG	71							1					1
SOIL		R2318475	CAS-NY	B-11	B11(12-13)	9/17/2003	REG	71							22		1			1
SOIL		R2318475	CAS-NY	B-11	B11(5-7)	9/17/2003	REG	71							22		1			1
SOIL		R2318475	CAS-NY	B-11	B11(7-9)	9/17/2003	REG	71												
SOIL		R2318475	CAS-NY	B-12	B12(11-13)	9/17/2003	REG	71							22		1			1
SOIL		R2318475	CAS-NY	B-12	B12(5-6)	9/17/2003	REG	71							22		1			1
SOIL		R2318475	CAS-NY	B-12	B12(6-7)	9/17/2003	REG	71												
SOIL		R2318475	CAS-NY	B-12	B12(7-9)	9/17/2003	REG	71							22		1			1
SOIL		216582	STL-WSTFLD	B-13	C062104-B13-13-14	6/21/2004	REG	71	57				4		22		1		1	
SOIL		216582	STL-WSTFLD	B-14	C062104-B14-12-13	6/21/2004	REG	71	57				4		22		1		1	
SOIL		216582	STL-WSTFLD	B-14	C062104-B14-14-15	6/21/2004	REG	71												
SOIL		216582	STL-WSTFLD	B-15	C062104-B15-0-2	6/21/2004	REG	71	57				4		22		1		1	
SOIL		216582	STL-WSTFLD	B-15	C062104-B15-12-13	6/21/2004	REG	71												
SOIL		216582	STL-WSTFLD	B-15	C062104-B15-6-8	6/21/2004	REG	71	57				4		22		1		1	
SOIL		216582	STL-WSTFLD	B-16	C062104-B16-10-12	6/21/2004	REG	71												

prepared by WCG
reviewed by CR
7/27/22

Table F-1a
Sample and Analysis Summary (Soil)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	SVOCs	PCBs	PEST	HERB	EPH	VPH	Metals	Hg	Hg	As	Cr6	Cr6
						Method:		8260	8270	8082	8081	8151	MADEP	MADEP	6010	7470	7471	7060	7196	NA
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
SOIL		216582	STL-WSTFLD	B-16	C062104-B16-4-6	6/21/2004	REG	71	57				3		22		1		1	
SOIL		216582	STL-WSTFLD	B-16	C062104-B16-6-8	6/21/2004	REG	71	57				3		22		1		1	
SOIL		216582	STL-WSTFLD	B-17	C062104-B17-12-12.5	6/21/2004	REG	71												
SOIL		216582	STL-WSTFLD	B-18	C062104-B18-12-13.2	6/21/2004	REG	71												
SOIL		216582	STL-WSTFLD	B-18	C062104-B18-4-6	6/21/2004	REG	71	58				4		22		1		1	
SOIL		216582	STL-WSTFLD	B-18	C062104-B18-6-7.5	6/21/2004	REG	71	57				4		22		1		1	
SOIL		216582	STL-WSTFLD	B-19	C062104-B19-12-13.5	6/21/2004	REG	71												
SOIL		216582	STL-WSTFLD	B-20	C062104-B20-14-14.8	6/21/2004	REG	71												
SOIL		216582	STL-WSTFLD	B-20	C062104-B20-4-6	6/21/2004	REG	71	57				4		22		1		1	
SOIL		216582	STL-WSTFLD	B-20	C062104-B20-8-10	6/21/2004	REG	71	57				4		22		1		1	
SOIL		218426	STL-WSTFLD	B-15	C062104-B15-12-13	6/21/2004	REG								6					
SOIL		218426	STL-WSTFLD	B-16	C062104-B16-10-12	6/21/2004	REG								6					
SOIL		218426	STL-WSTFLD	B-17	C062104-B17-12-12.5	6/21/2004	REG								6					
SOIL		218426	STL-WSTFLD	B-18	C062104-B18-12-13.2	6/21/2004	REG								6					
SOIL		218426	STL-WSTFLD	B-19	C062104-B19-12-13.5	6/21/2004	REG								6					
SOIL		218426	STL-WSTFLD	B-20	C062104-B20-14-14.8	6/21/2004	REG								6					
SOIL		216648	STL-WSTFLD	B-21B	C062204-B21B-14-14.5	6/22/2004	REG	71												
SOIL		216648	STL-WSTFLD	B-21B	C062204-B21B-8-10	6/22/2004	REG	71	64				4		22		1		1	
SOIL		216648	STL-WSTFLD	B-22	C062204-B22-2-3	6/22/2004	REG	71	57				4		22		1		1	
SOIL		216648	STL-WSTFLD	B-22	C062204-B22-9-10	6/22/2004	REG	71												
SOIL		216648	STL-WSTFLD	B-24	C062204-B24-10-12	6/22/2004	REG	71												
SOIL		216648	STL-WSTFLD	B-24	C062204-B24-4-6	6/22/2004	REG								22		1		1	
SOIL		216648	STL-WSTFLD	B-24	C062204-B24-8-10	6/22/2004	REG								22		1		1	
SOIL		216648	STL-WSTFLD	B-25	C062204-B25-10-11	6/22/2004	REG								22		1		1	
SOIL		216648	STL-WSTFLD	B-25	C062204-B25-12-12.8	6/22/2004	REG	71												
SOIL		216648	STL-WSTFLD	B-25	C062204-B25-4-6	6/22/2004	REG								22		1		1	
SOIL		216648	STL-WSTFLD	B-26	C062204-B26-2-4	6/22/2004	REG	71	63				4		22		1		1	
SOIL		216648	STL-WSTFLD	B-26	C062204-B26-8-10	6/22/2004	REG	71	57				4		22		1		1	
SOIL		216648	STL-WSTFLD	B-32	C062204-B32-4-6	6/22/2004	REG								22		1		1	
SOIL		216648	STL-WSTFLD	B-32	C062204-B32-6-8	6/22/2004	REG	71							22		1		1	
SOIL		216648	STL-WSTFLD	B-33	C062204-B33-4-6	6/22/2004	REG								22		1		1	
SOIL		216648	STL-WSTFLD	B-33	C062204-B33-6-8	6/22/2004	REG	72							22		1		1	
SOIL		216648	STL-WSTFLD	B-34	C062304-B34-0.4-2	6/23/2004	REG	71	57				4		22		1		1	
SOIL		216648	STL-WSTFLD	B-35	C062304-B35-0.4-2.4	6/23/2004	REG	71	57				4		22		1		1	
SOIL		216648	STL-WSTFLD	B-35	C062304-B35-2.4-4.4	6/23/2004	REG	71	57				4		22		1		1	
SOIL		216648	STL-WSTFLD	B-36A	C062304-B36A-0.4-2.1	6/23/2004	REG	71	57				4		22		1		1	
SOIL		216648	STL-WSTFLD	B-39	C062304-B39-2-2.9	6/23/2004	REG	71	59				4		22		1		1	
SOIL		216714	STL-WSTFLD	B-38	C062404-B38-2-4	6/24/2004	REG								22		1		1	
SOIL		216714	STL-WSTFLD	B-38	C062404-B38-4-6	6/24/2004	REG	71	57				5		22		1		1	
SOIL		216714	STL-WSTFLD	B-38	C062404-B38-8-10	6/24/2004	REG	71							22		1		1	
SOIL		216714	STL-WSTFLD	B-40	C062404-B40-0-2	6/24/2004	REG	71							22		1		1	

prepared by WCG
reviewed by CR
7/27/22

Table F-1a
Sample and Analysis Summary (Soil)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	SVOCs	PCBs	PEST	HERB	EPH	VPH	Metals	Hg	Hg	As	Cr6	Cr6
						Method:		8260	8270	8082	8081	8151	MADEP	MADEP	6010	7470	7471	7060	7196	NA
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
SOIL		216714	STL-WSTFLD	B-40	C062404-B40-6-7.9	6/24/2004	REG	71							22		1		1	
SOIL		216714	STL-WSTFLD	B-41	C062404-B41-0.5-1	6/24/2004	REG								22		1		1	
SOIL		216714	STL-WSTFLD	B-45	C062404-B45-9-11	6/24/2004	REG	71							22		1		1	
SOIL		216714	STL-WSTFLD	BGS-1	C062404-BGS1-0.5-1	6/24/2004	REG								22		1		1	
SOIL		216714	STL-WSTFLD	BGS-1	C062404-BGS1-1-1.5	6/24/2004	REG								22		1		1	
SOIL		219567	STL-WSTFLD	B-46	C100404-B46-S2	10/4/2004	REG								6				3	
SOIL		219567	STL-WSTFLD	B-46	C100404-B46-S3	10/4/2004	REG								6				1	
SOIL		219567	STL-WSTFLD	B-46	C100404-B46-S5	10/4/2004	REG								6				1	
SOIL		219567	STL-WSTFLD	B-47	C100404-B47-S2	10/4/2004	REG								6				1	
SOIL		219567	STL-WSTFLD	B-47	C100404-B47-S3	10/4/2004	REG								6				1	
SOIL		219567	STL-WSTFLD	B-47	C100404-B47-S5	10/4/2004	REG								6				1	
SOIL		219660	STL-WSTFLD	B-48	C100404-B48-S3	10/4/2004	REG	71							6				3	
SOIL		219660	STL-WSTFLD	B-48	C100404-B48-S4	10/4/2004	REG	71							6				1	
SOIL		219660	STL-WSTFLD	B-48	C100404-B48-S6	10/4/2004	REG	71							6				1	
SOIL		219660	STL-WSTFLD	B-49	C100404-B49-S3	10/4/2004	REG								6				1	
SOIL		219660	STL-WSTFLD	B-49	C100404-B49-S5	10/4/2004	REG								6				1	
SOIL		219660	STL-WSTFLD	B-49	C100404-B49-S6	10/4/2004	REG								6				1	
SOIL		219660	STL-WSTFLD	B-50	C100404-B50-S3	10/4/2004	REG								6				1	
SOIL		219660	STL-WSTFLD	B-50	C100404-B50-S4	10/4/2004	REG								6				1	
SOIL		219660	STL-WSTFLD	B-50	C100404-B50-S6	10/4/2004	REG								6				1	
SOIL		219660	STL-WSTFLD	B-54	C100504-B54-S3	10/5/2004	REG	71							6				1	
SOIL		219660	STL-WSTFLD	B-54	C100504-B54-S5	10/5/2004	REG	71							6				1	
SOIL		219660	STL-WSTFLD	B-54	C100504-B54-S9	10/5/2004	REG	71							6				1	
SOIL		219660	STL-WSTFLD	B-55	C100504-B55-S8	10/5/2004	REG	71							6				1	
SOIL		219660	STL-WSTFLD	B-56	C100504-B56-S2	10/5/2004	REG	71							6				1	
SOIL		219660	STL-WSTFLD	B-56	C100504-B56-S4	10/5/2004	REG	71							6				1	
SOIL		219660	STL-WSTFLD	B-56	C100504-B56-S8	10/5/2004	REG	71							6				1	
SOIL		219660	STL-WSTFLD	B-57	C100504-B57-S2	10/5/2004	REG	71							6				1	
SOIL		219660	STL-WSTFLD	B-57	C100504-B57-S4	10/5/2004	REG	71							6				1	
SOIL		219660	STL-WSTFLD	B-57	C100504-B57-S8	10/5/2004	REG	71							6				1	
SOIL		219660	STL-WSTFLD	B-58	C100604-B58-S8	10/6/2004	REG	71							6				1	
SOIL		219660	STL-WSTFLD	B-59	C100604-B59-S4	10/6/2004	REG	71												
SOIL		219660	STL-WSTFLD	B-59	C100604-B59-S5	10/6/2004	REG								6				1	
SOIL		219757	STL-WSTFLD	B-61	C100604-B61-S1	10/6/2004	REG								6				1	
SOIL		219757	STL-WSTFLD	B-61	C100604-B61-S2	10/6/2004	REG								6				1	
SOIL		219757	STL-WSTFLD	B-62	C100604-B62-S2	10/6/2004	REG								6				1	
SOIL		219757	STL-WSTFLD	B-62	C100604-B62-S3	10/6/2004	REG								6				1	
SOIL		219757	STL-WSTFLD	B-63	C100604-B63-S4	10/6/2004	REG								6				1	
SOIL		219757	STL-WSTFLD	B-65	C100604-B65-S3	10/6/2004	REG								6				1	
SOIL		219757	STL-WSTFLD	B-65	C100604-B65-S4	10/6/2004	REG								6				1	
SOIL		219757	STL-WSTFLD	B-66	C100704-B66-S2	10/7/2004	REG								6				1	

prepared by WCG
reviewed by CR
7/27/22

Table F-1a
Sample and Analysis Summary (Soil)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	SVOCs	PCBs	PEST	HERB	EPH	VPH	Metals	Hg	Hg	As	Cr6	Cr6
						Method:		8260	8270	8082	8081	8151	MADEP	MADEP	6010	7470	7471	7060	7196	NA
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
SOIL		219757	STL-WSTFLD	B-66	C100704-B66-S3	10/7/2004	REG								6				1	
SOIL		219757	STL-WSTFLD	B-67	C100704-B67-S1	10/7/2004	REG								6				1	
SOIL		219757	STL-WSTFLD	B-67	C100704-B67-S2	10/7/2004	REG								6				1	
SOIL		219757	STL-WSTFLD	B-68	C100704-B68-S3	10/7/2004	REG								6				1	
SOIL		219757	STL-WSTFLD	B-68	C100704-B68-S3-DUP	10/7/2004	FD								6				1	
SOIL		219757	STL-WSTFLD	B-68	C100704-B68-S4	10/7/2004	REG								6				1	
SOIL		219757	STL-WSTFLD	B-68	C100704-B68-S6	10/7/2004	REG								6				1	
SOIL		219757	STL-WSTFLD	B-69	C100704-B69-S3	10/7/2004	REG	71							6				1	
SOIL		219757	STL-WSTFLD	B-69	C100704-B69-S5	10/7/2004	REG	71							6				1	
SOIL		219757	STL-WSTFLD	B-69	C100704-B69-S6	10/7/2004	REG	71							6				1	
SOIL		219757	STL-WSTFLD	B-70	C100704-B70-S3	10/7/2004	REG	71							6				1	
SOIL		219757	STL-WSTFLD	B-70	C100704-B70-S4	10/7/2004	REG	71							6				1	
SOIL		219757	STL-WSTFLD	B-70	C100704-B70-S7	10/7/2004	REG	71							6				1	
SOIL		219757	STL-WSTFLD	B-51	C100804-B51-S3	10/8/2004	REG		17						6				1	
SOIL		219757	STL-WSTFLD	B-51	C100804-B51-S4	10/8/2004	REG		17						6				1	
SOIL		219757	STL-WSTFLD	B-51	C100804-B51-S5	10/8/2004	REG		17						6				1	
SOIL		219757	STL-WSTFLD	B-52	C100804-B52-S3	10/8/2004	REG		17						6				3	
SOIL		219757	STL-WSTFLD	B-52	C100804-B52-S4	10/8/2004	REG		17						6				1	
SOIL		219757	STL-WSTFLD	B-52	C100804-B52-S6	10/8/2004	REG		17						6				1	
SOIL		219757	STL-WSTFLD	B-53	C100804-B53-S2	10/8/2004	REG	71							6				1	
SOIL		219757	STL-WSTFLD	B-53	C100804-B53-S4	10/8/2004	REG	71							6				1	
SOIL		219757	STL-WSTFLD	B-53	C100804-B53-S5	10/8/2004	REG	71							6				1	
SOIL		219757	STL-WSTFLD	B-71	C100804-B71-S2	10/8/2004	REG	71							6				1	
SOIL		219757	STL-WSTFLD	B-71	C100804-B71-S4	10/8/2004	REG	71							6				1	
SOIL		219757	STL-WSTFLD	B-71	C100804-B71-S8	10/8/2004	REG	71							6				1	
SOIL		219783	STL-WSTFLD	B-74	C101104-B74-S2	10/11/2004	REG								6				3	
SOIL		219783	STL-WSTFLD	B-74	C101104-B74-S4	10/11/2004	REG								6				1	
SOIL		219783	STL-WSTFLD	B-74	C101104-B74-S6	10/11/2004	REG								6				1	
SOIL		219784	STL-WSTFLD	B-72	C101104-B72-S2A	10/11/2004	REG								6				1	
SOIL		219784	STL-WSTFLD	B-73	C101104-B73-S2A	10/11/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-75	C101104-B75-S3	10/11/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-75	C101104-B75-S4	10/11/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-75	C101104-B75-S5	10/11/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-76	C101204-B76-S3	10/12/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-76	C101204-B76-S5	10/12/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-76	C101204-B76-S7	10/12/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-77	C101204-B77-S3	10/12/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-77	C101204-B77-S5	10/12/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-77	C101204-B77-S6	10/12/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-78	C101204-B78-S3	10/12/2004	REG	71							6				1	
SOIL		219907	STL-WSTFLD	B-78	C101204-B78-S5	10/12/2004	REG								6				1	

prepared by WCG
reviewed by CR
7/27/22

Table F-1a
Sample and Analysis Summary (Soil)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	SVOCs	PCBs	PEST	HERB	EPH	VPH	Metals	Hg	Hg	As	Cr6	Cr6
						Method:		8260	8270	8082	8081	8151	MADEP	MADEP	6010	7470	7471	7060	7196	NA
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
SOIL		219907	STL-WSTFLD	B-78	C101204-B78-S6	10/12/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-80	C101304-B80-S3	10/13/2004	REG	71							6				1	
SOIL		219907	STL-WSTFLD	B-80	C101304-B80-S4	10/13/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-80	C101304-B80-S5	10/13/2004	REG	71							6				1	
SOIL		219907	STL-WSTFLD	B-81	C101304-B81-S5	10/13/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-82	C101304-B82-S3	10/13/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-82	C101304-B82-S4	10/13/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-82	C101304-B82-S6	10/13/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-83	C101304-B83-S3	10/13/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-83	C101304-B83-S5	10/13/2004	REG								6				1	
SOIL		219907	STL-WSTFLD	B-83	C101304-B83-S6	10/13/2004	REG								6				1	
SOIL		219974	STL-WSTFLD	B-84	C101404-B84-S2	10/14/2004	REG	71							6				3	
SOIL		219974	STL-WSTFLD	B-84	C101404-B84-S4	10/14/2004	REG	71							6				1	
SOIL		219974	STL-WSTFLD	B-84	C101404-B84-S6	10/14/2004	REG	71							6				1	
SOIL		219974	STL-WSTFLD	B-85	C101404-B85-S2	10/14/2004	REG								6				1	
SOIL		219974	STL-WSTFLD	B-85	C101404-B85-S3	10/14/2004	REG								6				1	
SOIL		219974	STL-WSTFLD	B-85	C101404-B85-S5	10/14/2004	REG								6				1	
SOIL		220501	STL-WSTFLD	B-88	C101504-B88-S1	10/15/2004	REG								12				6	
SOIL		220501	STL-WSTFLD	B-88	C101504-B88-S2	10/15/2004	REG								12				2	
SOIL		220501	STL-WSTFLD	B-88	C101504-B88-S3	10/15/2004	REG								12				2	
SOIL		220501	STL-WSTFLD	B-89	C101504-B89-S1	10/15/2004	REG								12				2	
SOIL		220501	STL-WSTFLD	B-89	C101504-B89-S2	10/15/2004	REG								12				2	
SOIL		220501	STL-WSTFLD	B-89	C101504-B89-S3	10/15/2004	REG								12				2	
SOIL		220501	STL-WSTFLD	B-89	C101504-B89-S5	10/15/2004	REG								12				2	
SOIL		220501	STL-WSTFLD	B-90	C101504-B90-S1	10/15/2004	REG								12				2	
SOIL		220501	STL-WSTFLD	B-90	C101504-B90-S2	10/15/2004	REG								12				2	
SOIL		225819	STL-WSTFLD	B-100	C052405-B100S2	5/24/2005	REG								6				1	
SOIL		225819	STL-WSTFLD	B-102	C052405-B102S2A	5/24/2005	REG								6				1	
SOIL		225819	STL-WSTFLD	B-91	C052405-B91S2	5/24/2005	REG								6				1	
SOIL		225819	STL-WSTFLD	B-91	C052405-B91S2A	5/24/2005	REG								6				1	
SOIL		225819	STL-WSTFLD	B-92	C052405-B92S2	5/24/2005	REG								6				1	
SOIL		225819	STL-WSTFLD	B-93	C052405-B93S2A	5/24/2005	REG								6				1	
SOIL		225819	STL-WSTFLD	B-93A	C052405-B93AS2	5/24/2005	REG								6				1	
SOIL		225819	STL-WSTFLD	B-94	C052405-B94S2	5/24/2005	REG								6				1	
SOIL		225819	STL-WSTFLD	B-95	C052405-B95S2	5/24/2005	REG								6				1	
SOIL		225819	STL-WSTFLD	B-96	C052405-B96S2	5/24/2005	REG								6				1	
SOIL		225819	STL-WSTFLD	B-97	C052405-B97S2	5/24/2005	REG								6				1	
SOIL		225847	STL-WSTFLD	B-97	C052405-B97S2 DUP	5/24/2005	FD								6				1	
SOIL		230739	STL-PA	B-212	B212s1	11/10/2005	REG								22		1		1	
SOIL		230739	STL-PA	B-213	B213s1	11/10/2005	REG								22		1		1	
SOIL		230739	STL-PA	B-214	B214s1	11/10/2005	REG								22		1		1	

prepared by WCG
reviewed by CR
7/27/22

Table F-1a
Sample and Analysis Summary (Soil)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	SVOCs	PCBs	PEST	HERB	EPH	VPH	Metals	Hg	Hg	As	Cr6	Cr6
						Method:		8260	8270	8082	8081	8151	MADEP	MADEP	6010	7470	7471	7060	7196	NA
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
SOIL		230739	STL-WSTFLD	B-212	B212s1	11/10/2005	REG						22							
SOIL		230739	STL-WSTFLD	B-213	B213s1	11/10/2005	REG						22							
SOIL		230739	STL-WSTFLD	B-214	B214s1	11/10/2005	REG						22							
SOIL		230740	STL-PA	B-212	B212s2	11/10/2005	REG								22		1		1	
SOIL		230740	STL-PA	B-213	B213s2	11/10/2005	REG								22		1		1	
SOIL		230740	STL-PA	B-214	B214s2	11/10/2005	REG								22		1		1	
SOIL		230740	STL-WSTFLD	B-212	B212s2	11/10/2005	REG						22							
SOIL		230740	STL-WSTFLD	B-213	B213s2	11/10/2005	REG						22							
SOIL		230740	STL-WSTFLD	B-214	B214s2	11/10/2005	REG						22							
SOIL		230741	STL-PA	B-212	B212s3	11/10/2005	REG								22		1		1	
SOIL		230741	STL-PA	B-213	B213s3	11/10/2005	REG								22		1		1	
SOIL		230741	STL-PA	B-214	B214s3	11/10/2005	REG								22		1		1	
SOIL		230741	STL-WSTFLD	B-212	B212s3	11/10/2005	REG						22							
SOIL		230741	STL-WSTFLD	B-213	B213s3	11/10/2005	REG						22							
SOIL		230741	STL-WSTFLD	B-214	B214s3	11/10/2005	REG						22							
SOIL		230742	STL-PA	B-212	B212s4	11/10/2005	REG								22		1		1	
SOIL		230742	STL-PA	B-213	B213s4	11/10/2005	REG								22		1		1	
SOIL		230742	STL-PA	B-214	B214s4	11/10/2005	REG								22		1		1	
SOIL		230742	STL-WSTFLD	B-212	B212s4	11/10/2005	REG						22							
SOIL		230742	STL-WSTFLD	B-213	B213s4	11/10/2005	REG						22							
SOIL		230742	STL-WSTFLD	B-214	B214s4	11/10/2005	REG						22							
SOIL		230744	STL-PA	B-201	B201 s4	11/10/2005	REG								22		1		1	
SOIL		230744	STL-PA	B-202	B202 s4	11/10/2005	REG								22		1		1	
SOIL		230744	STL-PA	B-205	B205 s4	11/10/2005	REG								22		1		1	
SOIL		230744	STL-PA	B-208	B208 s4	11/10/2005	REG								22		1		1	
SOIL		230744	STL-PA	B-209	B209 s4	11/10/2005	REG								22		1		1	
SOIL		230744	STL-PA	B-210	B210 s4	11/10/2005	REG								22		1		1	
SOIL		230744	STL-PA	B-211	B211 s4	11/10/2005	REG								22		1		1	
SOIL		230744	STL-WSTFLD	B-201	B201 s4	11/10/2005	REG						22							
SOIL		230744	STL-WSTFLD	B-202	B202 s4	11/10/2005	REG						22							
SOIL		230744	STL-WSTFLD	B-205	B205 s4	11/10/2005	REG						22							
SOIL		230744	STL-WSTFLD	B-208	B208 s4	11/10/2005	REG						22							
SOIL		230744	STL-WSTFLD	B-209	B209 s4	11/10/2005	REG						22							
SOIL		230744	STL-WSTFLD	B-210	B210 s4	11/10/2005	REG						22							
SOIL		230744	STL-WSTFLD	B-211	B211 s4	11/10/2005	REG						22							
SOIL		230745	STL-PA	B-200	B200 s3	11/10/2005	REG								22		1		1	
SOIL		230745	STL-PA	B-201	B201 s3	11/10/2005	REG								22		1		1	
SOIL		230745	STL-PA	B-202	B202 s3	11/10/2005	REG								22		1		1	
SOIL		230745	STL-PA	B-203	B203 s3	11/10/2005	REG								22		1		1	
SOIL		230745	STL-PA	B-204	B204 s3	11/10/2005	REG								22		1		1	
SOIL		230745	STL-PA	B-205	B205 s3	11/10/2005	REG								22		1		1	

prepared by WCG
reviewed by CR
7/27/22

Table F-1a
Sample and Analysis Summary (Soil)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	SVOCs	PCBs	PEST	HERB	EPH	VPH	Metals	Hg	Hg	As	Cr6	Cr6
						Method:		8260	8270	8082	8081	8151	MADEP	MADEP	6010	7470	7471	7060	7196	NA
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
SOIL		230745	STL-PA	B-206	B206 s3	11/10/2005	REG								22		1		1	
SOIL		230745	STL-PA	B-207	B207 s3	11/10/2005	REG								22		1		1	
SOIL		230745	STL-PA	B-208	B208 s3	11/10/2005	REG								22		1		1	
SOIL		230745	STL-PA	B-209	B209 s3	11/10/2005	REG								22		1		1	
SOIL		230745	STL-PA	B-210	B210 s3	11/10/2005	REG								22		1		1	
SOIL		230745	STL-PA	B-211	B211 s3	11/10/2005	REG								22		1		1	
SOIL		230745	STL-WSTFLD	B-200	B200 s3	11/10/2005	REG						22							
SOIL		230745	STL-WSTFLD	B-201	B201 s3	11/10/2005	REG						22							
SOIL		230745	STL-WSTFLD	B-202	B202 s3	11/10/2005	REG						22							
SOIL		230745	STL-WSTFLD	B-203	B203 s3	11/10/2005	REG						22							
SOIL		230745	STL-WSTFLD	B-204	B204 s3	11/10/2005	REG						22							
SOIL		230745	STL-WSTFLD	B-205	B205 s3	11/10/2005	REG						22							
SOIL		230745	STL-WSTFLD	B-206	B206 s3	11/10/2005	REG						22							
SOIL		230745	STL-WSTFLD	B-207	B207 s3	11/10/2005	REG						22							
SOIL		230745	STL-WSTFLD	B-208	B208 s3	11/10/2005	REG						22							
SOIL		230745	STL-WSTFLD	B-209	B209 s3	11/10/2005	REG						22							
SOIL		230745	STL-WSTFLD	B-210	B210 s3	11/10/2005	REG						22							
SOIL		230745	STL-WSTFLD	B-211	B211 s3	11/10/2005	REG						22							
SOIL		230746	STL-PA	B-200	B200 s2	11/10/2005	REG								22		1		1	
SOIL		230746	STL-PA	B-201	B201 s2	11/10/2005	REG								22		1		1	
SOIL		230746	STL-PA	B-202	B202 s2	11/10/2005	REG								22		1		1	
SOIL		230746	STL-PA	B-203	B203 s2	11/10/2005	REG								22		1		1	
SOIL		230746	STL-PA	B-204	B204 s2	11/10/2005	REG								22		1		1	
SOIL		230746	STL-PA	B-205	B205 s2	11/10/2005	REG								22		1		1	
SOIL		230746	STL-PA	B-206	B206 s2	11/10/2005	REG								22		1		1	
SOIL		230746	STL-PA	B-207	B207 s2	11/10/2005	REG								22		1		1	
SOIL		230746	STL-PA	B-208	B208 s2	11/10/2005	REG								22		1		1	
SOIL		230746	STL-PA	B-209	B209 s2	11/10/2005	REG								22		1		1	
SOIL		230746	STL-PA	B-210	B210 s2	11/10/2005	REG								22		1		1	
SOIL		230746	STL-PA	B-211	B211 s2	11/10/2005	REG								22		1		1	
SOIL		230746	STL-WSTFLD	B-200	B200 s2	11/10/2005	REG						22							
SOIL		230746	STL-WSTFLD	B-200	B200 s2 RE	11/10/2005	REG						22							
SOIL		230746	STL-WSTFLD	B-201	B201 s2	11/10/2005	REG						22							
SOIL		230746	STL-WSTFLD	B-202	B202 s2	11/10/2005	REG						22							
SOIL		230746	STL-WSTFLD	B-203	B203 s2	11/10/2005	REG						22							
SOIL		230746	STL-WSTFLD	B-204	B204 s2	11/10/2005	REG						22							
SOIL		230746	STL-WSTFLD	B-205	B205 s2	11/10/2005	REG						22							
SOIL		230746	STL-WSTFLD	B-206	B206 s2	11/10/2005	REG						22							
SOIL		230746	STL-WSTFLD	B-207	B207 s2	11/10/2005	REG						22							
SOIL		230746	STL-WSTFLD	B-208	B208 s2	11/10/2005	REG						22							
SOIL		230746	STL-WSTFLD	B-209	B209 s2	11/10/2005	REG						22							

prepared by WCG
reviewed by CR
7/27/22

Table F-1a
Sample and Analysis Summary (Soil)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	SVOCs	PCBs	PEST	HERB	EPH	VPH	Metals	Hg	Hg	As	Cr6	Cr6
						Method:		8260	8270	8082	8081	8151	MADEP	MADEP	6010	7470	7471	7060	7196	NA
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
SOIL		230746	STL-WSTFLD	B-210	B210 s2	11/10/2005	REG						22							
SOIL		230746	STL-WSTFLD	B-211	B211 s2	11/10/2005	REG						22							
SOIL		230747	STL-PA	B-200	B200 s1	11/10/2005	REG								22		1		1	
SOIL		230747	STL-PA	B-201	B201 s1	11/10/2005	REG								22		1		1	
SOIL		230747	STL-PA	B-202	B202 s1	11/10/2005	REG								22		1		1	
SOIL		230747	STL-PA	B-203	B203 s1	11/10/2005	REG								22		1		1	
SOIL		230747	STL-PA	B-204	B204 s1	11/10/2005	REG								22		1		1	
SOIL		230747	STL-PA	B-205	B205 s1	11/10/2005	REG								22		1		1	
SOIL		230747	STL-PA	B-206	B206 s1	11/10/2005	REG								22		1		1	
SOIL		230747	STL-PA	B-207	B207 s1	11/10/2005	REG								22		1		1	
SOIL		230747	STL-PA	B-208	B208 s1	11/10/2005	REG								22		1		1	
SOIL		230747	STL-PA	B-209	B209 s1	11/10/2005	REG								22		1		1	
SOIL		230747	STL-PA	B-210	B210 s1	11/10/2005	REG								22		1		1	
SOIL		230747	STL-PA	B-211	B211 s1	11/10/2005	REG								22		1		1	
SOIL		230747	STL-WSTFLD	B-200	B200 s1	11/10/2005	REG						22							
SOIL		230747	STL-WSTFLD	B-201	B201 s1	11/10/2005	REG						22							
SOIL		230747	STL-WSTFLD	B-202	B202 s1	11/10/2005	REG						22							
SOIL		230747	STL-WSTFLD	B-203	B203 s1	11/10/2005	REG						22							
SOIL		230747	STL-WSTFLD	B-204	B204 s1	11/10/2005	REG						22							
SOIL		230747	STL-WSTFLD	B-205	B205 s1	11/10/2005	REG						22							
SOIL		230747	STL-WSTFLD	B-206	B206 s1	11/10/2005	REG						22							
SOIL		230747	STL-WSTFLD	B-207	B207 s1	11/10/2005	REG						22							
SOIL		230747	STL-WSTFLD	B-208	B208 s1	11/10/2005	REG						22							
SOIL		230747	STL-WSTFLD	B-208	B208 s1 RE	11/10/2005	REG						22							
SOIL		230747	STL-WSTFLD	B-209	B209 s1	11/10/2005	REG						22							
SOIL		230747	STL-WSTFLD	B-210	B210 s1	11/10/2005	REG						22							
SOIL		230747	STL-WSTFLD	B-211	B211 s1	11/10/2005	REG						22							
SOIL		230739	STL-PA	B-215	B215s1	11/11/2005	REG								22		1		1	
SOIL		230739	STL-PA	B-216	B216s1	11/11/2005	REG								22		1		1	
SOIL		230739	STL-PA	B-217	B217s1	11/11/2005	REG								22		1		1	
SOIL		230739	STL-PA	B-218	B218s1	11/11/2005	REG								22		1		1	
SOIL		230739	STL-PA	B-219	B219s1	11/11/2005	REG								22		1		1	
SOIL		230739	STL-PA	B-220	B220s1	11/11/2005	REG								22		1		1	
SOIL		230739	STL-WSTFLD	B-215	B215s1	11/11/2005	REG						22							
SOIL		230739	STL-WSTFLD	B-216	B216s1	11/11/2005	REG						22							
SOIL		230739	STL-WSTFLD	B-217	B217s1	11/11/2005	REG						22							
SOIL		230739	STL-WSTFLD	B-218	B218s1	11/11/2005	REG						22							
SOIL		230739	STL-WSTFLD	B-219	B219s1	11/11/2005	REG						22							
SOIL		230739	STL-WSTFLD	B-220	B220s1	11/11/2005	REG						22							
SOIL		230740	STL-PA	B-215	B215s2	11/11/2005	REG								22		1		1	
SOIL		230740	STL-PA	B-216	B216s2	11/11/2005	REG								22		1		1	

prepared by WCG
reviewed by CR
7/27/22

Table F-1a
Sample and Analysis Summary (Soil)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	SVOCs	PCBs	PEST	HERB	EPH	VPH	Metals	Hg	Hg	As	Cr6	Cr6
						Method:		8260	8270	8082	8081	8151	MADEP	MADEP	6010	7470	7471	7060	7196	NA
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
SOIL		230740	STL-PA	B-217	B217s2	11/11/2005	REG								22		1		1	
SOIL		230740	STL-PA	B-218	B218s2	11/11/2005	REG								22		1		1	
SOIL		230740	STL-PA	B-219	B219s2	11/11/2005	REG								22		1		1	
SOIL		230740	STL-PA	B-220	B220s2	11/11/2005	REG								22		1		1	
SOIL		230740	STL-WSTFLD	B-215	B215s2	11/11/2005	REG						22							
SOIL		230740	STL-WSTFLD	B-216	B216s2	11/11/2005	REG						22							
SOIL		230740	STL-WSTFLD	B-217	B217s2	11/11/2005	REG						22							
SOIL		230740	STL-WSTFLD	B-218	B218s2	11/11/2005	REG						22							
SOIL		230740	STL-WSTFLD	B-219	B219s2	11/11/2005	REG						22							
SOIL		230740	STL-WSTFLD	B-220	B220s2	11/11/2005	REG						22							
SOIL		230741	STL-PA	B-215	B215s3	11/11/2005	REG								22		1		1	
SOIL		230741	STL-PA	B-216	B216s3	11/11/2005	REG								22		1		1	
SOIL		230741	STL-PA	B-217	B217s3	11/11/2005	REG								22		1		1	
SOIL		230741	STL-PA	B-218	B218s3	11/11/2005	REG								22		1		1	
SOIL		230741	STL-PA	B-219	B219s3	11/11/2005	REG								22		1		1	
SOIL		230741	STL-PA	B-220	B220s3	11/11/2005	REG								22		1		1	
SOIL		230741	STL-WSTFLD	B-215	B215s3	11/11/2005	REG						22							
SOIL		230741	STL-WSTFLD	B-216	B216s3	11/11/2005	REG						22							
SOIL		230741	STL-WSTFLD	B-217	B217s3	11/11/2005	REG						22							
SOIL		230741	STL-WSTFLD	B-218	B218s3	11/11/2005	REG						22							
SOIL		230741	STL-WSTFLD	B-219	B219s3	11/11/2005	REG						22							
SOIL		230741	STL-WSTFLD	B-220	B220s3	11/11/2005	REG						22							
SOIL		230742	STL-PA	B-216	B216s4	11/11/2005	REG								22		1		1	
SOIL		230742	STL-PA	B-217	B217s4	11/11/2005	REG								22		1		1	
SOIL		230742	STL-PA	B-218	B218s4	11/11/2005	REG								22		1		1	
SOIL		230742	STL-PA	B-220	B220s4	11/11/2005	REG								22		1		1	
SOIL		230742	STL-WSTFLD	B-216	B216s4	11/11/2005	REG						22							
SOIL		230742	STL-WSTFLD	B-217	B217s4	11/11/2005	REG						22							
SOIL		230742	STL-WSTFLD	B-218	B218s4	11/11/2005	REG						22							
SOIL		230742	STL-WSTFLD	B-220	B220s4	11/11/2005	REG						22							
SOIL		360-8199-1	STL-WSTFLD	B-225	C012407-B225	1/24/2007	REG	10	12	9	7	2			7	1				
SOIL		360-8199-1	STL-WSTFLD	B-226	C012407-B226	1/24/2007	REG	10	12	9	7	2			7	1				
SOIL		360-8199-1	STL-WSTFLD	B-227	C012407-B227	1/24/2007	REG	10	12	9	7	2			7	1				
SOIL		360-8199-1	STL-WSTFLD	B-228	C012407-B228	1/24/2007	REG	10	12	9	7	2			7	1				
SOIL		360-8199-1	STL-WSTFLD	B-229	C012407-B229	1/24/2007	REG	10	12	9	7	2			7	1				
SOIL		360-8199-1	STL-WSTFLD	B-230	C012407-B230	1/24/2007	REG	10	12	9	7	2			7	1				
SOIL		360-8199-1	STL-WSTFLD	B-231	C012407-B231	1/24/2007	REG	10	12	9	7	2			7	1				
SOIL	X	360-8576-1	STL-WSTFLD	Area-D	C022007-DB1	2/20/2007	REG	73					21		22		1		1	
SOIL	X	360-8576-1	STL-WSTFLD	Area-D	C022007-DB1 DUP	2/20/2007	FD	72					22		22		1		1	
SOIL	X	360-8576-1	STL-WSTFLD	Area-D	C022007-DS1	2/20/2007	REG	73					21		22		1		1	
SOIL	X	360-8576-1	STL-WSTFLD	Area-D	C022007-DS2	2/20/2007	REG	73					21		22		1		1	

prepared by WCG
reviewed by CR
7/27/22

Table F-1a
Sample and Analysis Summary (Soil)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	SVOCs	PCBs	PEST	HERB	EPH	VPH	Metals	Hg	Hg	As	Cr6	Cr6
						Method:		8260	8270	8082	8081	8151	MADEP	MADEP	6010	7470	7471	7060	7196	NA
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
SOIL	X	360-8576-1	STL-WSTFLD	Area-D	C022007-DS3	2/20/2007	REG	74					21		22		1		1	
SOIL	X	360-8576-1	STL-WSTFLD	Area-D	C022007-DS4	2/20/2007	REG	72					22		22		1		1	
SOIL	X	360-8576-1	STL-WSTFLD	PAH-Area	C022007-PAHB1	2/20/2007	REG	72					22		22		1		1	
SOIL	X	360-8576-1	STL-WSTFLD	PAH-Area	C022007-PAHS1	2/20/2007	REG	72					22		22		1		1	
SOIL	X	360-8576-1	STL-WSTFLD	PAH-Area	C022007-PAHS2	2/20/2007	REG	73					21		22		1		1	
SOIL	X	360-8576-1	STL-WSTFLD	PAH-Area	C022007-PAHS3	2/20/2007	REG	72					22		22		1		1	
SOIL	X	360-8576-1	STL-WSTFLD	PAH-Area	C022007-PAHS4	2/20/2007	REG	73					21		22		1		1	
SOIL	X	360-8576-1	STL-WSTFLD	Area-G	C022107-GB1	2/21/2007	REG	72					22		22		1		1	
SOIL	X	360-8576-1	STL-WSTFLD	Area-G	C022107-GS1	2/21/2007	REG	73					21		22		1		1	
SOIL	X	360-8576-1	STL-WSTFLD	Area-G	C022107-GS2	2/21/2007	REG	74					21		22		1		1	
SOIL	X	360-8576-1	STL-WSTFLD	Area-G	C022107-GS3	2/21/2007	REG	73					21		22		1		1	
SOIL	X	360-8576-1	STL-WSTFLD	Area-G	C022107-GS4	2/21/2007	REG	73					21		22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-E	C022207-EB1	2/22/2007	REG	72					21		22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-E	C022207-ES1	2/22/2007	REG	71					22		22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-E	C022207-ES2	2/22/2007	REG	72					21		22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-E	C022207-ES3	2/22/2007	REG	74					21		22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-E	C022207-ES4	2/22/2007	REG	72					21		22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-F	C022207-FB1	2/22/2007	REG	71					22		22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-F	C022207-FB1DUP	2/22/2007	FD	72					21		22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-F	C022207-FS1	2/22/2007	REG	72					21		22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-F	C022207-FS2	2/22/2007	REG	72					21		22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-F	C022207-FS3	2/22/2007	REG	72					21		22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-F	C022207-FS4	2/22/2007	REG	72					21		22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-PRA-1	C022307-PRA1B1	2/23/2007	REG	78					21	6	22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-PRA-1	C022307-PRA1B2	2/23/2007	REG	77					21	7	22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-PRA-1	C022307-PRA1B2DUP	2/23/2007	FD	76					21	8	22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-PRA-1	C022307-PRA1B3	2/23/2007	REG	77					23	5	22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-PRA-1	C022307-PRA1S1	2/23/2007	REG	78					21	6	22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-PRA-1	C022307-PRA1S2	2/23/2007	REG	79					21	5	22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-PRA-1	C022307-PRA1S3	2/23/2007	REG	78					21	6	22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-PRA-1	C022307-PRA1S4	2/23/2007	REG	74					21	10	22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-PRA-1	C022307-PRA1S5	2/23/2007	REG	79					21	5	22		1		1	
SOIL	X	360-8618-1	STL-WSTFLD	Area-PRA-1	C022307-PRA1S6	2/23/2007	REG	78					21	6	22		1		1	
SOIL	X	360-8665-1	STL-WSTFLD	Area-B	C022607-BB1	2/26/2007	REG	72					21		22		1		1	
SOIL	X	360-8665-1	STL-WSTFLD	Area-B	C022607-BB2	2/26/2007	REG	73					21		22		1		1	
SOIL	X	360-8665-1	STL-WSTFLD	Area-B	C022607-BB2DP	2/26/2007	FD	72					21		22		1		1	
SOIL	X	360-8665-1	STL-WSTFLD	Area-B	C022607-BS1	2/26/2007	REG	71					22		22		1		1	
SOIL	X	360-8665-1	STL-WSTFLD	Area-B	C022607-BS2	2/26/2007	REG	72					21		22		1		1	
SOIL	X	360-8665-1	STL-WSTFLD	Area-A	C022707-AB1	2/27/2007	REG	77					21		22		1		1	
SOIL	X	360-8665-1	STL-WSTFLD	Area-A	C022707-AB2	2/27/2007	REG	72					21		22		1		1	
SOIL	X	360-8665-1	STL-WSTFLD	Area-A	C022707-AS1	2/27/2007	REG	72					21		22		1		1	

prepared by WCG
reviewed by CR
7/27/22

Table F-1a
Sample and Analysis Summary (Soil)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	SVOCs	PCBs	PEST	HERB	EPH	VPH	Metals	Hg	Hg	As	Cr6	Cr6
						Method:		8260	8270	8082	8081	8151	MADEP	MADEP	6010	7470	7471	7060	7196	NA
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count
SOIL	X	360-8665-1	STL-WSTFLD	Area-A	C022707-AS2	2/27/2007	REG	71					22		22		1		1	
SOIL	X	360-8665-1	STL-WSTFLD	Area-A	C022707-AS3	2/27/2007	REG	71					22		22		1		1	
SOIL	X	360-8665-1	STL-WSTFLD	Area-B	C022707-BB3	2/27/2007	REG	72					21		22		1		1	
SOIL	X	360-8665-1	STL-WSTFLD	Area-C	C022707-CB1	2/27/2007	REG	72					21		22		1		1	
SOIL	X	360-8665-1	STL-WSTFLD	Area-C	C022707-CB1-Dp	2/27/2007	FD	71					22		22		1		1	
SOIL	X	360-8665-1	STL-WSTFLD	Area-C	C022707-CB2	2/27/2007	REG	72					21		22		1		1	
SOIL	X	360-8665-1	STL-WSTFLD	Area-C	C022707-CS1	2/27/2007	REG	73					21		22		1		1	
SOIL	X	360-8665-1	STL-WSTFLD	Area-C	C022707-CS2	2/27/2007	REG	72					21		22		1		1	
SOIL	X	360-8665-1	STL-WSTFLD	Area-C	C022707-CS3	2/27/2007	REG	72					22		22		1		1	
SOIL	X	360-9576-1	STL-WSTFLD	B-232	C042407-B232 S1	4/24/2007	REG	77												
SOIL	X	360-9576-1	STL-WSTFLD	B-232	C042407-B232 S2	4/24/2007	REG	73												
SOIL	X	360-9576-1	STL-WSTFLD	B-232	C042407-B232 S3	4/24/2007	REG	71												
SOIL	X	360-9576-1	STL-WSTFLD	B-232	C042407-B232 S4	4/24/2007	REG	73												
SOIL	X	360-9576-1	STL-WSTFLD	B-233	C042407-B233 S1	4/24/2007	REG	71												
SOIL	X	360-9576-1	STL-WSTFLD	B-233	C042407-B233 S2	4/24/2007	REG	71												
SOIL	X	360-9576-1	STL-WSTFLD	B-233	C042407-B233 S3	4/24/2007	REG	71												
SOIL	X	360-9576-1	STL-WSTFLD	B-233	C042407-B233 S4	4/24/2007	REG	71												
SOIL	X	360-9576-1	STL-WSTFLD	B-234	C042407-B234	4/24/2007	REG								22		1		1	
SOIL	X	360-9576-1	STL-WSTFLD	B-235	C042407-B235	4/24/2007	REG								22		1		1	
SOIL	X	360-9576-1	STL-WSTFLD	B-236	C042407-B236	4/24/2007	REG								22		1		1	
SOIL	X	360-9576-1	STL-WSTFLD	B-237	C042407-B237	4/24/2007	REG								22		1		1	
SOIL	X	360-9576-1	STL-WSTFLD	B-238	C042407-B238	4/24/2007	REG								22		1		1	
SOIL	X	480-123630-1	TAL-BUFF	XRF-01	CXRF01_5-8_083117	8/31/2017	REG								1				1	
SOIL	X	480-123630-1	TAL-BUFF	XRF-05	CXRF05_8-10_083117	8/31/2017	REG								1				1	
SOIL	X	480-123630-1	TAL-BUFF	XRF-06	CXRF06_5-8_083117	8/31/2017	REG								1				1	
SOIL	X	480-123630-1	TAL-BUFF	XRF-06	CXRF06_5-8_083117DUP	8/31/2017	FD								1				1	
SOIL	X	480-123630-1	TAL-BUFF	XRF-09	CXRF09_5-8_083117	8/31/2017	REG								1				1	
SOIL	X	480-123630-1	TAL-BUFF	XRF-11	CXRF11_5-8_083117	8/31/2017	REG								1				1	
SOIL	X	480-123630-1	TAL-BUFF	XRF-13	CXRF13_5-8_083117	8/31/2017	REG								1				1	
SOIL	X	480-123630-1	TAL-BUFF	XRF-16	CXRF16_5-8_083117	8/31/2017	REG								1				1	
SOIL	X	480-123630-1	TAL-BUFF	XRF-18	CXRF18_5-8_083117	8/31/2017	REG								1				1	
SOIL	X	480-123630-1	TAL-BUFF	XRF-22	CXRF22_8-10_090117	9/1/2017	REG								1				1	
SOIL	X	480-123630-1	TAL-BUFF	XRF-23	CXRF23_10-11_090117	9/1/2017	REG								1				1	
SOIL	X	480-123630-1	TAL-BUFF	XRF-26	CXRF26_10-14_090117	9/1/2017	REG								1				1	
SOIL	X	480-123630-1	TAL-BUFF	XRF-27	CXRF27_5-8_090117	9/1/2017	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-30	CXRF-30_0-5_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-30	CXRF-30_5-8_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-31	CXRF-31_0-5_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-31	CXRF-31_5-8_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-32	CXRF-32_0-5_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-32	CXRF-32_5-8_051018	5/10/2018	REG								1				1	

prepared by WCG
reviewed by CR
7/27/22

Table F-1a
Sample and Analysis Summary (Soil)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	SVOCs	PCBs	PEST	HERB	EPH	VPH	Metals	Hg	Hg	As	Cr6	Cr6
						Method:		8260	8270	8082	8081	8151	MADEP	MADEP	6010	7470	7471	7060	7196	NA
Media	**DV RPT**	**SDG**	**Lab**	**Location**	**Field Sample ID**	**Date**	**Type**	**Count**	**Count**	**Count**	**Count**	**Count**	**Count**	**Count**	**Count**	**Count**	**Count**	**Count**	**Count**	**Count**
SOIL	X	480-135714-1	TAL-BUFF	XRF-33	CXRF-33_0-5_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-33	CXRF-33_5-8_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-34	CXRF-34_0-5_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-34	CXRF-34_5-8_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-35	CXRF-35_0-5_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-35	CXRF-35_8-10_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-36	CXRF-36_0-5_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-36	CXRF-36_10-13_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-37	CXRF-37_0-5_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-37	CXRF-37_7-10_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-38	CXRF-38_0-5_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-38	CXRF-38_7-10_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-39	CXRF-39_0-5_051018	5/10/2018	REG								1				1	
SOIL	X	480-135714-1	TAL-BUFF	XRF-39	CXRF-39_7-10_051018	5/10/2018	REG								1				1	

Notes:

DV RPT = data validation report
EPH = extractable petroleum hydrocarbons
FD = field duplicate
Herb = herbicides
PCBs = polychlorinated biphenyls
REG = field sample
VOCs = volatile organic compounds
As = arsenic
Cr6 = hexavalent chromium
Hg = mercury
NA = not available
PEST = pesticides
SVOCs = semivolatile organic compounds
VPH = volatile petroleum hydrocarbons

Table F-1b
Sample and Analysis Summary (Groundwater)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	Metals	Cr6
							Method	8260	6010	7196
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	count	count	count
GW	X	480-124040-1	TAL-BUFF	CLW-19	C091217-CLW19	9/12/2017	REG	71	1	1
GW	X	480-124040-1	TAL-BUFF	CLW-19B	C091217-CLW19B	9/12/2017	REG	71	1	1
GW	X	480-124040-1	TAL-BUFF	CLW-20	C091217-CLW20	9/12/2017	REG	71	1	1
GW	X	480-124040-1	TAL-BUFF	CLW-20B	C091217-CLW20B	9/12/2017	REG	71	1	1
GW	X	480-124040-1	TAL-BUFF	CLW-22	C091217-CLW22	9/12/2017	REG	71	1	1
GW	X	480-124040-1	TAL-BUFF	CLW-8	C091217-CLW8A	9/12/2017	REG	71	1	1
GW	X	480-124040-1	TAL-BUFF	DMW-A	C091217-DMWA	9/12/2017	REG	71	1	1
GW	X	480-124040-1	TAL-BUFF	DMW-B	C091217-DMWB	9/12/2017	REG	71	1	1
GW	X	480-124040-1	TAL-BUFF	OSW-4I	C091217-OSW4I	9/12/2017	REG	71	1	1
GW	X	480-124040-1	TAL-BUFF	OSW-7A	C091217-OSW7	9/12/2017	REG	71	1	1
GW	X	480-124040-1	TAL-BUFF	OSW-7A	C091217-OSW7DUP	9/12/2017	FD	71	1	1
GW	X	480-124118-1	TAL-BUFF	CLW-17	C091317-CLW17	9/13/2017	REG	71	1	1
GW	X	480-124118-1	TAL-BUFF	CLW-17B	C091317-CLW17B	9/13/2017	REG	71	1	1
GW	X	480-124118-1	TAL-BUFF	CLW-22B	C091317-CLW22B	9/13/2017	REG	71	1	1
GW	X	480-124118-1	TAL-BUFF	OSW-2B	C091317-OSW2B	9/13/2017	REG	71	1	1
GW	X	480-124118-1	TAL-BUFF	OSW-3A	C091317-OSW3A	9/13/2017	REG	71	1	1
GW	X	480-124118-1	TAL-BUFF	PP-2	C091317-PP2	9/13/2017	REG	71	1	1
GW	X	480-124118-1	TAL-BUFF	PP-3	C091317-PP3	9/13/2017	REG	71	1	1
GW	X	480-124202-1	TAL-BUFF	CLW-16B	C091417-CLW16B	9/14/2017	REG	71	1	1
GW	X	480-124202-1	TAL-BUFF	CLW-5A	C091417-CLW5A	9/14/2017	REG	71	1	1
GW	X	480-124202-1	TAL-BUFF	CLW-5B	C091417-CLW5B	9/14/2017	REG	71	1	1
GW	X	480-124202-1	TAL-BUFF	OSW-1A	C091417-OSW1A	9/14/2017	REG	71	1	1
GW	X	480-124202-1	TAL-BUFF	OSW-1B	C091417-OSW1B	9/14/2017	REG	71	1	1
GW	X	480-124202-1	TAL-BUFF	OSW-3B	C091417-OSW3B	9/14/2017	REG	71	1	1
GW	X	480-124283-1	TAL-BUFF	CIW-1B	C0901517-CIW1B	9/15/2017	REG	71	1	1
GW	X	480-124283-1	TAL-BUFF	PP-4A	C0901517-PP4A	9/15/2017	REG	71	1	1
GW	X	480-124283-1	TAL-BUFF	PP-4B	C0901517-PP4B	9/15/2017	REG	71	1	1
GW	X	480-133840-1	TAL-BUFF	CLW-8	C040918-CLW8	4/9/2018	REG	71	1	1

prepared by WCG
reviewed by CR
7/27/22

Table F-1b
Sample and Analysis Summary (Groundwater)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	Metals	Cr6
							Method	8260	6010	7196
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	count	count	count
GW	X	480-133840-1	TAL-BUFF	DMW-A	C040918-DMWA	4/9/2018	REG	71	1	1
GW	X	480-133840-1	TAL-BUFF	DMW-B	C040918-DMWB	4/9/2018	REG	71	1	1
GW	X	480-133840-1	TAL-BUFF	OSW-7A	C040918-OSW7A	4/9/2018	REG	71	1	1
GW	X	480-133885-1	TAL-BUFF	CLW-19	C041018-CLW19	4/10/2018	REG	71	1	1
GW	X	480-133885-1	TAL-BUFF	CLW-19B	C041018-CLW19B	4/10/2018	REG	71	1	1
GW	X	480-133885-1	TAL-BUFF	CLW-19B	C041018-CLW19B DUP	4/10/2018	FD	71	1	1
GW	X	480-133885-1	TAL-BUFF	CLW-20	C041018-CLW20	4/10/2018	REG	71	1	1
GW	X	480-133885-1	TAL-BUFF	CLW-20B	C041018-CLW20B	4/10/2018	REG	71	1	1
GW	X	480-133885-1	TAL-BUFF	CLW-5A	C041018-CLW5A	4/10/2018	REG	71	1	1
GW	X	480-133885-1	TAL-BUFF	CLW-5B	C041018-CLW5B	4/10/2018	REG	71	1	1
GW	X	480-133885-1	TAL-BUFF	OSW-1A	C041018-OSW1A	4/10/2018	REG	71	1	1
GW	X	480-133885-1	TAL-BUFF	OSW-1B	C041018-OSW1B	4/10/2018	REG	71	1	1
GW	X	480-133969-1	TAL-BUFF	CIW-1B	C041118-CIW1B	4/11/2018	REG	71	1	1
GW	X	480-133969-1	TAL-BUFF	CLW-17	C041118-CLW17	4/11/2018	REG	71	1	1
GW	X	480-133969-1	TAL-BUFF	CLW-17B	C041118-CLW17B	4/11/2018	REG	71	1	1
GW	X	480-133969-1	TAL-BUFF	CLW-22	C041118-CLW22	4/11/2018	REG	71	1	1
GW	X	480-133969-1	TAL-BUFF	CLW-22B	C041118-CLW22B	4/11/2018	REG	71	1	1
GW	X	480-133969-1	TAL-BUFF	OSW-4I	C041118-OSW4I	4/11/2018	REG	71	1	1
GW	X	480-133969-1	TAL-BUFF	PP-2	C041118-PP2	4/11/2018	REG	71	1	1
GW	X	480-134067-1	TAL-BUFF	CLW-16B	C041218-CLW16B	4/12/2018	REG	71	1	1
GW	X	480-134067-1	TAL-BUFF	CLW-16B	C041218-CLW16BDUP	4/12/2018	FD	71	1	1
GW	X	480-134067-1	TAL-BUFF	OSW-2B	C041218-OSW2B	4/12/2018	REG	71	1	1
GW	X	480-134067-1	TAL-BUFF	OSW-3A	C041218-OSW3A	4/12/2018	REG	71	1	1
GW	X	480-134067-1	TAL-BUFF	OSW-3B	C041218-OSW3B	4/12/2018	REG	71	1	1
GW	X	480-134067-1	TAL-BUFF	PP-3	C041218-PP3	4/12/2018	REG	71	1	1
GW	X	480-134067-1	TAL-BUFF	PP-4A	C041218-PP4A	4/12/2018	REG	71	1	1
GW	X	480-134067-1	TAL-BUFF	PP-4B	C041218-PP4B	4/12/2018	REG	71	1	1
GW	X	480-135713-1	TAL-BUFF	XRF-30	C051018-TW1	5/10/2018	REG		2	1

prepared by WCG
reviewed by CR
7/27/22

Table F-1b
Sample and Analysis Summary (Groundwater)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	Metals	Cr6
							Method	8260	6010	7196
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	count	count	count
GW	X	480-135713-1	TAL-BUFF	XRF-31	C051018-TW2	5/10/2018	REG		2	1
GW	X	480-135713-1	TAL-BUFF	XRF-32	C051010-TW3	5/10/2018	REG		2	1
GW	X	480-135713-1	TAL-BUFF	XRF-33	C051010-TW4	5/10/2018	REG		2	1
GW	X	480-143151-1	TAL-BUFF	OSW-4I	C100918-OSW4I	10/9/2018	REG	71	1	1
GW	X	480-143151-1	TAL-BUFF	OSW-7A	C100918-OSW7A	10/9/2018	REG	71	1	1
GW	X	480-143202-1	TAL-BUFF	CIW-1B	C101018-CIW1B	10/10/2018	REG	71	1	1
GW	X	480-143202-1	TAL-BUFF	CLW-5A	C101018-CLW5A	10/10/2018	REG	71	1	1
GW	X	480-143202-1	TAL-BUFF	OSW-1A	C101018-OSW1A	10/10/2018	REG	71	1	1
GW	X	480-143202-1	TAL-BUFF	OSW-1B	C101018-OSW1B	10/10/2018	REG	71	1	1
GW	X	480-143464-1	TAL-BUFF	CLW-8	C101518-CLW8	10/15/2018	REG	71	1	1
GW	X	480-143464-1	TAL-BUFF	DMW-A	C101518-DMWA	10/15/2018	REG	71	1	1
GW	X	480-143464-1	TAL-BUFF	DMW-B	C101518-DMWB	10/15/2018	REG	71	1	1
GW	X	480-143464-1	TAL-BUFF	OSW-3A	C101518-OSW3A	10/15/2018	REG	71	1	1
GW	X	480-143464-1	TAL-BUFF	OSW-3A	C101518-OSW3A DUP	10/15/2018	FD	71	1	1
GW	X	480-143464-1	TAL-BUFF	PP-2	C101518-PP2	10/15/2018	REG	71	1	1
GW	X	480-143537-1	TAL-BUFF	CLW-16B	C101618-CLW16B	10/16/2018	REG	71	1	1
GW	X	480-143537-1	TAL-BUFF	CLW-19	C101618-CLW19	10/16/2018	REG	71	1	1
GW	X	480-143537-1	TAL-BUFF	CLW-19B	C101618-CLW19B	10/16/2018	REG	71	1	1
GW	X	480-143537-1	TAL-BUFF	CLW-20	C101618-CLW20	10/16/2018	REG	71	1	1
GW	X	480-143537-1	TAL-BUFF	CLW-20	C101618-CLW20DUP	10/16/2018	FD	71	1	1
GW	X	480-143537-1	TAL-BUFF	CLW-20B	C101618-CLW20B	10/16/2018	REG	71	1	1
GW	X	480-143537-1	TAL-BUFF	CLW-5B	C101618-CLW5B	10/16/2018	REG	71	1	1
GW	X	480-143537-1	TAL-BUFF	OSW-2B	C101618-OSW2B	10/16/2018	REG	71	1	1
GW	X	480-143537-1	TAL-BUFF	OSW-3B	C101618-OSW3B	10/16/2018	REG	71	1	1
GW	X	480-143537-1	TAL-BUFF	PP-3	C101618-PP3	10/16/2018	REG	71	1	1
GW	X	480-143628-1	TAL-BUFF	CLW-17	C101718-CLW17	10/17/2018	REG	71	1	1
GW	X	480-143628-1	TAL-BUFF	CLW-17B	C101718-CLW17B	10/17/2018	REG	71	1	1
GW	X	480-143628-1	TAL-BUFF	CLW-22	C101718-CLW22	10/17/2018	REG	71	1	1

prepared by WCG
reviewed by CR
7/27/22

Table F-1b
Sample and Analysis Summary (Groundwater)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	Metals	Cr6
							Method	8260	6010	7196
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	count	count	count
GW	X	480-143628-1	TAL-BUFF	CLW-22B	C101718-CLW22B	10/17/2018	REG	71	1	1
GW	X	480-143628-1	TAL-BUFF	PP-4A	C101718-PP4A	10/17/2018	REG	71	1	1
GW	X	480-143628-1	TAL-BUFF	PP-4B	C101718-PP4B	10/17/2018	REG	71	1	1
GW	X	480-150944-1	TAL-BUFF	OSW-3A	C032719-OSW3A	3/27/2019	REG	71	2	1
GW	X	480-150944-1	TAL-BUFF	OSW-5A	C032719-CCW5A	3/27/2019	REG	71	2	1
GW	X	480-150944-1	TAL-BUFF	OSW-5A	C032719-CCW5A-DUP	3/27/2019	FD	71	2	1
GW	X	480-150944-1	TAL-BUFF	OSW-5B	C032719-CCW5B	3/27/2019	REG	71	2	1
GW	X	480-150944-1	TAL-BUFF	OSW-7A	C032719-OSW7	3/27/2019	REG	71	2	1
GW	X	480-150944-1	TAL-BUFF	OSW-8A	C032719-OSW8	3/27/2019	REG	71	2	1
GW	X	480-151007-1	TAL-BUFF	CLW-17	C032819-CLW17	3/28/2019	REG	71	2	1
GW	X	480-151007-1	TAL-BUFF	CLW-17B	C032819-CLW17B	3/28/2019	REG	71	2	1
GW	X	480-151007-1	TAL-BUFF	CLW-19	C032819-CLW19	3/28/2019	REG	71	2	1
GW	X	480-151007-1	TAL-BUFF	CLW-19B	C032819-CLW19B	3/28/2019	REG	71	2	1
GW	X	480-151007-1	TAL-BUFF	CLW-20	C032819-CLW20	3/28/2019	REG	71	2	1
GW	X	480-151007-1	TAL-BUFF	CLW-20B	C032819-CLW20B	3/28/2019	REG	71	2	1
GW	X	480-151007-1	TAL-BUFF	CLW-22	C032819-CLW22	3/28/2019	REG	71	2	1
GW	X	480-151007-1	TAL-BUFF	CLW-22B	C032819-CLW22B	3/28/2019	REG	71	2	1
GW	X	480-151007-1	TAL-BUFF	DMW-A	C032819-DMWA	3/28/2019	REG	71	2	1
GW	X	480-151007-1	TAL-BUFF	DMW-B	C032819-DMWB	3/28/2019	REG	71	2	1
GW	X	480-151007-1	TAL-BUFF	OSW-2B	C032819-OSW2B	3/28/2019	REG	71	2	1
GW	X	480-151007-1	TAL-BUFF	OSW-4I	C032819-OSW4I	3/28/2019	REG	71	2	1
GW	X	480-151007-1	TAL-BUFF	PP-3	C032819-PP3	3/28/2019	REG	71	2	1
GW	X	480-151007-1	TAL-BUFF	PP-4A	C032819-PP4A	3/28/2019	REG	71	2	1
GW	X	480-151007-1	TAL-BUFF	PP-4B	C032819-PP4B	3/28/2019	REG	71	2	1
GW	X	480-151078-1	TAL-BUFF	CIW-1B	C032919-CIW1B	3/29/2019	REG	71	2	1
GW	X	480-151078-1	TAL-BUFF	CLW-16B	C032919-CLW16B	3/29/2019	REG	71	2	1
GW	X	480-151078-1	TAL-BUFF	OSW-1A	C032919-OSW1	3/29/2019	REG	71	2	1
GW	X	480-151078-1	TAL-BUFF	OSW-1A	C032919-OSW1-DUP	3/29/2019	FD	71	2	1

prepared by WCG
reviewed by CR
7/27/22

Table F-1b
Sample and Analysis Summary (Groundwater)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	Metals	Cr6
							Method	8260	6010	7196
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	count	count	count
GW	X	480-151078-1	TAL-BUFF	OSW-1B	C032919-OSW1B	3/29/2019	REG	71	2	1
GW	X	480-151078-1	TAL-BUFF	OSW-3B	C032919-OSW3B	3/29/2019	REG	71	2	1
GW	X	480-151078-1	TAL-BUFF	PP-2	C032919-PP2	3/29/2019	REG	71	2	1
GW	X	480-159601-1	TAL-BUFF	DMW-B	C092319-DMWB	9/23/2019	REG	71	1	1
GW	X	480-159601-1	TAL-BUFF	OSW-7A	C092319-OSW7	9/23/2019	REG	71	1	1
GW	X	480-159601-1	TAL-BUFF	OSW-7A	C092319-OSW7DUP	9/23/2019	FD	71	1	1
GW	X	480-159601-1	TAL-BUFF	DMW-A	C092319-DMWA	9/23/2019	REG	71	1	1
GW	X	480-159601-1	TAL-BUFF	CLW-8	C092319-CLW8	9/23/2019	REG	71	1	1
GW	X	480-159664-1	TAL-BUFF	CLW-19	C092419-CLW19	9/24/2019	REG	71	1	1
GW	X	480-159664-1	TAL-BUFF	CLW-19	C092419-CLW19 DUP	9/24/2019	FD	71	1	1
GW	X	480-159664-1	TAL-BUFF	PP-3	C092419-PP3	9/24/2019	REG	71	1	1
GW	X	480-159664-1	TAL-BUFF	CLW-19B	C092419-CLW19B	9/24/2019	REG	71	1	1
GW	X	480-159664-1	TAL-BUFF	PP-4A	C092419-PP4A	9/24/2019	REG	71	1	1
GW	X	480-159664-1	TAL-BUFF	CLW-22	C092419-CLW22	9/24/2019	REG	71	1	1
GW	X	480-159664-1	TAL-BUFF	PP-4B	C092419-PP4B	9/24/2019	REG	71	1	1
GW	X	480-159664-1	TAL-BUFF	CLW-22B	C092419-CLW22B	9/24/2019	REG	71	1	1
GW	X	480-159664-1	TAL-BUFF	OSW-4I	C092419-OSW4I	9/24/2019	REG	71	1	1
GW	X	480-159664-1	TAL-BUFF	PP-2	C092419-PP2	9/24/2019	REG	71	1	1
GW	X	480-159738-1	TAL-BUFF	CLW-17	C092519-CLW17	9/25/2019	REG	71	1	1
GW	X	480-159738-1	TAL-BUFF	CLW-20	C092519-CLW20	9/25/2019	REG	71	1	1
GW	X	480-159738-1	TAL-BUFF	CLW-20B	C092519-CLW20 B	9/25/2019	REG	71	1	1
GW	X	480-159738-1	TAL-BUFF	CLW-17B	C092519-CLW17 B	9/25/2019	REG	71	1	1
GW	X	480-159738-1	TAL-BUFF	OSW-3A	C092519-OSW3 A	9/25/2019	REG	71	1	1
GW	X	480-159738-1	TAL-BUFF	OSW-3B	C092519-OSW3 B	9/25/2019	REG	71	1	1
GW	X	480-159738-1	TAL-BUFF	OSW-1B	C092519-OSW1 B	9/25/2019	REG	71	1	1
GW	X	480-159833-1	TAL-BUFF	OSW-1A	C092619-OSW1A	9/26/2019	REG	71	1	1
GW	X	480-159833-1	TAL-BUFF	CIW-1B	C092619-CIW1B	9/26/2019	REG	71	1	1
GW	X	480-159833-1	TAL-BUFF	OSW-2B	C092619-OSW2B	9/26/2019	REG	71	1	1

prepared by WCG
reviewed by CR
7/27/22

Table F-1b
Sample and Analysis Summary (Groundwater)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	Metals	Cr6
							Method	8260	6010	7196
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	count	count	count
GW	X	480-159881-1	TAL-BUFF	CLW-5B	C092719-CLW5B	9/27/2019	REG	71	1	1
GW	X	480-159881-1	TAL-BUFF	CLW-16B	C092719-CLW16B	9/27/2019	REG	71	1	1
GW	X	480-167954-1	TAL-BUFF	OSW-7A	C033020-OSW7	3/30/2020	REG	71	1	1
GW	X	480-167954-1	TAL-BUFF	CLW-5B	C033020-CLW5B	3/30/2020	REG	71	1	1
GW	X	480-167954-1	TAL-BUFF	CLW-8	C033020-CLW8	3/30/2020	REG	71	1	1
GW	X	480-167954-1	TAL-BUFF	CLW-5A	C033020-CLW5A	3/30/2020	REG	71	1	1
GW	X	480-167954-1	TAL-BUFF	CLW-5A	C033020-CLW5A DUP	3/30/2020	FD	71	1	1
GW	X	480-167954-1	TAL-BUFF	OSW-2B	C033020-OSW2B	3/30/2020	REG	71	1	1
GW	X	480-167994-1	TAL-BUFF	CLW-19	C033120 - CLW19	3/31/2020	REG	71	1	1
GW	X	480-167994-1	TAL-BUFF	DMW-A	C033120 - DMWA	3/31/2020	REG	71	1	1
GW	X	480-167994-1	TAL-BUFF	CLW-19B	C033120 - CLW19B	3/31/2020	REG	71	1	1
GW	X	480-167994-1	TAL-BUFF	OSW-1B	C033120 - OSW1B	3/31/2020	REG	71	1	1
GW	X	480-167994-1	TAL-BUFF	DMW-B	C033120 - DMWB	3/31/2020	REG	71	1	1
GW	X	480-167994-1	TAL-BUFF	CLW-22	C033120 - CLW22	3/31/2020	REG	71	1	1
GW	X	480-167994-1	TAL-BUFF	OSW-1A	C033120 - OSW1A	3/31/2020	REG	71	1	1
GW	X	480-167994-1	TAL-BUFF	OSW-3A	C033120 - OSW3A	3/31/2020	REG	71	1	1
GW	X	480-167994-1	TAL-BUFF	CLW-22B	C033120 - CLW22B	3/31/2020	REG	71	1	1
GW	X	480-167994-1	TAL-BUFF	OSW-4I	C033120 - OSW4I	3/31/2020	REG	71	1	1
GW	X	480-168050-1	TAL-BUFF	PP-3	C040120-PP3	4/1/2020	REG	71	1	1
GW	X	480-168050-1	TAL-BUFF	CIW-1B	C040120-CLW1B	4/1/2020	REG	71	1	1
GW	X	480-168050-1	TAL-BUFF	CLW-17	C040120-CLW17	4/1/2020	REG	71	1	1
GW	X	480-168050-1	TAL-BUFF	PP-4A	C040120-PP4A	4/1/2020	REG	71	1	1
GW	X	480-168050-1	TAL-BUFF	PP-4B	C040120-PP4B	4/1/2020	REG	71	1	1
GW	X	480-168050-1	TAL-BUFF	PP-2	C040120-PP2	4/1/2020	REG	71	1	1
GW	X	480-168100-1	TAL-BUFF	CLW-20	C040220-CLW 20	4/2/2020	REG	71	1	1
GW	X	480-168100-1	TAL-BUFF	CLW-20B	C040220-CLW 20B	4/2/2020	REG	71	1	1
GW	X	480-168100-1	TAL-BUFF	CLW-17B	C040220-CLW 17B	4/2/2020	REG	71	1	1
GW	X	480-168100-1	TAL-BUFF	CLW-17B	C040220-CLW 17B DUP	4/2/2020	FD	71	1	1

prepared by WCG
reviewed by CR
7/27/22

Table F-1b
Sample and Analysis Summary (Groundwater)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	Metals	Cr6
							Method	8260	6010	7196
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	count	count	count
GW	X	480-168100-1	TAL-BUFF	CLW-16B	C040220-CLW 16B	4/2/2020	REG	71	1	1
GW	X	480-168100-1	TAL-BUFF	OSW-3B	C040220-OSW 3B	4/2/2020	REG	71	1	1
GW	X	480-171051-1	TAL-BUFF	CLW-7A	C061020-CLW7A	6/10/2020	REG		2	1
GW	X	480-171051-1	TAL-BUFF	CLW-8	C061020-CLW8	6/10/2020	REG		2	1
GW	X	480-171051-1	TAL-BUFF	CPZ-2C	C061020-CPZ2C	6/10/2020	REG		2	1
GW	X	480-171922-1	TAL-BUFF	CPZ-2C	C070120-CPZ2C	7/1/2020	REG		2	1
GW	X	480-171922-1	TAL-BUFF	CLW-8	C070120-CLW8	7/1/2020	REG		2	1
GW	X	480-171922-1	TAL-BUFF	RW-3	C070120-RW3	7/1/2020	REG		2	1
GW	X	480-171922-1	TAL-BUFF	CLW-7A	C070120-CCW7A	7/1/2020	REG		2	1
GW	X	480-172133-1	TAL-BUFF	CLW-7A	C070820-CLW7A	7/8/2020	REG		2	1
GW	X	480-172133-1	TAL-BUFF	RW-3	C070820-RW3	7/8/2020	REG		2	1
GW	X	480-172133-1	TAL-BUFF	CLW-8	C070820-CLW8	7/8/2020	REG		2	1
GW	X	480-172133-1	TAL-BUFF	CPZ-2C	C070820-CPZ2C	7/8/2020	REG		2	1
GW	X	480-172441-1	TAL-BUFF	CLW-8	C071520-CLW8	7/15/2020	REG		2	1
GW	X	480-172441-1	TAL-BUFF	CLW-7A	C071520-CLW7A	7/15/2020	REG		2	1
GW	X	480-172441-1	TAL-BUFF	RW-3	C071520-RW3	7/15/2020	REG		2	1
GW	X	480-172441-1	TAL-BUFF	CPZ-2C	C071520-CPZ2C	7/15/2020	REG		2	1
GW	X	480-175723-1	TAL-BUFF	OSW-7A	C092820-OSW7A	9/28/2020	REG	71	2	1
GW	X	480-175723-1	TAL-BUFF	OSW-7A	C092820-OSW7A DUP	9/28/2020	FD	71	2	1
GW	X	480-175789-1	TAL-BUFF	CLW-20	C092920 - CLW20	9/29/2020	REG	71	1	1
GW	X	480-175789-1	TAL-BUFF	CLW-22	C092920 - CLW22	9/29/2020	REG	71	1	1
GW	X	480-175789-1	TAL-BUFF	CLW-17	C092920 - CLW17	9/29/2020	REG	71	1	1
GW	X	480-175789-1	TAL-BUFF	CLW-20B	C092920 - CLW20B	9/29/2020	REG	71	1	1
GW	X	480-175789-1	TAL-BUFF	CLW-19	C092920 - CLW19	9/29/2020	REG	71	1	1
GW	X	480-175789-1	TAL-BUFF	CLW-17B	C092920 - CLW17B	9/29/2020	REG	71	1	1
GW	X	480-175789-1	TAL-BUFF	CLW-19B	C092920 - CLW19B	9/29/2020	REG	71	1	1
GW	X	480-175789-1	TAL-BUFF	CLW-22B	C092920 - CLW22B	9/29/2020	REG	71	1	1
GW	X	480-175854-1	TAL-BUFF	CLW-5B	C093020-CLW5B	9/30/2020	REG	71	1	1

prepared by WCG
reviewed by CR
7/27/22

Table F-1b
Sample and Analysis Summary (Groundwater)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	Metals	Cr6
							Method	8260	6010	7196
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	count	count	count
GW	X	480-175854-1	TAL-BUFF	CPZ-2C	C093020-CPZ2C	9/30/2020	REG		2	1
GW	X	480-175854-1	TAL-BUFF	OSW-1B	C093020-OSW1B	9/30/2020	REG	71	1	1
GW	X	480-175854-1	TAL-BUFF	CLW-7A	C093020-CLW7A	9/30/2020	REG		2	1
GW	X	480-175854-1	TAL-BUFF	DMW-A	C093020-DMWA	9/30/2020	REG	71	1	1
GW	X	480-175854-1	TAL-BUFF	RW-3	C093020-RW3	9/30/2020	REG		2	1
GW	X	480-175854-1	TAL-BUFF	DMW-B	C093020-DMWB	9/30/2020	REG	71	1	1
GW	X	480-175907-1	TAL-BUFF	CLW-8	C100120-CLW8	10/1/2020	REG	71	2	1
GW	X	480-175907-1	TAL-BUFF	OSW-4I	C100120-OSW4I	10/1/2020	REG	71	1	1
GW	X	480-175907-1	TAL-BUFF	PP-4A	C100120-PP4A	10/1/2020	REG	71	1	1
GW	X	480-175907-1	TAL-BUFF	PP-4B	C100120-PP4B	10/1/2020	REG	71	1	1
GW	X	480-175907-1	TAL-BUFF	OSW-3B	C100120-OSW3B	10/1/2020	REG	71	1	1
GW	X	480-175907-1	TAL-BUFF	PP-3A	C100120-PP3A	10/1/2020	REG	71	1	1
GW	X	480-175907-1	TAL-BUFF	PP-3A	C100120-PP3A DUP	10/1/2020	FD	71	1	1
GW	X	480-175907-1	TAL-BUFF	CLW-16B	C100120-CLW16B	10/1/2020	REG	71	1	1
GW	X	480-175907-1	TAL-BUFF	CIW-1B	C100120-CIW1B	10/1/2020	REG	71	1	1
GW	X	480-175907-1	TAL-BUFF	OSW-2B	C100120-OSW2B	10/1/2020	REG	71	1	1
GW	X	480-175907-1	TAL-BUFF	OSW-1A	C100120-OSW1A	10/1/2020	REG	71	1	1
GW	X	480-175965-1	TAL-BUFF	PP-2	C100220-PP2	10/2/2020	REG	71	1	1
GW	X	480-179654-1	TAL-BUFF	RW-3	C122120-RW3	12/21/2020	REG		2	1
GW	X	480-179654-1	TAL-BUFF	CLW-7A	C122120-CLW7A	12/21/2020	REG		2	1
GW	X	480-179654-1	TAL-BUFF	CPZ-2C	C122120-CPZ2C	12/21/2020	REG		2	1
GW	X	480-179654-1	TAL-BUFF	CLW-8	C122120-CLW8	12/21/2020	REG		2	1
GW	X	480-180238-1	TAL-BUFF	RW-3	C011421-RW3	1/14/2021	REG		1	1
GW	X	480-180238-1	TAL-BUFF	CLW-8	C011421-CLW8	1/14/2021	REG		1	1
GW	X	480-182859-1	TAL-BUFF	DMW-B	C040521-DMWB	4/5/2021	REG	71	1	1
GW	X	480-182859-1	TAL-BUFF	OSW-7A	C040521-OSW7	4/5/2021	REG	71	1	1
GW	X	480-182859-1	TAL-BUFF	CLW-5A	C04521-CLW5A	4/5/2021	REG	71	1	1
GW	X	480-182859-1	TAL-BUFF	CLW-5A	C040521-CLW5A DUP	4/5/2021	FD	71	1	1

prepared by WCG
reviewed by CR
7/27/22

Table F-1b
Sample and Analysis Summary (Groundwater)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	Metals	Cr6
							Method	8260	6010	7196
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	count	count	count
GW	X	480-182859-1	TAL-BUFF	DMW-A	C040521-DMWA	4/5/2021	REG	71	1	1
GW	X	480-182859-1	TAL-BUFF	CLW-5B	C040521-CLW5B	4/5/2021	REG	71	1	1
GW	X	480-182859-1	TAL-BUFF	CLW-8	C04521-CLW8	4/5/2021	REG	71	2	1
GW	X	480-182899-1	TAL-BUFF	CLW-20B	C040621-CLW20B	4/6/2021	REG	71	1	1
GW	X	480-182899-1	TAL-BUFF	CLW-22	C040621-CLW22	4/6/2021	REG	71	1	1
GW	X	480-182899-1	TAL-BUFF	CLW-20	C040621-CLW20	4/6/2021	REG	71	1	1
GW	X	480-182899-1	TAL-BUFF	PP-3	C040621-PP3	4/6/2021	REG	71	1	1
GW	X	480-182899-1	TAL-BUFF	CLW-22B	C040621-CLW22B	4/6/2021	REG	71	1	1
GW	X	480-182899-1	TAL-BUFF	CLW-19B	C040621-CLW19B	4/6/2021	REG	71	1	1
GW	X	480-182899-1	TAL-BUFF	PP-4B	C040621-PP4B	4/6/2021	REG	71	1	1
GW	X	480-182899-1	TAL-BUFF	PP-2	C040621-PP2	4/6/2021	REG	71	1	1
GW	X	480-182988-1	TAL-BUFF	RW-3	C040721-RW3	4/7/2021	REG		2	1
GW	X	480-182988-1	TAL-BUFF	OSW-3A	C040721-OSW3A	4/7/2021	REG	71	1	1
GW	X	480-182988-1	TAL-BUFF	CPZ-2C	C040721-CPZ2C	4/7/2021	REG		2	1
GW	X	480-182988-1	TAL-BUFF	CLW-17B	C040721-CLW17B	4/7/2021	REG	71	1	1
GW	X	480-182988-1	TAL-BUFF	OSW-3B	C040721-OSW3B	4/7/2021	REG	71	1	1
GW	X	480-182988-1	TAL-BUFF	CLW-7A	C040721-CLW7A	4/7/2021	REG		2	1
GW	X	480-182988-1	TAL-BUFF	CLW-17	C040721-CLW17	4/7/2021	REG	71	1	1
GW	X	480-182988-1	TAL-BUFF	CLW-17	C040721-CLW17DUP	4/7/2021	FD	71	1	1
GW	X	480-182988-1	TAL-BUFF	CLW-16B	C040721-CLW16B	4/7/2021	REG	71	1	1
GW	X	480-183066-1	TAL-BUFF	OSW-1A	CO40821-OSW1A	4/8/2021	REG	71	1	1
GW	X	480-183066-1	TAL-BUFF	CLW-19	CO40821-CLW19	4/8/2021	REG	71	1	1
GW	X	480-183066-1	TAL-BUFF	OSW-4I	CO40821-OSW41	4/8/2021	REG	71	1	1
GW	X	480-183066-1	TAL-BUFF	OSW-1B	CO40821-OSW1B	4/8/2021	REG	71	1	1
GW	X	480-183066-1	TAL-BUFF	PP-4A	CO40821-PP4A	4/8/2021	REG	71	1	1
GW	X	480-183066-1	TAL-BUFF	OSW-2B	CO40821-OSW2B	4/8/2021	REG	71	1	1
GW	X	480-183066-1	TAL-BUFF	CIW-1B	CO40821-C1W1B	4/8/2021	REG	71	1	1
GW	X	480-186189-1	TAL-BUFF	RW-3	C061621-RW3	6/16/2021	REG		2	1

prepared by WCG
reviewed by CR
7/27/22

Table F-1b
Sample and Analysis Summary (Groundwater)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	Metals	Cr6
							Method	8260	6010	7196
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	count	count	count
GW	X	480-186189-1	TAL-BUFF	CLW-7A	C061621-CLW7A	6/16/2021	REG		2	1
GW	X	480-186189-1	TAL-BUFF	CPZ-2C	C061621-CPZ2C	6/16/2021	REG		2	1
GW	X	480-186189-1	TAL-BUFF	CLW-8	C061621-CLW8	6/16/2021	REG		2	1
GW	X	480-190155-1	TAL-BUFF	CLW-7A	C092721-CLW7A	9/27/2021	REG		2	1
GW	X	480-190155-1	TAL-BUFF	RW-3	C092721-RW3	9/27/2021	REG		2	1
GW	X	480-190155-1	TAL-BUFF	CLW-8	C092721-CLW8	9/27/2021	REG		2	1
GW	X	480-190155-1	TAL-BUFF	CPZ-2C	C092721-CPZ2C	9/27/2021	REG		2	1

Notes:
Cr6 = hexavalent chromium
DV RPT = data validation report
FD = field duplicate
GW = groundwater
REG = field sample
VOCs = volatile organic compounds

Table F-1c
Sample and Analysis Summary (Groundwater BR)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:	VOCs	Metals	Cr6
						Method:	8260	6010	7196
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	Count	Count	Count
GW	X	480-46210-1	TAL-BUFF	OSW-1B	C091913-OSW1B	9/19/2013	REG	71	2	1
GW	X	480-46917-1	TAL-BUFF	BIW-14	C100113-BIW14	10/1/2013	REG	71	1	1
GW	X	480-46917-1	TAL-BUFF	BIW-16	C100113-BIW16	10/1/2013	REG	71	1	1
GW	X	480-46917-1	TAL-BUFF	BIW-32	C100113-BIW32	10/1/2013	REG	71	1	1
GW	X	480-46917-1	TAL-BUFF	BIW-4	C100113-BIW4	10/1/2013	REG	71	1	1
GW	X	480-46917-1	TAL-BUFF	BIW-6	C100113-BIW6	10/1/2013	REG	71	1	1
GW	X	480-46917-1	TAL-BUFF	BIW-7	C100113-BIW7	10/1/2013	REG	71	1	1
GW	X	480-46917-1	TAL-BUFF	BMW-5	C100113-BMW5	10/1/2013	REG	71	1	1
GW	X	480-47038-1	TAL-BUFF	BIW-1	C100213-BIW1	10/2/2013	REG	71	1	1
GW	X	480-47038-1	TAL-BUFF	BIW-15	C100213-BIW15	10/2/2013	REG	71	1	1
GW	X	480-47038-1	TAL-BUFF	BIW-2	C100213-BIW2	10/2/2013	REG	71	1	1
GW	X	480-47038-1	TAL-BUFF	BIW-24	C100213-BIW24	10/2/2013	REG	71	1	1
GW	X	480-47038-1	TAL-BUFF	BIW-31	C100213-BIW31	10/2/2013	REG	71	1	1
GW	X	480-47038-1	TAL-BUFF	BIW-33	C100213-BIW33	10/2/2013	REG	71	1	1
GW	X	480-47038-1	TAL-BUFF	BIW-5	C100213-BIW5	10/2/2013	REG	71	1	1
GW	X	480-52240-1	TAL-BUFF	BIW-1	C121813-B1W1	12/18/2013	REG	71	1	1
GW	X	480-52240-1	TAL-BUFF	BIW-24	C121813-B1W24	12/18/2013	REG	71	1	1
GW	X	480-52240-1	TAL-BUFF	BIW-32	C121813-B1W32	12/18/2013	REG	71	1	1
GW	X	480-52240-1	TAL-BUFF	BIW-4	C121813-B1W4	12/18/2013	REG	71	1	1
GW	X	480-52240-1	TAL-BUFF	BIW-6	C121813-B1W6	12/18/2013	REG	71	1	1
GW	X	480-52240-1	TAL-BUFF	BIW-7	C121813-B1W7	12/18/2013	REG	71	1	1
GW	X	480-52240-1	TAL-BUFF	BMW-5	C121813-BMW5	12/18/2013	REG	71	1	1
GW	X	480-52240-1	TAL-BUFF	OSW-1B	C121813-OSW1B	12/18/2013	REG	71	1	1
GW	X	480-52340-1	TAL-BUFF	BIW-14	C121913-B1W14	12/19/2013	REG	71	1	1
GW	X	480-52340-1	TAL-BUFF	BIW-15	C121913-B1W15	12/19/2013	REG	71	1	1
GW	X	480-52340-1	TAL-BUFF	BIW-16	C121913-B1W16	12/19/2013	REG	71	1	1
GW	X	480-52340-1	TAL-BUFF	BIW-2	C121913-B1W2	12/19/2013	REG	71	1	1
GW	X	480-52340-1	TAL-BUFF	BIW-31	C121913-B1W31	12/19/2013	REG	71	1	1
GW	X	480-52340-1	TAL-BUFF	BIW-33	C121913-B1W33	12/19/2013	REG	71	1	1
GW	X	480-52340-1	TAL-BUFF	BIW-5	C121913-B1W5	12/19/2013	REG	71	1	1
GW	X	480-57316-1	TAL-BUFF	OSW-1B	C040414-OSW1B	4/4/2014	REG	71	1	1

Table F-1c
Sample and Analysis Summary (Groundwater BR)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:	VOCs	Metals	Cr6
						Method:	8260	6010	7196
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	Count	Count	Count
GW	X	480-57600-1	TAL-BUFF	BIW-1	C040914-B1W01	4/9/2014	REG	71	1	1
GW	X	480-57600-1	TAL-BUFF	BIW-16	C040914-B1W16	4/9/2014	REG	71	1	1
GW	X	480-57600-1	TAL-BUFF	BIW-2	C040914-B1W02	4/9/2014	REG	71	1	1
GW	X	480-57600-1	TAL-BUFF	BIW-32	C040914-B1W32	4/9/2014	REG	71	1	1
GW	X	480-57600-1	TAL-BUFF	BIW-4	C040914-B1W04	4/9/2014	REG	71	1	1
GW	X	480-57600-1	TAL-BUFF	BIW-6	C040914-B1W06	4/9/2014	REG	71	1	1
GW	X	480-57600-1	TAL-BUFF	BIW-7	C040914-B1W07	4/9/2014	REG	71	1	1
GW	X	480-57702-1	TAL-BUFF	BIW-14	C041014-BIW14	4/10/2014	REG	71	1	1
GW	X	480-57702-1	TAL-BUFF	BIW-15	C041014-BIW15	4/10/2014	REG	71	1	1
GW	X	480-57702-1	TAL-BUFF	BIW-24	C041014-BIW24	4/10/2014	REG	71	1	1
GW	X	480-57702-1	TAL-BUFF	BIW-31	C041014-BIW31	4/10/2014	REG	71	1	1
GW	X	480-57702-1	TAL-BUFF	BIW-33	C041014-BIW33	4/10/2014	REG	71	1	1
GW	X	480-57702-1	TAL-BUFF	BIW-5	C041014-B1W05	4/10/2014	REG	71	1	1
GW	X	480-57702-1	TAL-BUFF	BMW-5	C041014-BMW05	4/10/2014	REG	71	1	1
GW	X	480-62603-1	TAL-BUFF	BIW-1	C062414-B1W1	6/24/2014	REG	71	1	1
GW	X	480-62603-1	TAL-BUFF	BIW-16	C062414-B1W16	6/24/2014	REG	71	1	1
GW	X	480-62603-1	TAL-BUFF	BIW-2	C062414-B1W2	6/24/2014	REG	71	1	1
GW	X	480-62603-1	TAL-BUFF	BIW-32	C062414-B1W32	6/24/2014	REG	71	1	1
GW	X	480-62603-1	TAL-BUFF	BIW-4	C062414-B1W4	6/24/2014	REG	71	1	1
GW	X	480-62603-1	TAL-BUFF	BIW-6	C062414-B1W6	6/24/2014	REG	71	1	1
GW	X	480-62603-1	TAL-BUFF	BIW-7	C062414-B1W7	6/24/2014	REG	71	1	1
GW	X	480-62603-1	TAL-BUFF	BMW-5	C062414-BMW5	6/24/2014	REG	71	1	1
GW	X	480-62699-1	TAL-BUFF	BIW-14	C062514-B1W14	6/25/2014	REG	71	1	1
GW	X	480-62699-1	TAL-BUFF	BIW-15	C062514-B1W15	6/25/2014	REG	71	1	1
GW	X	480-62699-1	TAL-BUFF	BIW-24	C062514-B1W24	6/25/2014	REG	71	1	1
GW	X	480-62699-1	TAL-BUFF	BIW-31	C062514-B1W31	6/25/2014	REG	71	1	1
GW	X	480-62699-1	TAL-BUFF	BIW-33	C062514-B1W33	6/25/2014	REG	71	1	1
GW	X	480-62699-1	TAL-BUFF	BIW-5	C062514-B1W5	6/25/2014	REG	71	1	1
GW	X	480-62699-1	TAL-BUFF	OSW-1B	C062514-OSW1B	6/25/2014	REG	71	1	1

Notes:
Cr6 = hexavalent chromium
DV RPT = data validation report
FD = field duplicate
GW = groundwater
REG = field sample
VOCs = volatile organic compounds

Table F-1d
Sample and Analysis Summary (Surface Water)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	Metals	Hg	Cr6
							Method	8260	6010	7470	7196
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	Count	Count	Count	Count
SW	X	480-164459-1	TAL-BUFF	CSW-5	C121919-CSW5	12/19/2019	REG	71	22	1	1
SW	X	480-164459-1	TAL-BUFF	CSW-4	C121919-CSW4	12/19/2019	REG	71	22	1	1
SW	X	480-164459-1	TAL-BUFF	CSW-3A	C121919-CSW3A	12/19/2019	REG	71	22	1	1
SW	X	480-164459-1	TAL-BUFF	CSW-3	C121919-CSW3	12/19/2019	REG	71	22	1	1
SW	X	480-164459-1	TAL-BUFF	CSW-3	C121919-CSW3 DUP	12/19/2019	FD	71	22	1	1
SW	X	480-164459-1	TAL-BUFF	CSW-2	C121919-CSW2	12/19/2019	REG	71	22	1	1
SW	X	480-168232-1	TAL-BUFF	CSW-5	C040620-CSW5	4/6/2020	REG	71	22	1	1
SW	X	480-168232-1	TAL-BUFF	CSW-4	C040620-CSW4	4/6/2020	REG	71	22	1	1
SW	X	480-168232-1	TAL-BUFF	CSW-3A	C040620-CSW3A	4/6/2020	REG	71	22	1	1
SW	X	480-168232-1	TAL-BUFF	CSW-3	C040620-CSW3	4/6/2020	REG	71	22	1	1
SW	X	480-168232-1	TAL-BUFF	CSW-3	C040620-CSW3 DUP	4/6/2020	FD	71	22	1	1
SW	X	480-168232-1	TAL-BUFF	CSW-2	C040620-CSW2	4/6/2020	REG	71	22	1	1
SW	X	480-169659-1	TAL-BUFF	CSW-3	C050720-CSW3	5/7/2020	REG		1		1
SW	X	480-171049-1	TAL-BUFF	CSW-5	C061020-CSW5	6/10/2020	REG	71	22	1	1
SW	X	480-171049-1	TAL-BUFF	CSW-3A	C061020-CSW3A	6/10/2020	REG	71	22	1	1
SW	X	480-171049-1	TAL-BUFF	CSW-3	C061020-CSW3	6/10/2020	REG	71	22	1	1
SW	X	480-171922-1	TAL-BUFF	CSW-3	C070120-CSW3	7/1/2020	REG		2		1
SW	X	480-172133-1	TAL-BUFF	CSW-3	C070820-CSW3	7/8/2020	REG		2		1
SW	X	480-172441-1	TAL-BUFF	CSW-3	C071520-CSW3	7/15/2020	REG		2		1
SW	X	480-175723-1	TAL-BUFF	CSW-3A	C092820-CSW3A	9/28/2020	REG	71	22	1	1
SW	X	480-175723-1	TAL-BUFF	CSW-3	C092820-CSW3	9/28/2020	REG	71	24	1	1
SW		480-177455-1	TAL-BUFF	CSW-3	C110220-CSW3	11/2/2020	REG		2		1
SW		480-177455-1	TAL-BUFF	CSW-2	C110220-CSW2	11/2/2020	REG		2		1
SW	X	480-179602-1	TAL-BUFF	CSW-5	C122120-CSW5	12/21/2020	REG	71	22	1	1
SW	X	480-179602-1	TAL-BUFF	CSW-4	C122120-CSW4	12/21/2020	REG	71	22	1	1
SW	X	480-179602-1	TAL-BUFF	CSW-3A	C122120-CSW3A	12/21/2020	REG	71	22	1	1
SW	X	480-179602-1	TAL-BUFF	CSW-3A	C122120-CSW4	12/21/2020	FD	71	22	1	1
SW	X	480-179602-1	TAL-BUFF	CSW-3	C122120-CSW3	12/21/2020	REG	71	24	1	1

prepared by WCG
reviewed by CR
7/27/22

Table F-1d
Sample and Analysis Summary (Surface Water)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	Metals	Hg	Cr6
							Method	8260	6010	7470	7196
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	Count	Count	Count	Count
SW	X	480-179602-1	TAL-BUFF	CSW-2	C122120-CSW2	12/21/2020	REG	71	24	1	1
SW	X	480-182857-1	TAL-BUFF	CSW-5	C040521-CSW5	4/5/2021	REG	71	22	1	1
SW	X	480-182857-1	TAL-BUFF	CSW-4	C040521-CSW4	4/5/2021	REG	71	22	1	1
SW	X	480-182857-1	TAL-BUFF	CSW-3A	C04521-CSW3A	4/5/2021	REG	71	22	1	1
SW	X	480-182857-1	TAL-BUFF	CSW-2	C04521-CSW2	4/5/2021	REG	71	24	1	1
SW	X	480-182857-1	TAL-BUFF	CSW-3	C04521-CSW3	4/5/2021	REG	71	24	1	1
SW	X	480-186187-1	TAL-BUFF	CSW-5	C061621-CSW5	6/16/2021	REG	71	22	1	1
SW	X	480-186187-1	TAL-BUFF	CSW-4	C061621-CSW4	6/16/2021	REG	71	22	1	1
SW	X	480-186187-1	TAL-BUFF	CSW-3A	C061621-CSW3A	6/16/2021	REG	71	22	1	1
SW	X	480-186187-1	TAL-BUFF	CSW-3	C061621-CSW3	6/16/2021	REG	71	24	1	1
SW	X	480-186187-1	TAL-BUFF	CSW-2	C061621-CSW2	6/16/2021	REG	71	24	1	1
SW	X	480-186187-1	TAL-BUFF	CSW-2	C061621-CSW2DUP	6/16/2021	FD	71	22	1	1
SW	X	480-190155-1	TAL-BUFF	CSW-5	C092721-CSW5	9/27/2021	REG	71	22		1
SW	X	480-190155-1	TAL-BUFF	CSW-4	C092721-CSW4	9/27/2021	REG	71	22		1
SW	X	480-190155-1	TAL-BUFF	CSW-3A	C092721-CSW3A	9/27/2021	REG	71	22		1
SW	X	480-190155-1	TAL-BUFF	CSW-3	C092721-CSW3	9/27/2021	REG	71	24		1
SW	X	480-190155-1	TAL-BUFF	CSW-2	C092721-CSW2	9/27/2021	REG	71	24		1

Notes:
Cr6 = hexavalent chromium
DV RPT = data validation report
FD = field duplicate
Hg = mercury
REG = field sample
SW = surface water
VOCs = volatile organic compounds

prepared by WCG
reviewed by CR
7/27/22

Table F-1e
Sample and Analysis Summary (Sediment)
Conductorlab
430 Main Street
Groton, Massachusetts

						Parameter Class:		VOCs	SVOCs	PEST	Metals	Hg	Cr6	Cr6
							Method:	8260	8270	8081	6010	7471	7196	SM3500
Media	DV RPT	SDG	Lab	Location	Field Sample ID	Date	Type	count	count	count	count	count	count	count
SED		230743	STL-PA	CSW-1	C111105-CSW1-S1	11/11/2005	REG				1		1	
SED		230743	STL-PA	CSW-12	C111105-CSW12-S1	11/11/2005	REG				1		1	
SED		230743	STL-PA	CSW-2	C111105-CSW2-S1	11/11/2005	REG				1		1	
SED		230743	STL-PA	CSW-3	C111105-CSW3-S1	11/11/2005	REG				1		1	
SED		230743	STL-PA	CSW-4	C111105-CSW4-S1	11/11/2005	REG				1		1	
SED		230743	STL-PA	CSW-5	C111105-CSW5-S1	11/11/2005	REG				1		1	
SED		230743	STL-PA	CSW-7	C111105-CSW7-S1	11/11/2005	REG				1		1	
SED	X	360-9209-1	STL-WSTFLD	CSW-12	C040407-CSW12	4/4/2007	REG				3		1	
SED	X	360-9209-1	STL-WSTFLD	CSW-2	C040407-CSW2	4/4/2007	REG				1			
SED	X	360-9209-1	STL-WSTFLD	CSW-4	C040407-CSW4	4/4/2007	REG				1			
SED	X	360-9209-1	STL-WSTFLD	CSW-5	C040407-CSW5	4/4/2007	REG				3		1	
SED	X	360-9209-1	STL-WSTFLD	CSW-8	C040407-CSW8	4/4/2007	REG				3		1	
SED	X	480-138352-1	TAL-BUFF	CSD-1	C070218-CSD1	7/2/2018	REG	71						
SED	X	480-138352-1	TAL-BUFF	CSD-3	C070218-CSD3	7/2/2018	REG	71						
SED	X	480-138352-1	TAL-BUFF	CSD-3A	C070218-CSD3A	7/2/2018	REG	71						
SED	X	480-138352-1	TAL-BUFF	CSD-5	C070218-CSD5	7/2/2018	REG	71						
SED	X	480-138352-1	TAL-BUFF	CSD-BKG001	C070218-CSDBKG-001	7/2/2018	REG	71						
SED	X	480-138423-1	TAL-BUFF	CSD-1	C070218-CSD1	7/2/2018	REG		59	19	13	1	1	1
SED	X	480-138423-1	TAL-BUFF	CSD-3	C070218-CSD3	7/2/2018	REG		59	19	13	1	1	1
SED	X	480-138423-1	TAL-BUFF	CSD-3A	C070218-CSD3A	7/2/2018	REG		59	19	13	1	1	1
SED	X	480-138423-1	TAL-BUFF	CSD-5	C070218-CSD5	7/2/2018	REG		59	19	13	1	1	1
SED	X	480-138423-1	TAL-BUFF	CSD-BKG001	C070218-CSDBKG-001	7/2/2018	REG		59	19	13	1	1	1

Notes:
Cr6 = hexavalent chromium
DV RPT = data validation report
FD = field duplicate
Hg = mercury
PEST = pesticides
REG = field sample
SVOCs = semivolatile organic compounds
VOCs = volatile organic compounds

prepared by WCG
reviewed by CR
7/27/22

Table E-2
Total Chromium XRF Results
Honeywell Conductorlab
430 Main Street, Groton Massachusetts

Sample ID	Date	Soil (mg/kg)				
		Total Cr Result	Lab: Total Cr	Lab: Cr+3	Lab: Cr+6	RPD
CXRF-30(0-5)/TW1	5/10/2018	96	43	42.8	0.17 J	76
CXRF-30(0-5)/TW1 DUP	5/10/2018	102				
CXRF-30(5-8)/TW1	5/10/2018	516	670	669.7	0.25 J	26
CXRF-30(10-11)/TW1	5/10/2018	291				
CXRF-31(0-5)/TW2	5/10/2018	<130	42	41.5	< 0.45 U	
CXRF-31(5-8)/TW2	5/10/2018	336	300	298	1.9	11
CXRF-32(0-5)/TW3	5/10/2018	<154	41	40.5	< 0.45 U	
CXRF-32(5-8)/TW3	5/10/2018	1442	730	723.2	6.8	66
CXRF-32(10-13)/TW3	5/10/2018	540				
CXRF-33(0-5)/TW4	5/10/2018	88	54	53.8	0.17 J	48
CXRF-33(5-8)/TW4	5/10/2018	1106	840	838	2.1	27
CXRF-33(10-12)/TW4	5/10/2018	759				
CXRF-34(0-5)	5/10/2018	96	62	61.8	0.19 J	43
CXRF-34(5-8)	5/10/2018	441	340	339.4	< 0.61 U	26
CXRF-34(8-10)	5/10/2018	389				
CXRF-35(0-5)	5/10/2018	161	85	84.8	0.18 J	62
CXRF-35(5-8)	5/10/2018	157				
CXRF-35(8-10)	5/10/2018	778	1100	1099.8	0.18 J	34
CXRF-35(10-14)	5/10/2018	396				
CXRF-36(0-5)	5/10/2018	149	130	129.3	0.73	14
CXRF-36(5-7)	5/10/2018	102				
CXRF-36(5-7) DUP	5/10/2018	106				
CXRF-36(7-10)	5/10/2018	<120				
CXRF-36(10-13)	5/10/2018	466	230	227.6	2.4	68
CXRF-37(0-5)	5/10/2018	<170	54	53.8	0.16 J	
CXRF-37(5-7)	5/10/2018	99				
CXRF-37(7-10)	5/10/2018	238	300	299.7	0.29 J	23
CXRF-37(10-14)	5/10/2018	150				
CXRF-38(0-5)	5/10/2018	154	110	109.4	0.61	33
CXRF-38(5-7)	5/10/2018	424				
CXRF-38(7-10)	5/10/2018	874	620	617.7	2.3	34
CXRF-38(10-12)	5/10/2018	444				
CXRF-39(0-5)	5/10/2018	<123	38	37.5	< 0.46 U	
CXRF-39(5-7)	5/10/2018	394				
CXRF-39(7-10)	5/10/2018	714	930	929.8	0.22 J	26
CXRF-39(10-12)	5/10/2018	249				
CXRF-39(10-12) DUP	5/10/2018	262				

Notes: Average RPD 2017 and 2018: 40

Instrument used for analysis: INNOV-X-SYSTEMS Alpha 4000 portable X-Ray Fluorescence (XRF) device

Sample depth (e.g."(0-5)" was determined on depth to water and refusal

Split sample lab analyses by EPA Methods 6010 and 7196A

Cr= Total Chromium

Cr+6=Hexavalent Chromium

ND= Not Detected

RPD = relative percent difference

Prepared By: ANC 05/11/18

Checked By: CTM 05/29/18