

TEMPORARY SOLUTION OPERATION, MAINTENANCE, AND MONITORING REPORT

JANUARY 2018 – JUNE 2018

CONDUCTORLAB SITE (RTN 2-00053)
GROTON, MASSACHUSETTS

Prepared For:

Honeywell

Honeywell International Inc.
115 Tabor Road
Morris Plains, New Jersey 07950

Prepared By:

wood.

Wood Environment & Infrastructure Solutions, Inc.
271 Mill Road, 3rd Floor
Chelmsford, Massachusetts 01824
Phone: (978) 692-9090
Fax: (978) 692-6633

SEPTEMBER 2018

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Phone: (978) 692-9090
Fax: (978) 692-6633

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Reviewed and approved by:

Senior Project Scientist: 
Christopher Mazzolini Date: 9/13/2018

Principal: 
Kerry R. Tull, LSP Date: 9/13/2018

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GLOSSARY OF ACRONYMS

Amec	Amec Environment & Infrastructure, Inc.
Amec Foster Wheeler	Amec Foster Wheeler Environment & Infrastructure, Inc.
AWQC	Ambient Water Quality Criteria
CMR	Code of Massachusetts Regulations
COC	Constituents of Concern
Cr	Total Chromium
Cr ⁺⁶	Hexavalent Chromium
Cu	Copper
DCE	<i>cis</i> -1,2-Dichloroethene
EDTA	Ethylenediaminetetraacetic Acid
GWTS	Groundwater Treatment System
Honeywell	Honeywell International Inc.
ISCO	<i>In-situ</i> Chemical Oxidation
ISCR	<i>In-situ</i> Chemical Reduction
lbs./day	pounds per day
MassDEP	Massachusetts Department of Environmental Protection
MCP	Massachusetts Contingency Plan
µg/L	Micrograms per Liter
O&M	Operations and Maintenance
OM&M	Operation, Maintenance, and Monitoring
RAO	Response Action Outcome
RAP	Remedial Action Plan
RGP	Remediation General Permit
RIP	Remedy Implementation Plan
RTN	Release Tracking Number
SMBS	Sodium Meta-bisulfite
TAL	Target Analyte List
TCE	Trichloroethylene
UCL	Upper Concentration Limit
USEPA	U.S. Environmental Protection Agency
VC	Vinyl Chloride
VOCs	Volatile Organic Compounds
Wood E&IS	Wood Environment & Infrastructure Solutions, Inc.

EXECUTIVE SUMMARY

On behalf of Honeywell International Inc. (Honeywell), Wood Environment & Infrastructure Solutions, Inc. (Wood E&IS), has prepared this Temporary Solution Operation, Maintenance, and Monitoring (OM&M) report for the Conductorlab property located at 430 Main Street in Groton, Massachusetts (the Site). This OM&M report was completed for the January 2018 through June 2018 period per the Code of Massachusetts Regulations (CMR) 40.0897(2) and 310 CMR 40.0892. This report summarizes ongoing groundwater monitoring results of the Site. Wood E&IS is continuing to monitor trichloroethylene (TCE) and hexavalent chromium (Cr^{+6}) following *in-situ* chemical oxidation (ISCO) and *in-situ* chemical reduction (ISCR) respectively.

Site Monitoring Activities

During the January 2018 through June 2018 monitoring period, on-property and off-property groundwater, and surface water samples were collected and analyzed for constituents of concern (COCs) comprised of volatile organic compounds (VOCs), total Cr (Cr), and Cr^{+6} .

On-Property: Groundwater. The average concentrations of TCE, Cr, and Cr^{+6} from on-property groundwater sample locations are below GW-3 standards with fluctuations (within the range of historical concentrations) at locations: CLW-5B, CLW-16B, and OSW-1.

Off-Property: Groundwater. Groundwater data from off-property monitoring wells indicates that average concentrations of TCE, Cr, and Cr^{+6} are below GW-3 standards. This average represents the cumulative concentrations observed over the last several years.

Off-Property: Surface Water. Four out of five surface water samples (collected from the Unnamed Brook) continue to exhibit Cr^{+6} concentrations above the Ambient Water Quality Criteria (AWQC). This condition remains a focus at the Conductorlab Site and an additional Cr^{+6} source investigation was conducted in May 2018 along with an ecological risk assessment initiated in July 2018.

Groundwater Treatment System (GWTS)

The GWTS was shut down in March 2012 and the building was demolished in November 2017. Groundwater sampling results following the ISCO and ISCR programs demonstrated that the *in-situ* remediation was effective at treating groundwater so that the average TCE and Cr^{+6} concentrations remain below their respective Upper Concentration Limits (UCLs), and meet site-specific risk-based closure goals under a Method 3 Risk Characterization.

ISCO/ ISCR Treatments

The last ISCO treatments were applied in January 2013. Approximately 190 gallons of sodium persulfate and ferric sodium ethylenediaminetetraacetic Acid (EDTA) were applied

to nineteen bedrock wells across the impacted zone. The last ISCR remediation, consisting of calcium polysulfide (CAPS) solution, was completed in January 2016 to address elevated Cr⁺⁶ concentrations at monitoring well locations CLW-8 and PP-3.

Honeywell and Wood E&IS conducted Cr and Cr⁺⁶ source area investigation surrounding CLW-8 in September 2017 and May 2018. Based on the results, an ecological risk assessment was initiated in July 2018 and a bench scale test for treatability of residual Cr⁺⁶ sources is proposed in September 2018 to remediate the potential source areas that may be impacting the surface waters.

Confirmatory Bedrock Groundwater Sampling

Four quarterly bedrock groundwater sampling events were completed in October 2013, December 2013, April 2014, and June 2014 as part of demonstrating the effectiveness of the in-situ remedial actions on TCE. These quarterly bedrock groundwater results demonstrated that average concentrations of Site related contaminants (VOCs, Cr, and Cr⁺⁶) were below their respective UCL during the four quarterly rounds of sampling. Therefore the goals of the Phase IV Remedial Implementation Plan (Phase IV RIP) were met.

Additional Monitoring

As described above, the quarterly rounds of bedrock groundwater monitoring demonstrated that the remediation was effective, and the results were below their applicable UCL goals; however, Site groundwater and surface water, on- and off-property, continue to be monitored until a Permanent Solution is achieved.

An ecological risk assessment was initiated in July 2018 and a bench scale test for treatability of Cr⁺⁶ source areas surrounding CLW-8 is proposed for September 2018. Surface water and select monitoring well data continues to be evaluated with focus on areas where Cr⁺⁶ concentrations exceed AWQC and GW-3 standards.

1.0 INTRODUCTION

The Conductorlab property is located at 430 Main Street in Groton, Massachusetts, on the east side of Route 111/119, approximately 0.75 miles north of the center of Groton. A Site locus is provided as **Figure 1**; a Site map including off-property monitoring locations is provided as **Figure 2**; an on-property Site map, including prominent on-property features and monitoring well locations, is provided as **Figure 3**.

1.1 REPORT ORGANIZATION

This report is organized as follows:

- Section 1 – Introduction
- Section 2 – Site Monitoring Activities
- Section 3 – Supplemental Activities
- Section 4 – Future Activities
- Section 5 – Summary of Findings
- Section 6 – References

1.2 REGULATORY BACKGROUND

On February 2, 1996, a temporary Class C RAO was filed for the Site. Operations and maintenance (O&M) activities have been conducted at the Site in accordance with the OM&M Plan (Earth Tech, 1995), which was submitted to the MassDEP and has been updated every six months. The selected remedy (groundwater capture and treatment) operated at the Site for more than 15 years. During this time the GWTS provided hydraulic control and removed subsurface contaminants.

While the groundwater treatment system was in place, Honeywell actively pursued alternate technologies that could more effectively advance the Site to closure. On June 18, 2009, Mactec Engineering and Consulting, Inc. (now Wood Environment & Infrastructure Solutions, Inc.), on behalf of Honeywell, submitted a Phase III Remedial Action Plan (RAP), which described the information, reasoning, and results used to identify, evaluate, and select an alternative remedial action. The outcome of the Phase III RAP resulted in the Phase IV RIP under which ISCO was selected to treat TCE in the bedrock while ISCR was selected to treat Cr⁺⁶. The objective for both treatments was to achieve levels below the MassDEP UCL to address risk-based Site closure requirements. The Phase IV RIP documented the design, construction, and implementation requirements for the ISCO remedy.

As stated previously, ISCO treatments for TCE had the potential to convert Cr⁺³ to Cr⁺⁶. This occurred in certain areas of the Site including near monitoring well locations CLW-8 and PP-3 and surface water locations CSW-3, CSW-3A, and CSW-4. Based on groundwater and surface water results from 2015, it was determined that additional ISCR treatment was necessary to treat groundwater discharging to the surface water thereby improving the water quality in the Unnamed Brook. Wood E&IS submitted a Phase IV RIP Amendment to the MassDEP dated November 2015 and ISCR remediation was completed in January 2016. Section 2.3 summarizes post-ISCR groundwater and surface water results.

1.3 GROUNDWATER TREATMENT SYSTEM

The GWTS has not operated since March 2012. Since then, Wood E&IS has applied several rounds of *in-situ* ISCO and ISCR treatments. Groundwater analytical data collected since the treatments have demonstrated that remediation has been effective in the reduction of TCE, and Cr⁺⁶ to meet site-specific risk-based closure goals for groundwater under a Method 3 Risk Characterization. The GWTS building was removed in November 2017.

1.4 MONITORING SUMMARY

On-property and off-property monitoring wells are sampled semi-annually in March and September. Surface water is sampled quarterly in March, June, September, and December. Four quarterly bedrock groundwater sampling events were completed by June 2014. The sampling and analytical schedule for all field events during the January 2018 through June 2018 monitoring period are presented in **Table 1**.

2.0 SITE MONITORING ACTIVITIES

2.1 GROUNDWATER ELEVATION MEASUREMENTS

Groundwater elevation measurements were collected on April 6, 2018; a summary of this data is provided in **Table 2**. Groundwater contours for the overburden and bedrock aquifers are presented in **Figure 4A** and **Figure 4B**, respectively. As shown on the figures, groundwater flow direction, in both the overburden and bedrock aquifers, is generally inferred to the west.

2.2 GROUNDWATER AND SURFACE WATER SAMPLING

As indicated on **Table 1**, groundwater samples from monitoring wells and/or surface water were collected in April 2018 and July 2018. Groundwater and surface water samples were analyzed for VOCs by Method 8260C, total Cr (Cr) by Method 6010C, Cr⁺⁶ by Method 7196A, and select dissolved metals by Method 6010C. Sampling locations are presented by type in Sections 2.2.1 through 2.2.5 below. A summary of Site-wide analytical results is presented in Section 2.3.

2.2.1 On-Property Groundwater Monitoring Wells

In April 2018, Wood E&IS collected groundwater samples from eight overburden monitoring wells and seven bedrock monitoring wells. The monitoring wells were sampled using low flow methods (refer to **Appendix A**) and samples were submitted for laboratory analyses including VOCs, Cr, and Cr⁺⁶. The groundwater sampling records are provided in **Appendix B**. Monitoring wells are identified in the following tables and can be located on **Figure 3**. Groundwater sampling results are summarized in **Table 3A**.

On-Property Monitoring Wells Sampled in April 2018	
Overburden Monitoring Wells	Bedrock Monitoring Wells
CLW-5A	CIW-1B
CLW-8	CLW-5B
DMW-A	CLW-16B
OSW-1A	DMW-B
OSW-3A	OSW-1B
OSW-4I	OSW-2B
OSW-7	OSW-3B
PP-2	

2.2.2 On-Property Bedrock Monitoring Wells

Wood E&IS conducted post-ISCO sampling to assess remediation progress for four consecutive quarters. Groundwater was collected from 15 bedrock monitoring wells (**Figure 3**) in October 2013, December 2013, April 2014 and June 2014. The samples were collected using low flow methods and sampling procedures as described in **Appendix A**. The groundwater samples were collected and submitted to Test America Laboratory for VOCs, Cr, and Cr⁺⁶ analyses. Groundwater sampling results are summarized in **Table 3B**.

Bedrock Monitoring Wells Sampled Post-ISCO Treatment October 2013, December 2013, April 2014, and June 2014	
Bedrock Monitoring Wells	Bedrock Monitoring Wells
BIW-1	BIW-16
BIW-2	BIW-24
BIW-4	BIW-31
BIW-5	BIW-32
BIW-6	BIW-33
BIW-7	BMW-5
BIW-14	OSW-1B
BIW-15	

2.2.3 Off-Property Groundwater Monitoring Wells

In April 2018, Wood E&IS collected groundwater samples from 11 off-property monitoring wells (six overburden and five bedrock) to monitor off-property impacts. Monitoring wells can be located on **Figure 2**. The off-property wells were sampled in the same manner as on-property wells and submitted to Test America Laboratory for VOCs, Cr, and Cr⁺⁶ analyses. Groundwater sampling records are provided in **Appendix B**. Groundwater sampling results are summarized in **Table 3C**.

Off-Property Monitoring Wells Sampled in April 2018	
Overburden Monitoring Wells	Bedrock Monitoring Wells
CLW-17	CLW-17B
CLW-19	CLW-19B
CLW-20	CLW-20B
CLW-22	CLW-22B
PP-3	PP-4B
PP-4A	

2.2.4 Surface Water Sampling

Five surface water samples were collected during the April 2018 sampling event from locations: CSW-2, CSW-3, CSW-3A, CSW-4 and CSW-5. Four surface water samples were

collected during the July 2018 sampling event from locations: CSW-3, CSW-3A, CSW-5 and CSW-BKG1. All samples were analyzed for the following: VOCs, Cr⁺⁶, and filtered (dissolved) metals Target Analyte List (TAL). Surface water sampling locations can be found on **Figure 2**. Surface water sampling records are provided in **Appendix B**. Surface water sampling results are summarized in **Table 3D**.

2.3 SUMMARY OF ANALYTICAL RESULTS

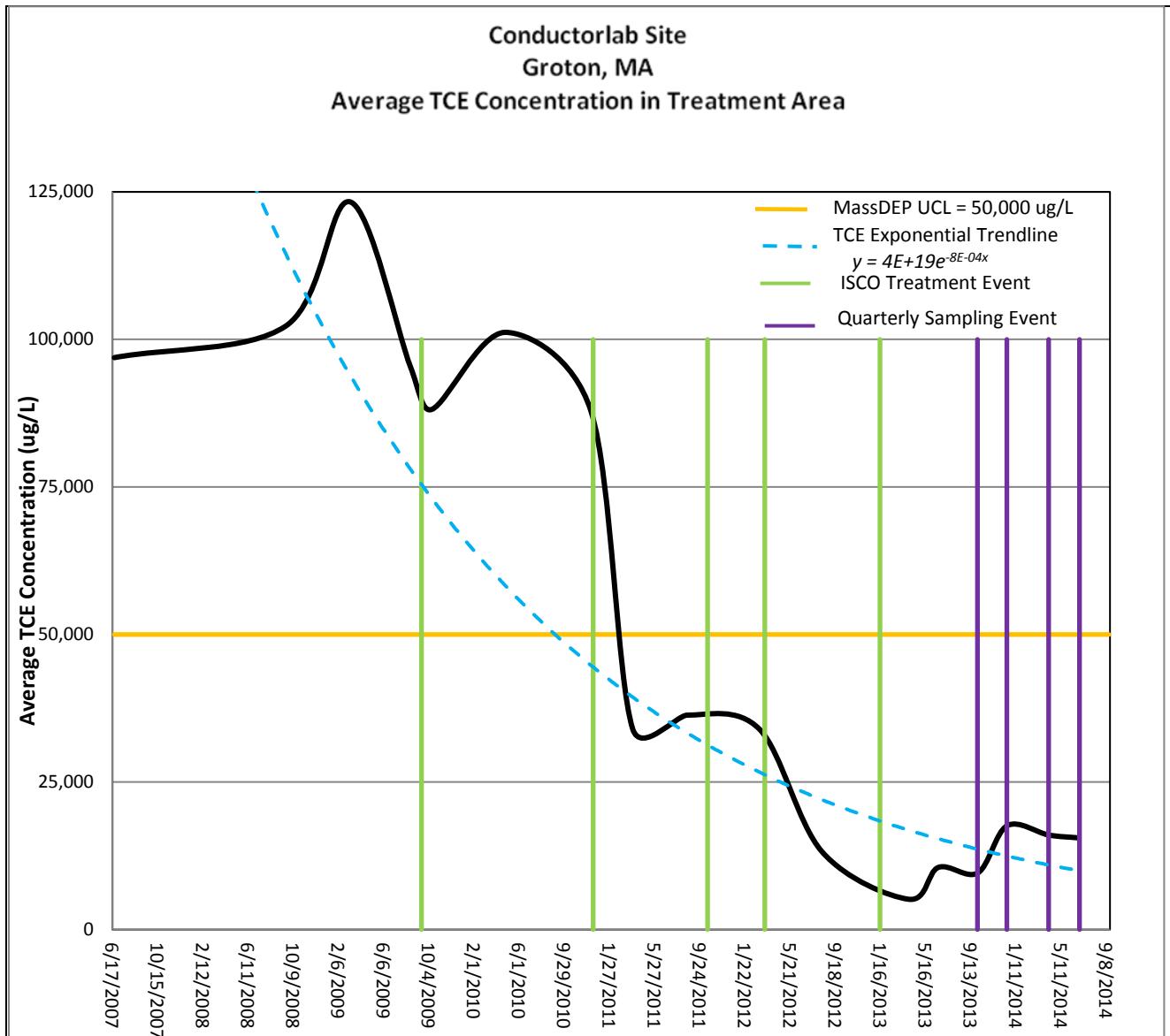
Groundwater and surface water analytical results are provided in **Appendix C** and summarized in **Tables 3A, 3B, 3C, and 3D**. The tables also present results from prior sampling events conducted from 2016 through 2018 for comparison.

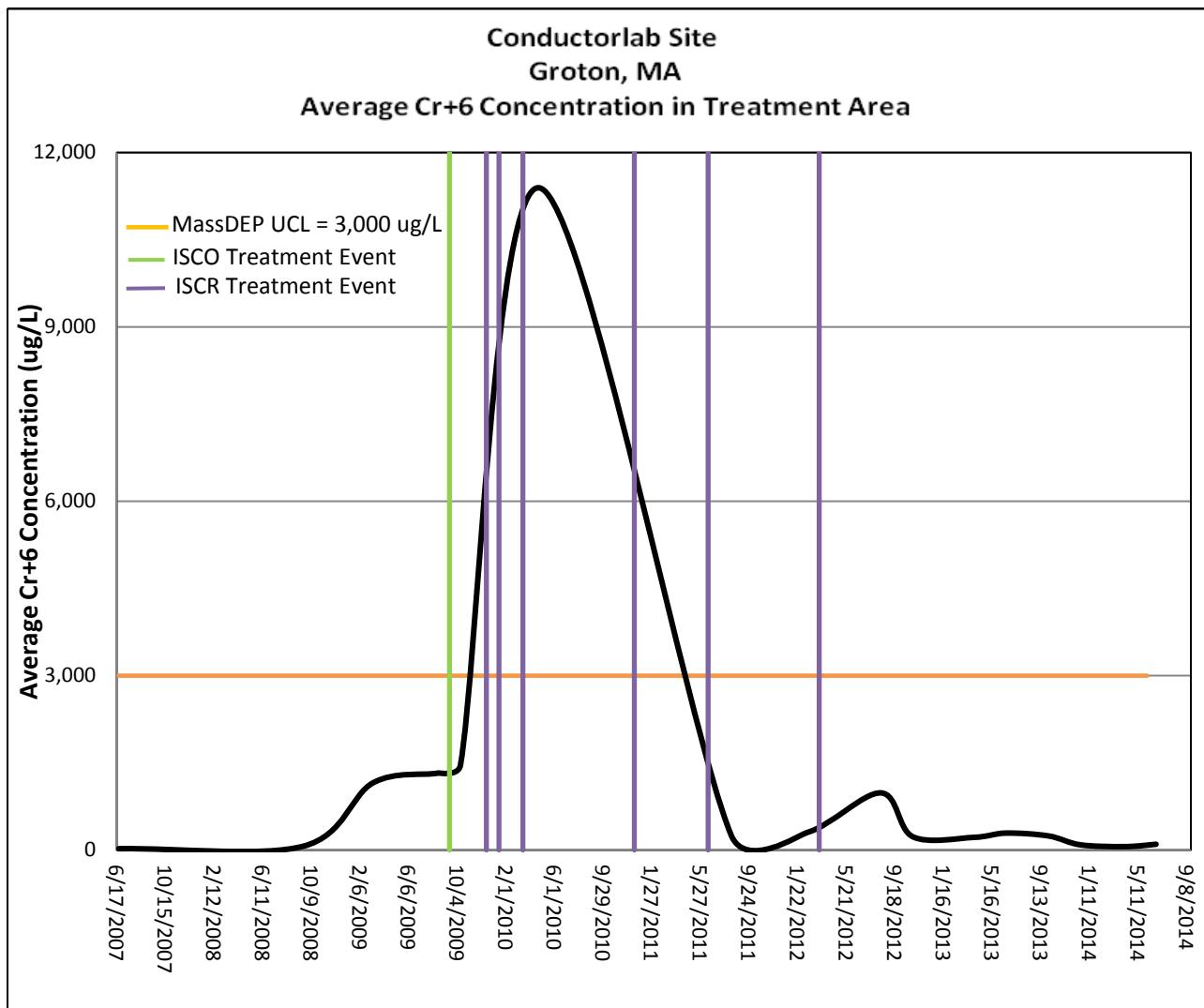
2.3.1 Site Contaminant History

TCE and Cr⁺⁶ have historically been identified as the two constituents of concern (COCs) at the Site. The 2016 through 2018 analysis for TCE and degradation products *cis*-1,2-dichloroethene (DCE), and vinyl chloride (VC) concentrations are summarized on **Figures 5A and 5B**. Cr and Cr⁺⁶ results are summarized on **Figures 6A and 6B** for on-property monitoring wells and off-property monitoring wells (including surface water), respectively.

To further assist in analyzing the groundwater and surface water data, TCE and Cr⁺⁶ trend graphs are provided for each location displaying data since the initiation of the monitoring program. These data graphs for TCE and Cr⁺⁶ concentrations are summarized in **Appendix D**.

The following two trend graphs represent average TCE and Cr⁺⁶ concentrations during and after the ISCO and ISCR remediation events from fifteen bedrock monitoring wells. The results are based on the ISCO treatment initiated in September 2009 and continued through June 2014. Overall, results show a significant reduction, below the UCL, in the average TCE concentrations following treatment. The Cr⁺⁶ concentrations underwent an increase following the initial treatment for TCE, but following a series of ISCR treatments, the Cr⁺⁶ concentrations decreased to levels below GW-3 standards. The ISCO and ISCR treatment events are summarized on the following Figures.





2.3.2 On-Property Monitoring Wells

As displayed on **Figure 5A** and summarized in **Table 3A**, average TCE, DCE, and VC concentrations detected in groundwater are below GW-3 standards. **Table 3B** shows average TCE, DCE, and VC concentrations in bedrock groundwater after the ISCO treatments, which are below the MassDEP UCL standards.

As shown on **Figure 6A**, average Cr and Cr⁺⁶ concentrations in groundwater are generally similar to historic results and remain below their respective UCLs and GW-3 standards. As noted in this report, and portrayed on the Cr⁺⁶ graphs in **Appendix D**, the application of sodium meta-bisulfite (SMBS) has reduced Cr⁺⁶ concentrations at several locations. The variability of Cr⁺⁶ from monitoring well (CLW-8) as well as results from surface water samples led to a focused ISCR treatment using a new compound calcium polysulfide (CAPS). The CAPS formula has been used successfully at other sites in the northeast; however, it provided little positive impact at Conductorlab. An additional source Cr⁺⁶ investigation and ecological risk assessment of the Unnamed Brook was the focus of investigations in May and July 2018, respectively.

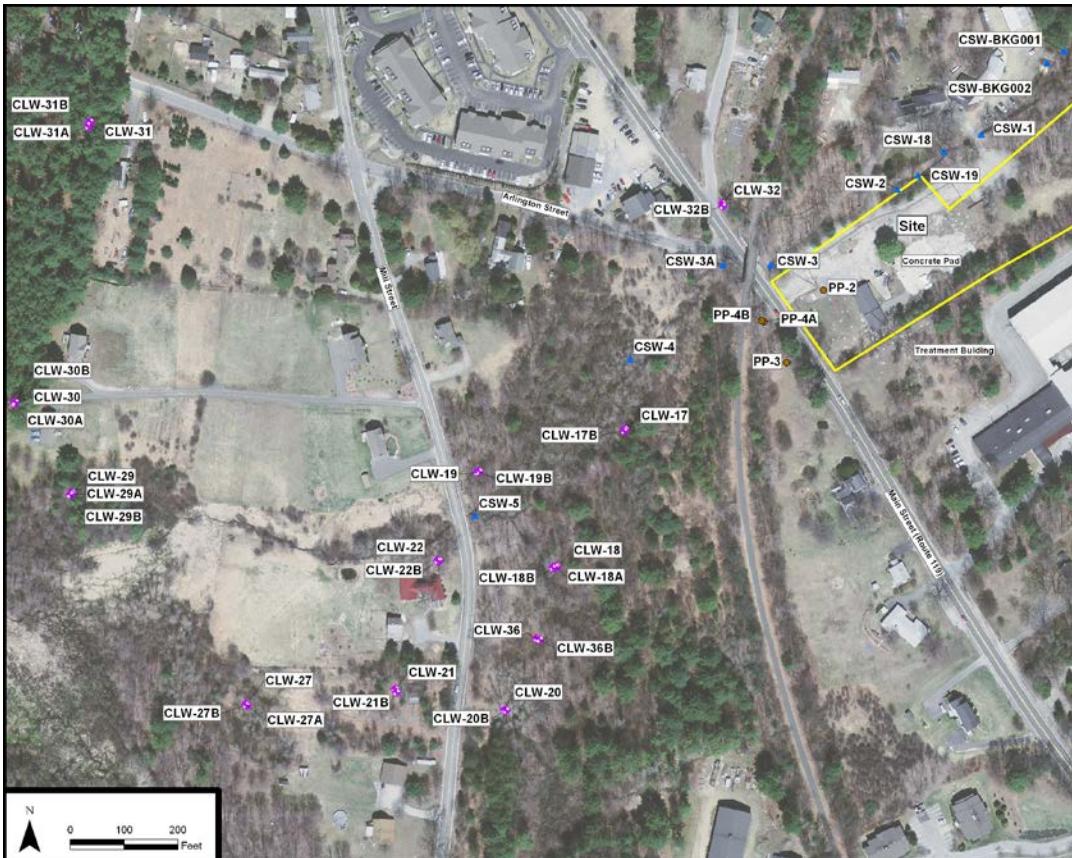
A review of the trend graphs presented in **Appendix D** for on-property wells indicates that concentrations of TCE and Cr⁺⁶ are within the range of historical concentrations; with fluctuations at locations: CLW-5B, CLW-16B, and OSW-1. All monitoring wells are below the applicable GW-3 standards for VOCs with the exception of CLW-16B; and below the GW-3 standard for Cr and/or Cr⁺⁶ with the exception of: CIW-1B, CLW-8, and OSW-2B.

2.3.3 Off-Property Monitoring Wells

Off-property VOC, Cr, and Cr⁺⁶ concentrations in groundwater are shown on **Figures 5B and 6B**. Average concentrations of TCE, DCE, and VC in groundwater are below GW-3 standards and are consistent with historic results (see **Table 3C**).

A review of the trend graphs presented in **Appendix D** for off-property wells indicates decreasing fluctuations of TCE and Cr⁺⁶ concentrations at locations: PP-3, PP-4A, and PP-4B. All monitoring wells remain below applicable GW-3 standards, with the exception of PP-3.

Off-Property Monitoring Wells and Surface Water Locations



Note: Monitoring Wells CLW-27, CLW-27A, CLW-27B, CLW-21, and CLW-21B have been decommissioned. Monitoring wells CLW-31, CLW-31A, and CLW-31B have been closed.

2.3.4 Surface Water

Surface water samples are collected at locations identified as CSW on the above Figure. Samples are collected and submitted on a quarterly basis for VOCs and several metals including: Cr, Cr⁺⁶, and Cu. VOCs, Cr, Cr⁺⁶, and Cu concentrations in surface water are summarized on **Figures 5B and 6B**. As summarized in **Table 3D**, DCE and VC concentrations are not detected in surface water. TCE continues to be detected in surface water at concentrations similar to previous sampling events. As shown on **Figure 6B**, Cr and Cr⁺⁶ concentrations are detected in surface water above the AWQC at four locations. A review of contaminant trend graphs presented in **Appendix D** for surface water indicates that detections of TCE and Cr⁺⁶ concentrations at locations CSW-2, CSW-4, and CSW-5 are within the historical range of concentrations; however, concentrations at locations CSW-3 and CSW-3A have increased slightly.

3.0 SUPPLEMENTAL ACTIVITIES

Additional activities were performed at the Conductorlab Site during January 2018 through July 2018. These activities are presented below.

3.1 SOURCE AREA INVESTIGATION

In May 2018, Wood E&IS, completed an additional focused Cr and Cr⁺⁶ investigation in the area proximate to CLW-8 and the Unnamed Brook. After review of the data, it was determined that residual source materials may be impacting the surface water of Unnamed Brook. As a result, a bench scale test for treatability of residual Cr⁺⁶ sources is proposed in September 2018 to assess remediation options for this condition.

3.2 ECOLOGICAL RISK ASSESSMENT INVESTIGATION

In July 2018, as part of the ecological risk assessment, Wood E&IS collected surface water, sediment, and porewater samples from four locations along the Unnamed Brook (CSW-3, CSW-3A, CSW-5) and a background location (CSW-BKG1) upstream of the Site. Locations CSW-4 and CSW-2 were dry and were not able to be sampled. Samples were collected and submitted for select lab analysis, including: VOCs, select metals (Cr and Cr⁺⁶), hardness, SVOCs, pesticides, total organic carbon, and porewater. Analytical results are pending and will be summarized in the next semiannual report.

3.3 GROUNDWATER AND SURFACE WATER MONITORING

Wood E&IS continues to monitor groundwater and surface water until a Permanent Solution is achieved. Additional sampling events are planned for September and December 2018.

4.0 FUTURE ACTIVITIES

The goal of the ISCO and ISCR treatments applied to the Site was to reduce average concentrations of VOCs and Cr⁺⁶ to below their respective UCLs, and thereby achieve a Permanent Solution. The remediation via *in-situ* technologies was conducted in accordance with the Phase IV RIP and amended Phase IV RIP, submitted to the MassDEP in September 2009 and November 2015, respectively.

Activities planned at the Site for the remainder of 2018 include: Review of groundwater and surface water results supporting the forthcoming Permanent Solution; Completing a Bench Scale Test for Cr and Cr⁺⁶ source investigation; Potential implementation of remediation contingent on the results of the Bench Test; Review of data for a Stage II Ecological Risk Assessment; Review of data for a Site-specific risk-based closure under a Method 3 Risk Characterization; and, Submission of a Permanent Solution.

5.0 SUMMARY OF FINDINGS

This report presents the OM&M findings for the Conductorlab Site in Groton, Massachusetts (Release Tracking Number [RTN] 2-00053), for the period of January 2018 through June 2018. This report has been prepared by Wood E&IS on behalf of Honeywell pursuant to 310 CMR 40.0897(2) and in accordance with 310 CMR 40.0892. The following are the findings of the report:

- As displayed on **Figures 5A and 6A**, results from on-property groundwater sampled during this monitoring period indicate average VOC, Cr, and Cr⁺⁶ concentrations are below GW-3 standards.
- As shown on **Figures 5B and 6B**, results from off-property groundwater indicate average VOC, Cr, and Cr⁺⁶ concentrations are below GW-3 standards.
- Surface water samples collected during January 2018 through July 2018 display VOC concentrations similar to historical results and Cr⁺⁶ concentrations above their applicable AWQC. Honeywell and Wood E&IS are completing an Ecological Risk Assessment in the Unnamed Brook; and a Bench Scale Test to potentially treat Cr and Cr⁺⁶ source areas impacting surface waters.
- Groundwater contour figures developed from the April 6, 2018 groundwater elevation survey infer general (shallow and deep) groundwater flow direction to the west.
- Based on bedrock groundwater results, comprised of four quarterly rounds of groundwater sampling following treatment, the data have confirmed that ISCO treatments have achieved and maintained average TCE concentrations below the UCL. The four quarterly sampling rounds are summarized in **Table 3B**.
- The Site groundwater and surface water will continue to be monitored and reviewed until a Site-specific risk-based closure under a Method 3 Risk Characterization and Permanent Solution is submitted.

6.0 REFERENCES

- Amec Environment & Infrastructure, Inc. (Amec), June, 2009. Phase III Remedial Action Plan Amendment, Conductorlab Site (RTN 2-00053), Groton, Massachusetts.
- Amec, August, 2009. Phase IV Remedial Implementation Plan Amendment, Conductorlab Site (RTN 2-00053), Groton, Massachusetts.
- Amec Foster Wheeler, November, 2015. Phase IV Remedial Implementation Plan Amendment, Conductorlab Site (RTN 2-00053), Groton, Massachusetts
- Earth Tech, February, 1995. Phase IV Remedy Implementation Plan, Appendix E, Operation, Maintenance, and Monitoring Plan (Volume I - IV).
- Massachusetts Department of Environmental Protection (MassDEP), December 14, 2007. 310 CMR 40.0000, Massachusetts Contingency Plan (MCP). Bureau of Waste Site Cleanup. Boston, Massachusetts.
- Shaw Engineering, Inc. (Shaw), April, 2006. Pilot Study Work Plan, Conductorlab Site, Groton, Massachusetts.

TABLES

Table 1

Sampling and Analysis Schedule (January 2018 – July 2018)
Conductorlab Site
Groton, Massachusetts

Sample Location	On-Property Monitoring Well	Off-Property Monitoring Well	Off-Property Surface Water	Semi-Annual April and July - 2018	SW April 2018	SW July 2018	VOCs (SW-846 8260C)	Hexavalent Chromium (SW-846 7196A)	Select Metals (SW-846 6000/7000 Series)	Other	Temp, pH, Sp. Conductivity, DO, ORP, and Turbidity
OSW-1B	X			X			X	X	Total Cr		X
CIW-1B	X			X			X	X	Total Cr		X
CLW-16B	X			X ¹			X	X	Total Cr		X
CLW-5A	X			X			X	X	Total Cr		X
CLW-5B	X			X			X	X	Total Cr		X
CLW-8	X			X			X	X	Total Cr		X
DMW-A	X			X			X	X	Total Cr		X
DMW-B	X			X			X	X	Total Cr		X
OSW-1A	X			X			X	X	Total Cr		X
OSW-2B	X			X			X	X	Total Cr		X
OSW-3A	X			X			X	X	Total Cr		X
OSW-3B	X			X			X	X	Total Cr		X
OSW-4I	X			X			X	X	Total Cr		X
OSW-7A	X			X			X	X	Total Cr		X
PP-2	X			X			X	X	Total Cr		X
PP-3	X			X			X	X	Total Cr		X
PP-4A	X			X			X	X	Total Cr		X
PP-4B	X			X			X	X	Total Cr		X
CLW-17	X			X			X	X	Total Cr		X
CLW-17B	X			X			X	X	Total Cr		X
CLW-19	X			X			X	X	Total Cr		X
CLW-19B	X			X ¹			X	X	Total Cr		X
CLW-20	X			X			X	X	Total Cr		X
CLW-20B	X			X			X	X	Total Cr		X
CLW-22	X			X			X	X	Total Cr		X
CLW-22B	X			X			X	X	Total Cr		X
CSWBKG001			X		X			X	Total Cr/Dissolved TAL Metals		X
CSW-2			X	X	X ²		X	X	Dissolved TAL Metals	Dissolved Cr	X
CSW-3			X	X ¹	X ²	X ²	X	X	Dissolved TAL Metals	Dissolved Cr	X
CSW-3A			X	X	X ²	X ²	X	X	Dissolved TAL Metals	Dissolved Cr	X
CSW-4			X	X	X ²		X	X	Dissolved TAL Metals	Dissolved Cr	X
CSW-5			X	X	X ²	X ²	X	X	Dissolved TAL Metals	Dissolved Cr	X

Notes:

[1] Duplicate sample collected.

[2] Samples for April and July were sampled for Dissolved Chromium.

Prepared by / Date: HTS 08/08/2018
 Checked by / Date: CTM 08/09/2018

Table 2
Groundwater Elevation Measurements
(April 6, 2018)
Conductorlab Site
Groton, Massachusetts

Well ID	Type of Well ⁽¹⁾	Location		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
		On-Property	Off-Property								
CIW-1B	B	X		278.72	278.76	278.53		X	4.92	273.61	
CLW-1	S/O	X		287.38	288.97	288.56		X	7.76	280.80	
CLW-1B	B	X		287.57	288.94	288.66		X	7.92	280.74	
CLW-3B	B	X		299.25	299.32	298.99		X	14.20	284.79	
CLW-5A	S/O	X		274.84	275.28	274.92		X	0.32	274.60	
CLW-5B	B	X		274.81	275.22	274.34		X	NA	--	Flooded
CLW-6	S/O	X		271.71	271.89	271.46		X	0.88	270.58	
CLW-7	S/O	X		267.15	267.13	266.81		X	1.74	265.07	
CLW-7B	B	X		267.37	267.35	267.11		X	2.78	264.33	
CLW-8	S/O	X		268.75	270.31	270.25		X	6.96	263.29	
CLW-9	S/O	X		267.92	267.95	267.21		X	2.79	264.42	
CLW-9B	B	X		267.99	268.01	267.53		X	NA	--	Destroyed
CLW-11	S/O	X		273.44	273.47	273.16		X	3.55	269.61	
CLW-11B	B	X		273.75	273.77	273.42		X	2.93	270.49	
CLW-16	S/O	X		278.82	280.80	280.77		X	5.56	275.21	
CLW-16AR	S/O	X		278.59	279.11	279.11	X		3.97	275.14	
CLW-16B	B	X		278.47	281.50	281.27		X	6.74	274.53	
CLW-16C	S/O	X		278.92	281.72	281.34		X	6.18	275.16	
CLW-16D	S/O	X		278.73	282.23	281.20		X	6.16	275.04	
CLW-16E	S/O	X		278.68	281.56	281.27		X	6.65	274.62	
CPZ-1	S/O	X		280.18	280.80	280.66		X	3.03	277.63	
CPZ-1B	B	X		280.30	280.37	280.37	X		3.19	277.18	
CPZ-1C	S/O	X		280.02	280.53	280.53	X		3.31	277.22	
CPZ-2C	S/O	X		267.88	267.95	267.46		X	4.50	262.96	
DMW-A	S/O	X		267.23	267.22	266.84		X	3.09	263.75	
DMW-B	B	X		266.80	266.87	266.66		X	3.52	263.14	
DN-2	B	X		278.83	281.52	281.31		X	5.78	275.53	
DN-3	B	X		278.87	281.79	281.55		X	6.94	274.61	
GZA-1	S/O	X		275.62	275.62	275.40		X	6.08	269.32	
GZA-3	S/O	X		276.73	276.78	276.59		X	NA	--	NM, No cover cap
GZA-6	S/O	X		274.49	----	274.35		X	3.40	270.95	
LF-1	S/O	X		284.71	287.13	287.04		X	7.19	279.85	
LF-2	S/O	X		287.64	290.37	290.23		X	7.99	282.24	
LF-3	S/O	X		292.75	295.25	295.25	X		12.22	283.03	
MW-2	S/O	X		280.59	281.00	280.90		X	0.95	279.95	
OSW-1A	S/O	X		278.16	278.87	278.10		X	2.37	275.73	
OSW-1B	B	X		278.14	278.70	277.61		X	2.20	275.41	
OSW-2	S/O	X		279.29	282.36	281.48		X	3.35	278.13	
OSW-2B	B	X		279.38	281.97	280.61		X	3.19	277.42	
OSW-2C	S/O	X		278.53	278.69	278.19		X	2.58	275.61	
OSW-3A	S/O	X		278.21	278.94	278.94	X		5.26	273.68	
OSW-3B	B	X		278.00	279.35	279.12		X	5.77	273.35	
OSW-4	S/O	X		273.65	273.76	272.90		X	1.34	271.56	
OSW-4B	B	X		273.77	273.87	273.09		X	2.55	270.54	
OSW-4I	I	X		273.67	273.81	273.17		X	2.47	270.70	
OSW-5	S/O	X		273.98	274.07	273.40		X	5.99	267.41	
OSW-5B	B	X		273.82	273.92	273.49		X	6.58	266.91	
OSW-5I	S/O	X		273.93	274.02	273.38		X	6.60	266.78	
OSW-5C	S/O	X		274.05	274.08	273.19		X	5.57	267.62	
OSW-5D	I	X		274.10	274.22	273.38		X	5.26	268.12	
OSW-5E	S/O	X		274.05	274.11	274.11	X		6.65	267.46	

Table 2
Groundwater Elevation Measurements
(April 6, 2018)
Conductorlab Site
Groton, Massachusetts

Well ID	Type of Well ⁽¹⁾	Location		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
		On-Property	Off-Property								
OSW-6	S/O	X		279.48	282.05	281.91		X	5.82	276.09	
OSW-6B	B	X		279.31	281.99	281.80		X	4.04	277.76	
OSW-7A	S/O	X		275.51	275.80	275.41		X	5.69	269.72	
OSW-7B	B	X		275.42	275.75	275.38		X	5.18	270.20	
OSW-8A	S/O	X		278.49	278.51	277.90		X	4.33	273.57	
OSW-8B	B	X		278.40	278.65	278.47		X	4.94	273.53	
OSW-8D	S/O	X		278.49	278.54	278.21		X	3.58	274.63	
OSW-8E	S/O	X		278.73	278.72	278.05		X	2.49	275.56	
PTA-IW-1	S/O	X		275.82	NS	275.25		X	2.41	272.84	
PTA-IW-2	S/O	X		275.86	NS	275.45		X	2.56	272.89	
PTA-MW-1D	S/O	X		273.01	NS	272.63		X	1.80	270.83	
PTA-MW-1S	S/O	X		273.28	NS	272.82		X	1.32	271.50	
PTA-MW-2	S/O	X		270.36	NS	270.11		X	3.33	266.78	
PTA-MW-3	S/O	X		271.70	NS	271.15		X	4.13	267.02	
PTA-MW-4	S/O	X		271.30	NS	271.06		X	NA	--	Damaged
PTA-MW-5	S/O	X		266.19	266.18	265.40		X	1.11	264.29	
PTA-MW-5BR	B	X		266.03	266.01	265.35		X	0.90	264.45	
PTB-IW-1	S/O	X		274.84	NS	274.51		X	1.05	273.46	
PTB-IW-2	S/O	X		274.93	NS	274.64		X	1.16	273.48	
PTB-MW-1BR	B	X		274.51	274.50	274.02		X	4.02	270.00	
PTB-MW-1D	S/O	X		274.65	NS	274.17		X	2.68	271.49	
PTB-MW-1S	S/O	X		274.55	NS	274.03		X	3.41	270.62	
PTB-MW-2S	S/O	X		274.95	NS	274.66		X	2.46	272.20	
PTB-MW-2D	S/O	X		274.90	NS	274.42		X	3.47	270.95	
PTB-MW-3	S/O	X		274.54	NS	274.34		X	5.91	268.43	
PTB-MW-4	S/O	X		275.42	NS	274.91		X	5.93	268.98	
PTB-MW-5	S/O	X		273.83	NS	273.34		X	NA	--	Flooded
PTC-IW-1	B	X		278.90	NS	278.37		X	2.29	276.08	
PTC-IW-2	B	X		278.78	NS	278.47		X	1.90	276.57	
PTC-MW-1	B	X		278.88	NS	278.31		X	3.82	274.49	
PTC-MW-2R	B	X		NS	278.10	277.83		X	3.26	274.57	
PTC-MW-3	B	X		277.70	NS	277.08		X	5.93	271.15	
PTC-MW-4	B	X		278.27	NS	277.95		X	5.30	272.65	
PTC-MW-5	B	X		276.85	NS	276.19		X	6.19	270.00	
PTC-MW-6	B	X		276.78	NS	276.05		X	4.76	271.29	
PTC-MW-7	B	X		NS	278.17	277.78		X	5.78	272.00	
PP-1	S/O	X		271.86	274.62	274.08		X	7.42	266.66	
PP-2	S/O	X		272.37	275.15	274.96		X	4.70	270.26	
PP-3	S/O	X		279.01	281.22	281.04		X	11.95	269.09	
PP-4	S/O	X		269.36	272.05	271.85		X	9.78	262.07	
PP-4B	B	X		269.04	271.50	271.35		X	9.88	261.47	
CLW-17	S/O	X		245.41	249.74	249.52		X	5.32	244.20	
CLW-17B	B	X		245.58	248.34	248.19		X	4.30	243.89	
CLW-18	S/O	X		240.27	243.22	243.02		X	2.98	240.04	
CLW-18A	S/O	X		239.99	242.92	242.69		X	0.00	242.69	Top of PVC
CLW-18B	B	X		240.10	242.78	242.39		X	0.00	242.39	Top of PVC
CLW-19	S/O	X		240.50	244.51	244.35		X	3.70	240.65	
CLW-19B	B	X		240.86	244.43	243.96		X	2.53	241.43	
CLW-20	S/O	X		239.94	242.91	242.37		X	4.15	238.22	
CLW-20B	B	X		239.54	242.67	242.47		X	3.76	238.71	
CLW-21	S/O	X		243.80	247.13	247.13	X		NA	--	Closed

Table 2
Groundwater Elevation Measurements
(April 6, 2018)
Conductorlab Site
Groton, Massachusetts

Well ID	Type of Well ⁽¹⁾	Location		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
		On-Property	Off-Property								
CLW-21B	B	X		244.21	247.13	246.92		X	NA	--	Closed
CLW-22	S/O	X		243.70	243.91	243.67		X	6.93	236.74	
CLW-22B	B	X		243.76	243.90	243.70		X	7.01	236.69	
CLW-27	S/O	X		223.97	227.04	226.99		X	NA	--	Closed
CLW-27A	S/O	X		224.09	226.76	226.76	X		NA	--	Closed
CLW-27B	B	X		223.97	226.62	226.51		X	NA	--	Closed
CLW-29	S/O	X		217.76	218.02	217.86		X	0.38	217.48	
CLW-29A	S/O	X		217.65	218.02	217.92		X	0.60	217.32	
CLW-29B	B	X		217.53	217.99	217.81		X	0.62	217.19	
CLW-30	S/O	X		217.31	217.74	217.56		X	2.26	215.30	
CLW-30A	S/O	X		217.26	217.70	217.45		X	2.48	214.97	
CLW-30B	B	X		217.26	217.73	217.43		X	2.61	214.82	
CLW-31	S/O	X		216.60	218.97	218.84		X	NA	--	Destroyed
CLW-31A	S/O	X		216.67	219.70	219.19		X	NA	--	Destroyed
CLW-31B	B	X		216.91	219.56	219.03		X	NA	--	Destroyed
CLW-32	S/O	X		261.76	263.81	263.48		X	6.01	257.47	
CLW-32B	B	X		261.91	263.80	263.68		X	6.55	257.13	
CLW-36	S/O	X		240.68	243.49	243.16		X	3.05	240.11	
CLW-36B	B	X		240.56	243.57	243.29		X	2.45	240.84	

Prepared by: HTS 08/07/18

Checked by: CTM 08/09/18

Notes:

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 3A
Summary of Compounds Detected in Groundwater
On-Property Wells (September 2016 - June 2018)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards ¹		CIW-1B Oct-16	CIW-1B Apr-17	CIW-1B Sep-17	CIW-1B Apr-18	CLW-5A Apr-17	CLW-5A Sep-17	CLW-5A Apr-18	CLW-5B Oct-16	CLW-5B Apr-17	CLW-5B Sep-17	CLW-5B Apr-18	CLW-8 Oct-16	CLW-8 Apr-17	CLW-8 Sep-17	CLW-8 Apr-18	CLW-16B Oct-16	CLW-16B Apr-17	CLW-16B Sep-17	CLW-16B Apr-18	CLW-16B DUP Apr-18	DMW-A Oct-16	DMW-A Apr-17	
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)																							
Chlorinated Ethenes (ug/L)																									
Tetrachloroethene	30,000	100,000	10 U	18	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	0.63 J	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	130 U	130 U	1.0 U	1.0 U
Trichloroethene (TCE)	5,000	50,000	370	1,600	410	1,000	0.75 J	1,300	1.5	51	100	140	250	40	16	32	31	5,600	5,000	12,000	6,700	6,800	4.7	18	
cis-1,2-Dichloroethene	50,000	100,000	140	240	140	260	1.0 U	550	1.0 U	36	85	110	170	9.3	4.3	5.6	9.2	1,300	1,200	3,000	1,800	1,800	36	41	
trans-1,2-Dichloroethene	50,000	100,000	16	18	18 J	37	1.0 U	3.7	1.0 U	1.5	4.5	7.5	10	1.0 U	1.0 U	1.0 U	1.0 U	100 U	93 J	350	270	240	1.0 U	1.0 U	
1,1-Dichloroethene	30,000	100,000	10 U	3.3 J	20 U	20 U	1.0 U	4.9	1.0 U	1.0 U	1.1	1.9 J	3.9 J	1.0 U	1.0 U	1.0 U	0.43 J	100 U	100 U	100 U	130 U	130 U	0.53 J	0.90 J	
Vinyl chloride	50,000	100,000	78	110	80	92	1.0 U	130	1.0 U	2.4	8.5	28	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	250	360	1,200	590	540	1.1	2.3	
Chlorinated Ethanes (ug/L)																									
Chloroethane	NL	NL	20 U	4.0 J	40 U	40 U	2.0 U	1.4 J	2.0 U	0.36 J	4.5	6.9	9.3 J	2.0 U	2.0 U	2.0 U	2.0 U	200 U	200 U	200 U	250 U	250 U	2.0 U	2.0 U	
1,1,2,2-Tetrachloroethane	50,000	100,000	5.0 U	5.0 U	10 U	10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	2.5 U	0.50 U	0.50 U	0.50 U	0.50 U	50 U	50 U	50 U	63 U	63 U	0.50 U	0.50 U	
1,1,1-Trichloroethane	20,000	100,000	10 U	10 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	130 U	130 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	50,000	100,000	10 U	10 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	130 U	130 U	1.0 U	1.0 U	
1,1-Dichloroethane	20,000	100,000	10 U	10 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	130 U	130 U	1.0 U	1.0 U	
1,2-Dichloroethane	20,000	100,000	10 U	10 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	130 U	130 U	1.0 U	1.0 U	
Other VOCs (ug/L)																									
Benzene	10,000	100,000	10 U	10 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	130 U	130 U	1.0 U	1.0 U	
Carbon disulfide	NL	NL	100 U	100 U	200 U	200 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	50 U	10 U	10 U	10 U	1,000 U	1,000 U	1,000 U	1,300 U	1,300 U	10 U	10 U	
Chlorobenzene	1,000	10,000	10 U	10 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	130 U	130 U	1.0 U	1.0 U	
Chloroform	20,000	10,000	10 U	10 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	130 U	130 U	1.0 U	1.0 U	
Chloromethane	NL	NL	20 U	20 U	40 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	10 U	2.0 U	2.0 U	2.0 U	200 U	200 U	200 U	250 U	250 U	2.0 U	2.0 U	
Ethylbenzene	5,000	100,000	10 U	10 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	130 U	130 U	1.0 U	1.0 U	
Methylene chloride	50,000	100,000	10 U	10 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	130 U	130 U	1.0 U	1.0 U	
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	10 U	10 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	130 U	130 U	1.0 U	1.0 U	
Toluene	40,000	100,000	10 U	10 U	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	100 U	100 U	100 U	130 U	130 U	1.0 U	1.0 U	
Xylenes (Total)	5,000	100,000	30 U	30 U	60 U	60 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	6.0 U	15 U	3.0 U	3.0 U	3.0 U	300 U	300 U	300 U	280 U	280 U	3.0 U	3.0 U	
Total Metals (ug/L)																									
Chromium (Cr)	300	3,000	750	230	470	990	110	82	96	69	9.0	7.0	30	1,400	630	1,100	520	200	49	40	18	19	5.0 U	1.1 J	
Chromium (Hexavalent)	300	3,000	680	5 U	10 U	10 U	110	53	91	64	5.2 J	14	10 U	1,400	480	970	490 J	5 U	5 U	6.8 J	10 U	10 U	5 UJ	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; NJ = indicates standard not listed in 310 CMR 40.0000.

U = sample was analyzed for but not detected above the indicated detection limit; I = value was estimated.

10 - Indicates value exceeds current GW-3 Standard.

10 Indicates value exceeds current UCI

Table 3A
Summary of Compounds Detected in Groundwater
On-Property Wells (September 2016 - June 2018)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards ¹																								
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)	DMW-A Sep-17	DMW-A Apr-18	DMW-B Oct-16	DMW-B Apr-17	DMW-B Sep-17	DMW-B Apr-18	OSW-1A Oct-16	OSW-1A Apr-17	OSW-1A Sep-17	OSW-1A Apr-18	OSW-1B Oct-16	OSW-1B Apr-17	OSW-1B Sep-17	OSW-1B Apr-18	OSW-2B Oct-16	OSW-2B Apr-17	OSW-2B Sep-17	OSW-2B Apr-18	OSW-3A Apr-17	OSW-3A Sep-17	OSW-3A Apr-18	OSW-3B Oct-16	OSW-3B Apr-17
Chlorinated Ethenes (ug/L)																									
Tetrachloroethene	30,000	100,000	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	100 U	0.39 J	50 U	50 U	50 U	40 U	40 U	40 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	
Trichloroethene (TCE)	5,000	50,000	20	23	14	93	4.6	86	4.1	3.5	6.3	3.0	2,300	3,400	3,300	3,500	10,000	1,800	1,200	1,800	24	29	32	200	590
cis-1,2-Dichloroethene	50,000	100,000	62	48	69	150	30	170	1.0 U	1.0 U	1.0 U	1.0 U	280	260	490	280	680	81	100	110	1.2	1.8	1.7	110	200
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	1.0 U	9.8	51	4.5	54	1.0 U	1.0 U	1.0 U	1.0 U	100 U	7.5	50 U	50 U	740	40 U	280	43	1.0 U	1.0 U	1.0 U	4.0 U	1.3
1,1-Dichloroethene	30,000	100,000	1.1	1.2	2.0 U	1.0	1.0 U	1.3	1.0 U	1.0 U	1.0 U	1.0 U	100 U	1.3	50 U	50 U	50 U	40 U	40 U	40 U	1.0 U	1.0 U	1.0 U	4.0 U	1.5
Vinyl chloride	50,000	100,000	2.7	4.4	5.6	19	0.93 J	14	1.0 U	1.0 U	1.0 U	100 U	34	47 J	50 U	150	40 U	40 U	40 U	1.0 U	1.0 U	1.0 U	4.0 U	14	
Chlorinated Ethanes (ug/L)																									
Chloroethane	NL	NL	2.0 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	200 U	0.61 J	100 U	100 U	100 U	80 U	80 U	80 U	2.0 U	2.0 U	2.0 U	8.0 U	1.3 J	
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 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	50 U	0.50 U	25 U	25 U	25 U	20 U	20 U	20 U	0.50 U	0.50 U	0.50 U	2.0 U	0.50 U	
1,1,1-Trichloroethane	20,000	100,000	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	100 U	1.0 U	50 U	50 U	50 U	40 U	40 U	40 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	
1,1,2-Trichloroethane	50,000	100,000	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	100 U	1.0 U	50 U	50 U	50 U	40 U	40 U	40 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	
1,1-Dichloroethane	20,000	100,000	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	100 U	1.0 U	50 U	50 U	50 U	40 U	40 U	40 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	
1,2-Dichloroethane	20,000	100,000	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	100 U	1.0 U	50 U	50 U	50 U	40 U	40 U	40 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	
Other VOCs (ug/L)																									
Benzene	10,000	100,000	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	100 U	1.0 U	50 U	50 U	50 U	40 U	40 U	40 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	
Carbon disulfide	NL	NL	10 U	10 U	20 U	10 U	0.21 J	10 U	10 U	10 U	10 U	1,000 U	10 U	500 U	500 U	500 U	400 U	400 U	400 U	10 U	10 U	10 U	40 U	10 U	
Chlorobenzene	1,000	10,000	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	100 U	1.0 U	50 U	50 U	50 U	40 U	40 U	40 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	
Chloroform	20,000	10,000	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	100 U	1.0 U	50 U	50 U	50 U	40 U	40 U	40 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	
Chloromethane	NL	NL	2.0 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	200 U	2.0 U	100 U	100 U	100 U	80 U	80 U	80 U	2.0 U	2.0 U	2.0 U	8.0 U	2.0 U	
Ethylbenzene	5,000	100,000	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	100 U	1.0 U	50 U	50 U	50 U	40 U	40 U	40 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	
Methylene chloride	50,000	100,000	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	100 U	1.0 U	50 U	50 U	50 U	40 U	40 U	40 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	
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	1.0 U	1.0 U	1.0 U	100 U	1.0 U	50 U	50 U	50 U	40 U	40 U	40 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	
Toluene	40,000	100,000	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	100 U	1.1	50 U	50 U	50 U	40 U	40 U	40 U	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	
Xylenes (Total)	5,000	100,000	3.0 U	3.0 U	6.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	300 U	3.0 U	150 U	150 U	150 U	120 U	120 U	120 U	3.0 U	3.0 U	3.0 U	12.0 U	3.0 U	
Total Metals (ug/L)																									
Chromium (Cr)	300	3,000	1.9 J	5.0 U	5.0 U	1.2 J	8.6	1.2 J	320	160	220	150	1.7 J	2.6 J	1.1 J	1.4 J	640	1,200	1,600	700	1.1 J	3.5 J	16	6.9	5.0 U
Chromium (Hexavalent)</																									

Table 3A
Summary of Compounds Detected in Groundwater
On-Property Wells (September 2016 - June 2018)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards ¹		OSW-3B Sep-17	OSW-3B Apr-18	OSW-4I Oct-16	OSW-4I Apr-17	OSW-4I DUP Apr-17	OSW-4I Sep-17	OSW-4I Apr-18	OSW-7 Oct-16	OSW-7A Apr-17	OSW-7A Sep-17	OSW-7A DUP Sep-17	OSW-7A Apr-18	PP-2 Oct-16	PP-2 Apr-17	PP-2 Sep-17	PP-2 Apr-18
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)																
<i>Chlorinated Ethenes (ug/L)</i>																		
Tetrachloroethene	30,000	100,000	10 U	4.0 U	8.0 U	8.0 U	1.0 U	8.0 U	8.0 U	0.40 J	1.0 U	10 U	10 U	1.0 U	5.0 U	10 U	10 U	4.0 U
Trichloroethene (TCE)	5,000	50,000	270	160	320	490	550	390	270	19	16	240 J	230 J	19	220	270	360	110
cis-1,2-Dichloroethene	50,000	100,000	130	120	120	170	190	130	110	1.4	1.7	34	33	4.0	170	110	210	53
trans-1,2-Dichloroethene	50,000	100,000	10 U	4.0 U	8.0 U	8.0 U	1.3	8.0 U	8.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U	5.0 U	10 U	10 U	4.0 U
1,1-Dichloroethene	30,000	100,000	10 U	4.0 U	8.0 U	4.2 J	3.3	5.2 J	3.0 J	1.0 U	1.0 U	10 U	10 U	1.0 U	3.3 J	3.8 J	8.8 J	1.3 J
Vinyl chloride	50,000	100,000	12	4.0 U	8.0 U	12	13	8.0 U	9.4	1.0 U	1.0 U	10 UJ	10 UJ	1.0 U	29	19	31	5.6
<i>Chlorinated Ethanes (ug/L)</i>																		
Chloroethane	NL	NL	20 U	8.0 U	16 U	16 U	2.0 U	16 U	16 U	2.0 U	2.0 U	20 U	20 U	2.0 U	10 U	20 U	20 U	8.0 U
1,1,2,2-Tetrachloroethane	50,000	100,000	5.0 U	2.0 U	4.0 U	4.0 U	0.50 U	4.0 U	4.0 U	0.50 U	0.50 U	5.0 U	5.0 U	0.50 U	2.5 U	5.0 U	5.0 U	2.0 U
1,1,1-Trichloroethane	20,000	100,000	10 U	4.0 U	8.0 U	8.0 U	1.0 U	8.0 U	8.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U	5.0 U	10 U	10 U	4.0 U
1,1,2-Trichloroethane	50,000	100,000	10 U	4.0 U	8.0 U	8.0 U	1.0 U	8.0 U	8.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U	5.0 U	10 U	10 U	4.0 U
1,1-Dichloroethane	20,000	100,000	10 U	4.0 U	8.0 U	8.0 U	1.0 U	8.0 U	8.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U	5.0 U	10 U	10 U	4.0 U
1,2-Dichloroethane	20,000	100,000	10 U	4.0 U	8.0 U	8.0 U	1.0 U	8.0 U	8.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U	5.0 U	10 U	10 U	4.0 U
<i>Other VOCs (ug/L)</i>																		
Benzene	10,000	100,000	10 U	4.0 U	8.0 U	8.0 U	1.0 U	8.0 U	8.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U	5.0 U	10 U	10 U	4.0 U
Carbon disulfide	NL	NL	100 U	40 U	80 U	80 U	10 U	80 U	80 U	10 U	10 U	100 U	100 U	10 U	50 U	100 U	100 U	40 U
Chlorobenzene	1,000	10,000	10 U	4.0 U	8.0 U	8.0 U	1.0 U	8.0 U	8.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U	5.0 U	10 U	10 U	4.0 U
Chloroform	20,000	10,000	10 U	4.0 U	8.0 U	8.0 U	1.0 U	8.0 U	8.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U	5.0 U	10 U	10 U	4.0 U
Chloromethane	NL	NL	20 U	8.0 U	16 U	16 U	2.0 U	16 U	16 U	2.0 U	2.0 U	20 U	20 U	2.0 U	10 U	20 U	20 U	8.0 U
Ethylbenzene	5,000	100,000	10 U	4.0 U	8.0 U	8.0 U	1.0 U	8.0 U	8.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U	5.0 U	10 U	10 U	4.0 U
Methylene chloride	50,000	100,000	10 U	4.0 U	3.7 J	8.0 U	1.0 U	8.0 U	8.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U	5.0 U	10 U	10 U	4.0 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	10 U	4.0 U	8.0 U	8.0 U	1.0 U	8.0 U	8.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U	5.0 U	10 U	10 U	4.0 U
Toluene	40,000	100,000	10 U	4.0 U	8.0 U	8.0 U	1.0 U	8.0 U	8.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U	5.0 U	10 U	10 U	4.0 U
Xylenes (Total)	5,000	100,000	30 U	12 U	24.0 U	24 U	3.0 U	24 U	24 U	3.0 U	3.0 U	30 U	30 U	3.0 U	15.0 U	30 U	30 U	12 U
<i>Total Metals (ug/L)</i>																		
Chromium (Cr)	300	3,000	3.5 J	5.0 U	130	150	150	140	100	410	270	560	570	240	30	58	11	170
Chromium (Hexavalent)	300	3,000	10 U	10 U	120	130	140	140	77	440	260	660	600	250 J	150	12	10 U	77

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

Prepared by / Date: HTS 08/07/18

Checked by / Date: CTM 08/09/18

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 3B
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 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
	GW-3 MCP	UCL GW MCP																
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	2500 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				
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	11	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 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; L = 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.

10 - indicates value exceeds current UCL.

Table 3B
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 Apr-13	BIW-2 Jun-13	BIW-2 Oct-13	BIW-2 Dec-13	BIW-2 Apr-14	BIW-2 Jun-14	BIW-4 Aug-11	BIW-4 Jan-12	BIW-4 Feb-12	BIW-4 Mar-12	BIW-4 Aug-12	BIW-4 Apr-13	BIW-4 Jun-13	BIW-4 Oct-13	BIW-4 Dec-13	BIW-4 Apr-14	BIW-4 Jun-14	BIW-5 Aug-11
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)																		
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	400 U	40		

Table 3B
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 Jan-12	BIW-5 Feb-12	BIW-5 Mar-12	BIW-5 Aug-12	BIW-5 Apr-13	BIW-5 Jun-13	BIW-5 Oct-13	BIW-5 Dec-13	BIW-5 Apr-14	BIW-5 Jun-14	BIW-6 Dec-10	BIW-6 Feb-11	BIW-6 Aug-11	BIW-6 Jan-12	BIW-6 Feb-12	BIW-6 Mar-12	BIW-6 Aug-12
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)																	
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	

Table 3B
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 Apr-13	BIW-6 Jun-13	BIW-6 Oct-13	BIW-6 Dec-13	BIW-6 Apr-14	BIW-6 Jun-14	BIW-7 Dec-10	BIW-7 Feb-11	BIW-7 Aug-11	BIW-7 Jan-12	BIW-7 Feb-12	BIW-7 Mar-12	BIW-7 Aug-12	BIW-7 Apr-13	BIW-7 Jun-13	BIW-7 Oct-13
	GW-3 MCP	UCL GW MCP																
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	8,000 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	800 U	100 U	4.0 U	100 U	20 U	100 U	50 U	100 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	1,600 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 after February 2008 have been compared with the applicable groundwater standards listed in 310 CMR 40.0974(2) Table 1.

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

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

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

Table 3B
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 Dec-13	BIW-7 Apr-14	BIW-7 Jun-14	BIW-14 Dec-10	BIW-14 Feb-11	BIW-14 Aug-11	BIW-14 Jan-12	BIW-14 Feb-12	BIW-14 Mar-12	BIW-14 Aug-12	BIW-14 Apr-13	BIW-14 Jun-13	BIW-14 Oct-13	BIW-14 Dec-13	BIW-14 Apr-14	BIW-14 Jun-14	BIW-14 Apr-14	BIW-15 Dec-10	BIW-15 Feb-11		
	GW-3 MCP	UCL GW MCP																					
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	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	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	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	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	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	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	400 U	800 U	800 U	2,000 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	40 U	80 U	80 U	200 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	40 U	80 U	80 U	200 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	2,000 UJ	4,000 U	4,000 U	10,000 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	40 U	80 U	80 U	200 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	40 U	80 U	80 U	200 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	20,000 UJ	2,000 U	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	40 U	80 U	80 U	200 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	40 U	80 U	80 U	200 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	400 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	40 U	80 U	80 U	200 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	40 U	80 U	80 U	200 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	200 U	810	4.0 U		
Xylenes, m,p-	5,000	100,000	400 U																				

Table 3B
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 Aug-11	BIW-15 Jan-12	BIW-15 Feb-12	BIW-15 Mar-12	BIW-15 Aug-12	BIW-15 Apr-13	BIW-15 Jun-13	BIW-15 Oct-13	BIW-15 Dec-13	BIW-15 Apr-14	BIW-15 Jun-14	BIW-16 Dec-10	BIW-16 Feb-11	BIW-16 Aug-11	BIW-16 Jan-12	BIW-16 Feb-12	BIW-16 Mar-12	
	GW-3 MCP (ug/L)	UCL GW MCP (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	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	200 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	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	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	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	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	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	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	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)																				

Table 3B
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 Aug-12	BIW-16 Apr-13	BIW-16 Jun-13	BIW-16 Oct-13	BIW-16 Dec-13	BIW-16 Apr-14	BIW-16 Jun-14	BIW-24 Aug-11	BIW-24 Jan-12	BIW-24 Feb-12	BIW-24 Mar-12	BIW-24 Aug-12	BIW-24 Apr-13	BIW-24 Jun-13	BIW-24 Oct-13
	GW-3 MCP (ug/L)	UCL GW MCP (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	---	---	---	---	---										

Table 3B
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 Dec-13	BIW-24 Apr-14	BIW-24 Jun-14	BIW-31 Dec-10	BIW-31 Feb-11	BIW-31 Aug-11	BIW-31 Jan-12	BIW-31 Feb-12	BIW-31 Mar-12	BIW-31 Aug-12	BIW-31 Apr-13	BIW-31 Jun-13	BIW-31 Oct-13	BIW-31 Dec-13	BIW-31 Apr-14	BIW-31 Jun-14	BIW-32 Dec-10	BIW-32 Jan-11	
	GW-3 MCP	UCL GW MCP																			
	(ug/L)	(ug/L)																			
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	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	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	9.0 J	550							

Table 3B
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 Aug-11	BIW-32 Jan-12	BIW-32 Feb-12	BIW-32 Mar-12	BIW-32 Aug-12	BIW-32 Apr-13	BIW-32 Jun-13	BIW-32 Oct-13	BIW-32 Dec-13	BIW-32 Apr-14	BIW-32 Jun-14	BIW-33 Dec-10	BIW-33 Jan-11	BIW-33 Aug-11	BIW-33 Jan-12	BIW-33 Feb-12	BIW-33 Mar-12	
	GW-3 MCP (ug/L)	UCL GW MCP (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	50 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	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	5.0 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																		

Table 3B
Summary of Compounds Detected in Bedrock Groundwater
On-Property Wells (Pre-ISCO December 2010 through Post-ISCO June 2014)
Conductorlab Site, Groton, Massachusetts

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 3B
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 Dec-10	OSW-1B Feb-11	OSW-1B Mar-11	OSW-1B Aug-11	OSW-1B Jan-12	OSW-1B Feb-12	OSW-1B Mar-12	OSW-1B Aug-12	OSW-1B Mar-13	OSW-1B Jun-13	OSW-1B Sep-13	OSW-1B Dec-13	OSW-1B Apr-14	OSW-1B Jun-14
	GW-3 MCP (ug/L)	UCL GW MCP (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 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

Table 3C
Summary of Compounds Detected in Groundwater
Off-Property Wells (September 2016 - June 2018)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards ¹		CLW-17 Oct-16	CLW-17 Apr-17	CLW-17 Sep-17	CLW-17 Apr-18	CLW-19 Oct-16	CLW-19 Apr-17	CLW-19 Sep-17	CLW-19 Apr-18	CLW-20 Oct-16	CLW-20 Apr-17	CLW-20 Sep-17	CLW-20 Apr-18	CLW-22 Oct-16	CLW-22 Apr-18	CLW-22 Sep-17	CLW-22 Apr-17	CLW-17B Oct-16	CLW-17B Apr-17
	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	2.0 U															
Trichloroethene (TCE)	5,000	50,000	14	12	11	11	4.0	0.72 J	2.5	0.75 J	0.58 J	1.1	0.89 J	1.9	15	5.4	16	7.9	110	130
cis-1,2-Dichloroethene	50,000	100,000	3.0	3.4	2.7	3.6	1.0 U	1.5	26											
trans-1,2-Dichloroethene	50,000	100,000	1.0 U	6.7	8.2															
1,1-Dichloroethene	30,000	100,000	1.0 U	2.0 U	2.0 U															
Vinyl chloride	50,000	100,000	1.0 U	2.0 U	2.0 U															
Chlorinated Ethanes (ug/L)																				
1,1,2,2-Tetrachloroethane	50,000	100,000	0.50 U	1.0 U	1.0 U															
1,1-Dichloroethane	20,000	100,000	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															
Carbon disulfide	NL	NL	10 U	20 U	20 U															
Chloroform	20,000	10,000	1.0 U	2.0 U	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 U	2.0 U		2.0 U	2.0 U	2.0 U	2.0 U	4.0 U
Ethylbenzene	5,000	100,000	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															
Total Metals (ug/L)																				
Chromium (Total)	300	3,000	62	46	56	41	31	17	24	14	5.0 U	2.3 J	5.0 U	2.4 J	20	12	14	11	5.0 U	8.2
Chromium (Hexavalent)	300	3,000	65	45	72	37	42	21	30	10 U	5 UJ	5 U	10 U	10 U	22	18	26	6.3 J	10 U	5.8 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.

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 3C
Summary of Compounds Detected in Groundwater
Off-Property Wells (September 2016 - June 2018)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards ¹		CLW-17B Sep-17	CLW-17B Apr-18	CLW-19B Oct-16	CLW-19B Apr-17	CLW-19B Sep-17	CLW-19B Apr-18	CLW-19B Apr-18	CLW-20B Oct-16	CLW-20B Apr-17	CLW-20B Sep-17	CLW-20B Apr-18	CLW-22B Oct-16	CLW-22B Apr-17	CLW-22B Sep-17	CLW-22B Apr-18	PP-3 Oct-16
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)																
<i>Chlorinated Ethenes (ug/L)</i>																		
Tetrachloroethene	30,000	100,000	2.0 U	1.0 U	4.9 J													
Trichloroethene (TCE)	5,000	50,000	100	75	3.8	1.2	1.8	1.1	0.96 J	1.0 U	1.0 U	1.0 U	1.0 U	15	4.7	17	11	8,300
cis-1,2-Dichloroethene	50,000	100,000	20	18	1.0 U	1.8	1.0 U	2.6	1.7	1,400								
trans-1,2-Dichloroethene	50,000	100,000	5.7	4.2	1.0 U	10 U												
1,1-Dichloroethene	30,000	100,000	2.0 U	1.0 U	10 U													
Vinyl chloride	50,000	100,000	2.0 U	1.0 U	440													
<i>Chlorinated Ethanes (ug/L)</i>																		
1,1,2,2-Tetrachloroethane	50,000	100,000	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	0.50 U	0.50 U	5.0 U
1,1-Dichloroethane	20,000	100,000	2.0 U	1.0 U	0.82 J	0.42 J	0.68 J	1.0 U	1.0 U	1.0 U	1.0 U	10 U						
<i>Other VOCs (ug/L)</i>																		
Benzene	10,000	100,000	2.0 U	1.0 U	10 U													
Carbon disulfide	NL	NL	20 U	10 U	100 U													
Chloroform	20,000	10,000	2.0 U	1.0 U	10 U													
Chloromethane	NL	NL	4.0 U	2.0 U		2.0 U	2.0 U											
Ethylbenzene	5,000	100,000	2.0 U	1.0 U	10 U													
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	2.0 U	1.0 U	0.17 J	1.0 U	0.18 J	1.0 U	1.0 U	1.0 U	1.0 U	10 U						
<i>Total Metals (ug/L)</i>																		
Chromium (Total)	300	3,000	9.1	17	25	12	20	12	12	5.0 U	2.8 J	5.0 U	5.0 U	24	15	15	14	1,000
Chromium (Hexavalent)	300	3,000	13	16	33	12	16	10 U	10 U	5.7 J	5 U	10 U	10 U	31	14	31	6.3 J	970

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 3C
Summary of Compounds Detected in Groundwater
Off-Property Wells (September 2016 - June 2018)
Conductorlab Site, Groton, Massachusetts

Parameter	MCP Method 1 GW Standards ¹		PP-3 Apr-17	PP-3 Sep-17	PP-3 Apr-18	PP-4A Oct-16	PP-4A DUP Oct-16	PP-4A Apr-17	PP-4A Sep-17	PP-4A Apr-18	PP-4B Oct-16	PP-4B Apr-17	PP-4B Sep-17	PP-4B Apr-18
	GW-3 MCP (ug/L)	UCL GW MCP (ug/L)												
<i>Chlorinated Ethenes (ug/L)</i>														
Tetrachloroethene	30,000	100,000	10 U	5.5 J	5.0 U	2.0 U	2.0 U	4.0 U	4.0 U	1.0 U	1.8 J	10 U	20 U	20 U
Trichloroethene (TCE)	5,000	50,000	380	5,500	260	130 J	130 J	240	130	47	530	1,200	740	440
cis-1,2-Dichloroethene	50,000	100,000	49	920	24	13	14	22	14	4.5	370	720	500	360
trans-1,2-Dichloroethene	50,000	100,000	10 U	10 U	5.0 U	2.0 U	2.0 U	4.0 U	4.0 U	1.0 U	14	31	24	20 U
1,1-Dichloroethene	30,000	100,000	10 U	3.9 J	5.0 U	2.0 U	2.0 U	4.0 U	4.0 U	1.0 U	0.76 J	10 U	20 U	20 U
Vinyl chloride	50,000	100,000	10 U	230	5.0 U	2.0 U	2.0 U	4.0 U	4.0 U	1.0 U	3.0	20	20 U	20 U
<i>Chlorinated Ethanes (ug/L)</i>														
1,1,2,2-Tetrachloroethane	50,000	100,000	5.0 U	5.0 U	2.5 U	1.0 U	1.0 U	2.0 U	2.0 U	0.50 U	1.0 U	5.0 U	10 U	10 U
1,1-Dichloroethane	20,000	100,000	10 U	10 U	5.0 U	2.0 U	2.0 U	4.0 U	4.0 U	1.0 U	2.0 U	10 U	20 U	20 U
<i>Other VOCs (ug/L)</i>														
Benzene	10,000	100,000	10 U	10 U	5.0 U	2.0 U	2.0 U	4.0 U	4.0 U	1.0 U	2.0 U	10 U	20 U	20 U
Carbon disulfide	NL	NL	100 U	100 U	50 U	20 U	20 U	40 U	40 U	10 U	1.6 J	100 U	200 U	200 U
Chloroform	20,000	10,000	10 U	10 U	5.0 U	2.0 U	2.0 U	4.0 U	4.0 U	1.0 U	2.0 U	10 U	20 U	20 U
Chloromethane	NL	NL	20 U	20 U	10 U			8.0 U	8.0 U	2.0 U		20 U	40 U	40 U
Ethylbenzene	5,000	100,000	10 U	10 U	5.0 U	2.0 U	2.0 U	4.0 U	4.0 U	1.0 U	2.0 U	10 U	20 U	20 U
Methyl-tert-butyl-ether (MTBE)	50,000	100,000	10 U	10 U	5.0 U	2.0 U	2.0 U	4.0 U	4.0 U	1.0 U	2.0 U	10 U	20 U	20 U
<i>Total Metals (ug/L)</i>														
Chromium (Total)	300	3,000	730	800	590	8.9	7.8	48	5.2	32	130	43	57	25
Chromium (Hexavalent)	300	3,000	660	1,500	550	5 U	10 U	41	10 U	32	98	5 U	10 U	18

Notes:

Prepared by / Date: HTS 08/07/18

(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. Checked by / Date: CTM 08/09/18

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 3D
Summary of Compounds Detected in Surface Water (September 2016 - July 2018)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-2	CSW-2	CSW-2	CSW-2	CSW-2	CSW-3	CSW-3 DUP	CSW-3	CSW-3 DUP	CSW-3	CSW-3	CSW-3	CSW-3 DUP	CSW-3	
			Dec-16	Apr-17	Jun-17	Sep-17	Dec-17	Apr-18	Dec-16	Dec-16	Apr-17	Apr-17	Jun-17	Sep-17	Dec-17	Apr-18	Jul-18
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	0.46 J						
Trichloroethene (TCE)			1.0 U	2.3	2.3	1.2	1.4	1.8	10	2.8	0.74 J	1.0					
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						
Metals, Total (ug/L)																	
Calcium (Ca)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Hexavalent Chromium	16	11	5 U	5 U	6.7 J	10 U	10 U	10 U	50	47	24	24	62	330	38	14	17
Magnesium (Mg)			2,800	---	---	---	---	---	2,800	2,800	---	---	---	---	---	---	---
Potassium (K)			4,300	---	---	---	---	---	4,200	4,200	---	---	---	---	---	---	---
Sodium (Na)			31,000	---	---	---	---	---	30,000	30,000	---	---	---	---	---	---	---
Metals, Dissolved (ug/L)																	
Aluminum (Al)	750	87	200 U	---	---	---	---	200 U	200 U	---	---	---	---	---	---	---	200 U
Antimony (Sb)			6.0 U	---	---	---	---	6.0 U	6.0 U	---	---	---	---	---	---	---	20 U
Arsenic (As)	340	150	10 U	---	---	---	---	10 U	10 U	---	---	---	---	---	---	---	10 U
Barium (Ba)			24	---	---	---	---	24	24	---	---	---	---	---	---	---	23
Calcium (Ca)			33,000	28,000	31,000	25,000	31,000	30,000	33,000	33,000	28,000	29,000	29,000	27,000	31,000	28,000	29,000
Chromium (Cr)	570	74	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5.0 U	46	46	23	28	47	320	47	14	14
Cobalt (Co)			4.0 U	---	---	---	---	4.0 U	4.0 U	---	---	---	---	---	---	---	4.0 U
Copper (Cu)	13	9	10 U	10 U	10 U	10 U	2.4 J	6.4 J	3.3 J	3.5 J	2.8 J	3.2 J	5.2 J	13	6.3 J	3.4 J	10 U
Iron (Fe)		1,000	50 U	---	---	---	---	50 U	50 U	---	---	---	---	---	---	---	50 U
Lead (Pb)	65	2.5	5.0 U	---	---	---	---	5.0 U	5.0 U	---	---	---	---	---	---	---	5.0 U
Magnesium (Mg)			2,800	2,300	2,500	1,800	2,600	2,500	2,800	2,800	2,400	2,400	2,400	2,100	2,500	2,400	2,100
Manganese (Mn)			3.5	---	---	---	---	4.3	5.5	---	---	---	---	---	---	---	63
Nickel (Ni)	470	52	10 U	---	---	---	---	10 U	10 U	---	---	---	---	---	---	---	1.6 J
Potassium (K)			4,300	3,700	3,200	3,300	3,500	3,400	4,200	4,200	3,700	3,800	3,300	4,000	3,500	3,200	3,300
Sodium (Na)			31,000	38,000	31,000	27,000	28,000	37,000	30,000	30,000	41,000	47,000	30,000	26,000	27,000	34,000	35,000
Zinc (Zn)	120	120	50 U	---	---	---	---	50 U	50 U	---	---	---	---	---	---	---	52
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 3D
Summary of Compounds Detected in Surface Water (September 2016 - July 2018)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-3A	CSW-3A	CSW-3A	CSW-3A	CSW-3A	CSW-3A	CSW-4	CSW-4	CSW-4	CSW-4	CSW-4	CSW-5	CSW-5	CSW-5	
			Dec-16	Apr-17	Jun-17	Sep-17	Dec-17	Apr-18	Jul-18	Dec-16	Apr-17	Jun-17	Dec-17	Apr-18	Dec-16	Apr-17	Jun-17
<i>Chlorinated Ethenes (ug/L)</i>																	
Tetrachloroethene			1.0 U														
Trichloroethene (TCE)			2.4	1.1	1.8	7.6	2.9	0.81 J	7.3	1.4	0.61 J	0.70 J	1.5	0.74 J	1.0 U	0.70 J	1.0 U
cis-1,2-Dichloroethene			1.0 U														
<i>Metals, Total (ug/L)</i>																	
Calcium (Ca)			---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Hexavalent Chromium	16	11	45	20	65	290	68	18	240	48	20	58	68	27	30	13	17
Magnesium (Mg)			2,900	---	---	---	---	---	---	2,900	---	---	---	---	2,600	---	---
Potassium (K)			4,300	---	---	---	---	---	---	4,200	---	---	---	---	3,900	---	---
Sodium (Na)			37,000	---	---	---	---	---	---	41,000	---	---	---	---	53,000	---	---
<i>Metals, Dissolved (ug/L)</i>																	
Aluminum (Al)	750	87	200 U	---	---	---	---	---	200 U	200 U	---	---	---	---	200 U	---	---
Antimony (Sb)			6.0 U	---	---	---	---	---	20 U	6.0 U	---	---	---	---	6.0 U	---	---
Arsenic (As)	340	150	10 U	---	---	---	---	---	10 U	10 U	---	---	---	---	10 U	---	---
Barium (Ba)			25	---	---	---	---	---	23	24	---	---	---	---	20	---	---
Calcium (Ca)			34,000	28,000	30,000	27,000	31,000	30,000	27,000	33,000	28,000	30,000	32,000	29,000	29,000	27,000	29,000
Chromium (Cr)	570	74	49	22	53	270	51	20	230	47	20	45	51	21	25	12	5.7
Cobalt (Co)			4.0 U	---	---	---	---	---	4.0 U	4.0 U	---	---	---	---	4.0 U	---	---
Copper (Cu)	13	9	4.7 J	10 U	5.5 J	12	4.6 J	3.4 J	10 U	3.7 J	3.1 J	4.6 J	3.0 J	3.6 J	8.5 J	15	18
Iron (Fe)		1,000	50 U	---	---	---	---	---	50 U	50 U	---	---	---	---	50 U	---	---
Lead (Pb)	65	2.5	5.0 U	---	---	---	---	---	5.0 U	5.0 U	---	---	---	---	5.0 U	---	---
Magnesium (Mg)			2,900	2,400	2,400	2,100	2,500	2,500	2,200	2,900	2,300	2,400	2,700	2,500	2,600	2,300	2,400
Manganese (Mn)			13	---	---	---	---	---	28	1.7 J	---	---	---	---	3.6	---	---
Nickel (Ni)	470	52	10 U	---	---	---	---	---	1.5 J	10 U	---	---	---	---	10 U	---	---
Potassium (K)			4,300	3,800	3,400	3,800	3,500	3,400	4,200	4,200	3,700	3,400	3,600	3,300	3,900	3,700	3,300
Sodium (Na)			37,000	41,000	34,000	29,000	29,000	56,000	34,000	41,000	42,000	35,000	30,000	79,000	53,000	44,000	38,000
Zinc (Zn)	120	120	50 U	---	---	---	---	---	50 U	50 U	---	---	---	---	50 U	---	---
<i>Inorganics (mg/L)</i>																	
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 3D
Summary of Compounds Detected in Surface Water (September 2016 - July 2018)
Conductorlab Site, Groton, Massachusetts

Parameter	AWQC Acute (ug/L)	AWQC Chronic (ug/L)	CSW-5 Sep-17	CSW-5 Dec-17	CSW-5 Apr-18	CSW-5 Jul-18	CSWBKG 001 Jul-18
<i>Chlorinated Ethenes (ug/L)</i>							
Tetrachloroethene			1.0 U	1.0 U	1.0 U	1.0 U	---
Trichloroethene (TCE)			1.4	0.57 J	1.0 U	1.8	---
cis-1,2-Dichloroethene			1.0 U	1.0 U	1.0 U	1.0 U	---
<i>Metals, Total (ug/L)</i>							
Calcium (Ca)			---	---	---	---	---
Hexavalent Chromium	16	11	6.5 J	37	14	22	5.1 J
Magnesium (Mg)			---	---	---	---	---
Potassium (K)			---	---	---	---	---
Sodium (Na)			---	---	---	---	---
<i>Metals, Dissolved (ug/L)</i>							
Aluminum (Al)	750	87	---	---	---	200 U	200 U
Antimony (Sb)			---	---	---	20 U	20 U
Arsenic (As)	340	150	---	---	---	10 U	6.4 J
Barium (Ba)			---	---	---	22	37
Calcium (Ca)			31,000	28,000	29,000	31,000	28,000
Chromium (Cr)	570	74	8.6	20	17	9.8	5 U
Cobalt (Co)			---	---	---	4.0 U	0.68 J
Copper (Cu)	13	9	8.3 J	6.5 J	6.5 J	10 U	10 U
Iron (Fe)		1,000	---	---	---	42 J	160
Lead (Pb)	65	2.5	---	---	---	5.0 U	5.0 U
Magnesium (Mg)			2,400	2,500	2,400	2,400	2,100
Manganese (Mn)			---	---	---	170	1,500
Nickel (Ni)	470	52	---	---	---	10 U	10 U
Potassium (K)			3,500	3,500	3,300	3,400	3,300
Sodium (Na)			44,000	38,000	44,000	44,000	29,000
Zinc (Zn)	120	120	---	---	---	53	50 U
<i>Inorganics (mg/L)</i>							
Chloride			---	---	---	---	---
Sulfate			---	---	---	---	---

Notes:

AWQC - Ambient Water Quality Criteria

Prepared by / Date: HTS 08/07/18

Checked by / Date: CTM 08/09/18

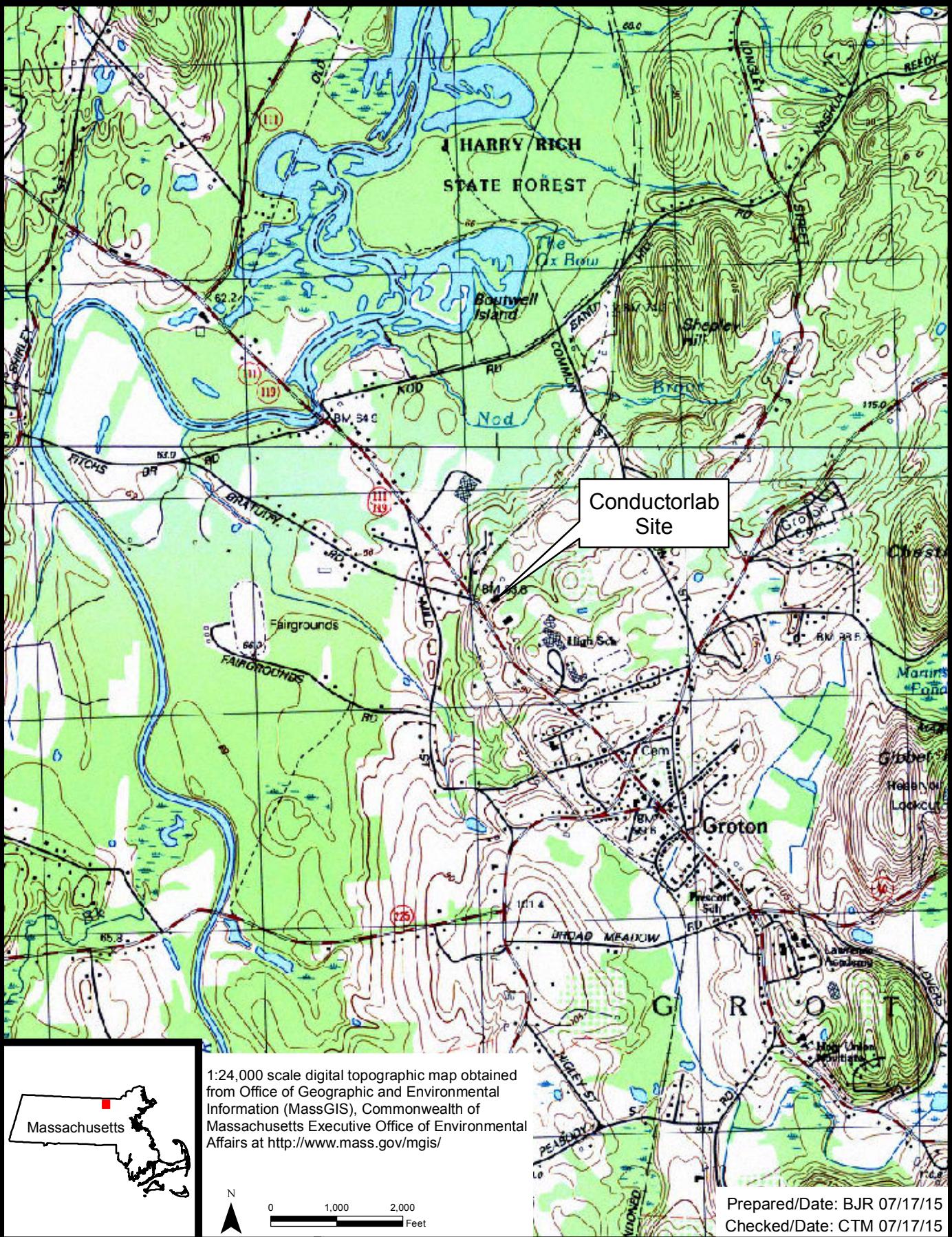
* Value for Trivalent Chromium used as a surrogate for Chromium

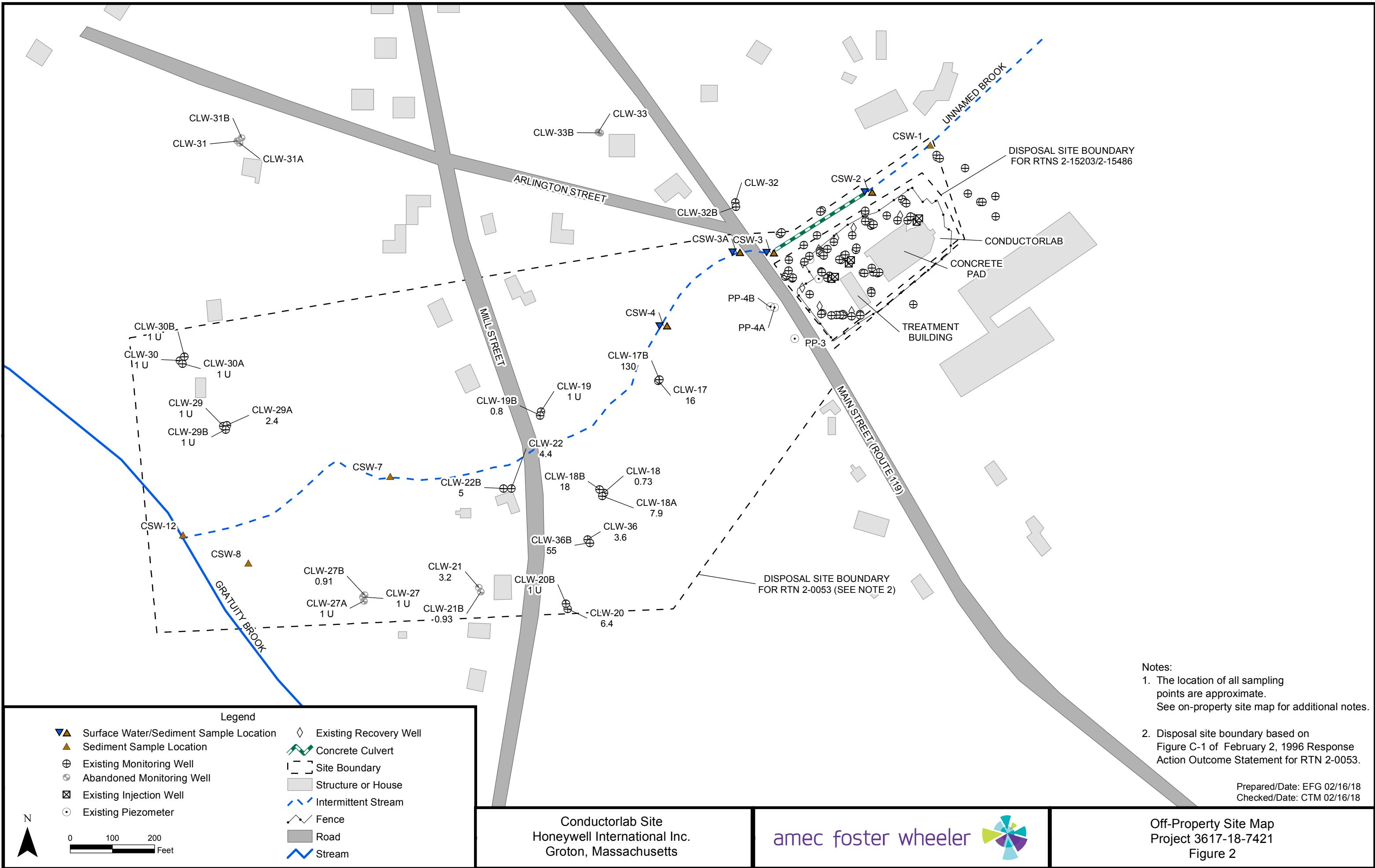
--- denotes not analyzed for; U = not detected above the indicated detection limit;

B = compound was detected in the blank; J = value was estimated

10 - Indicates value exceeds current AWQC Standards

FIGURES





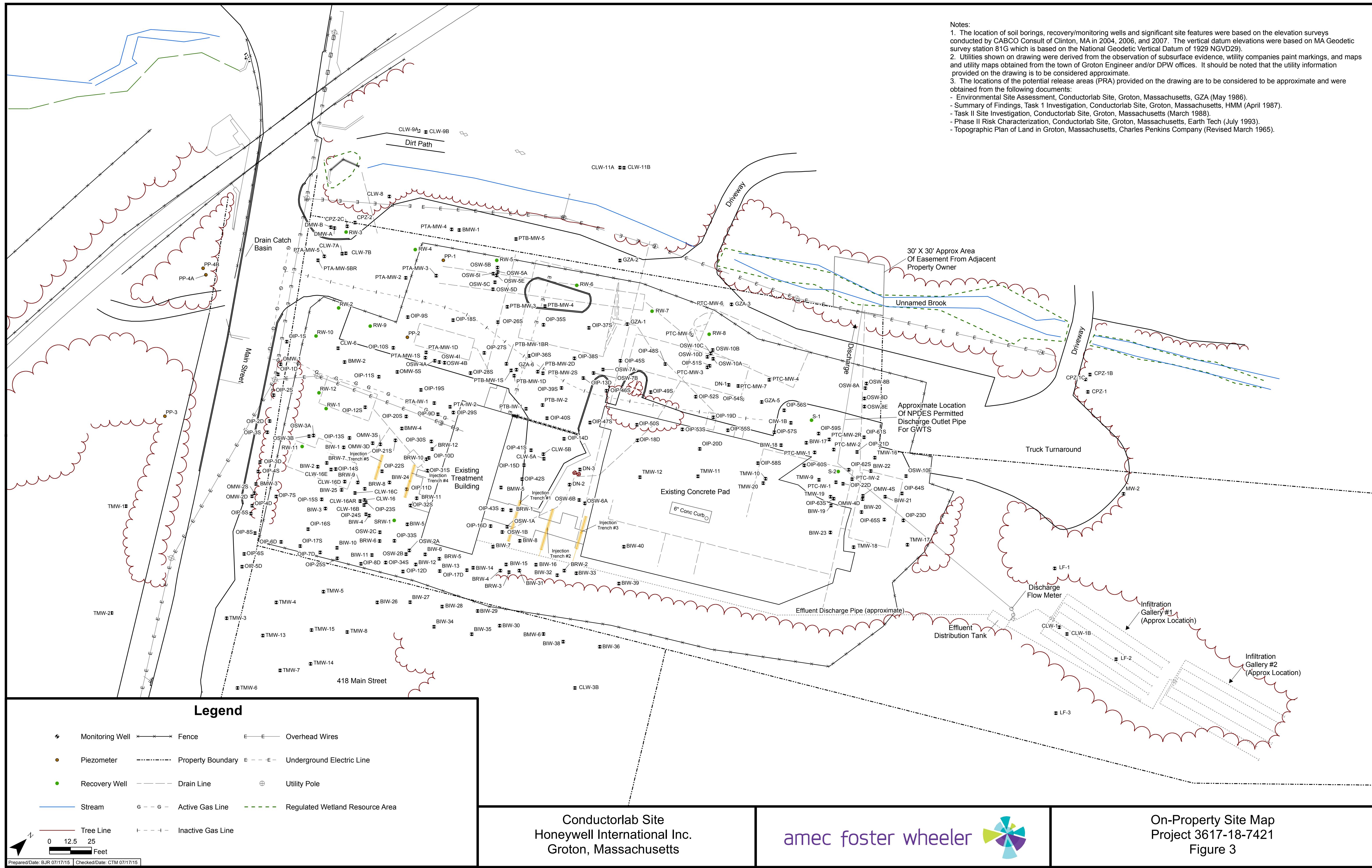
Notes:

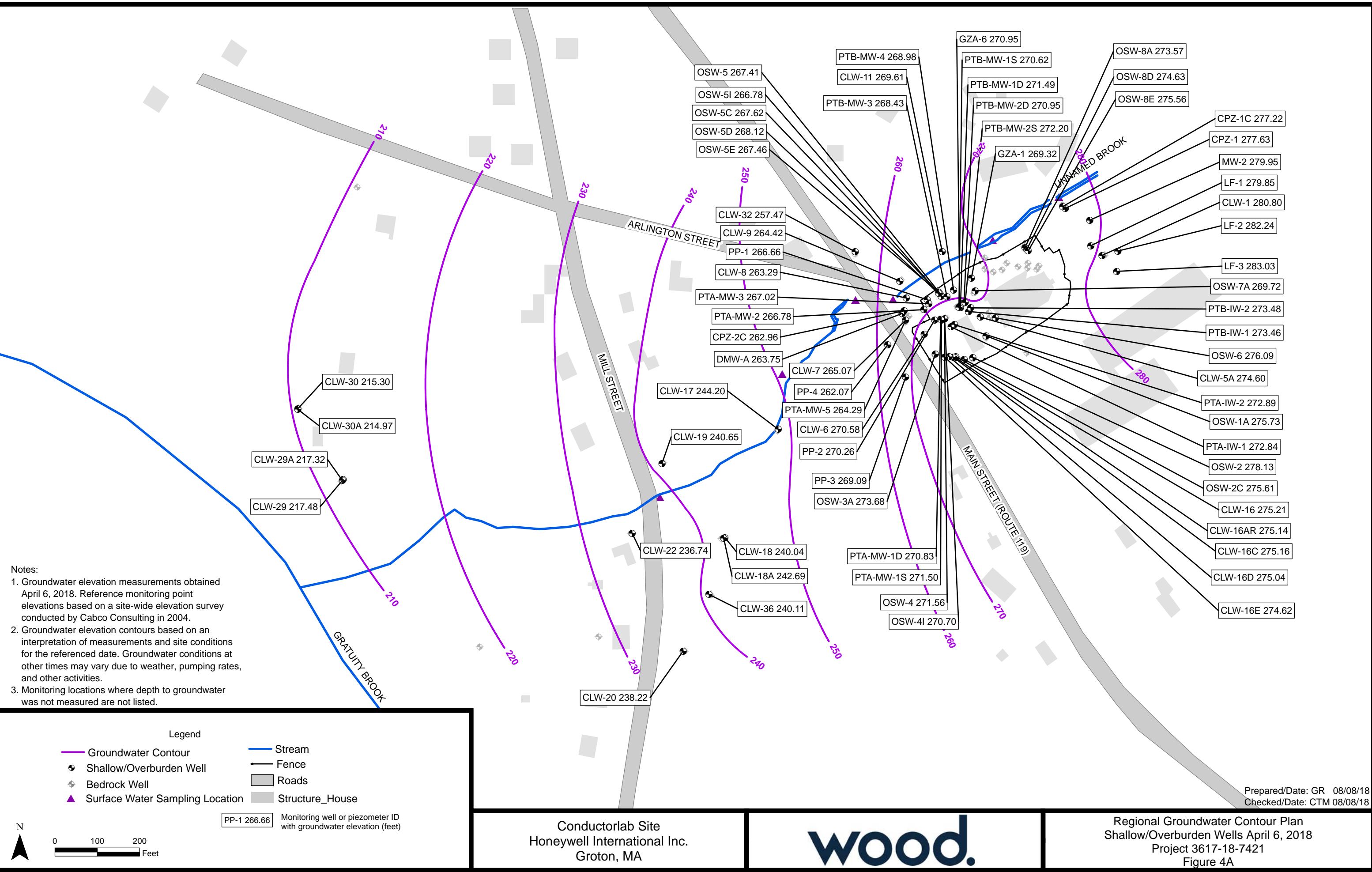
1. The location of all sampling points are approximate.
See on-property site map for additional notes.

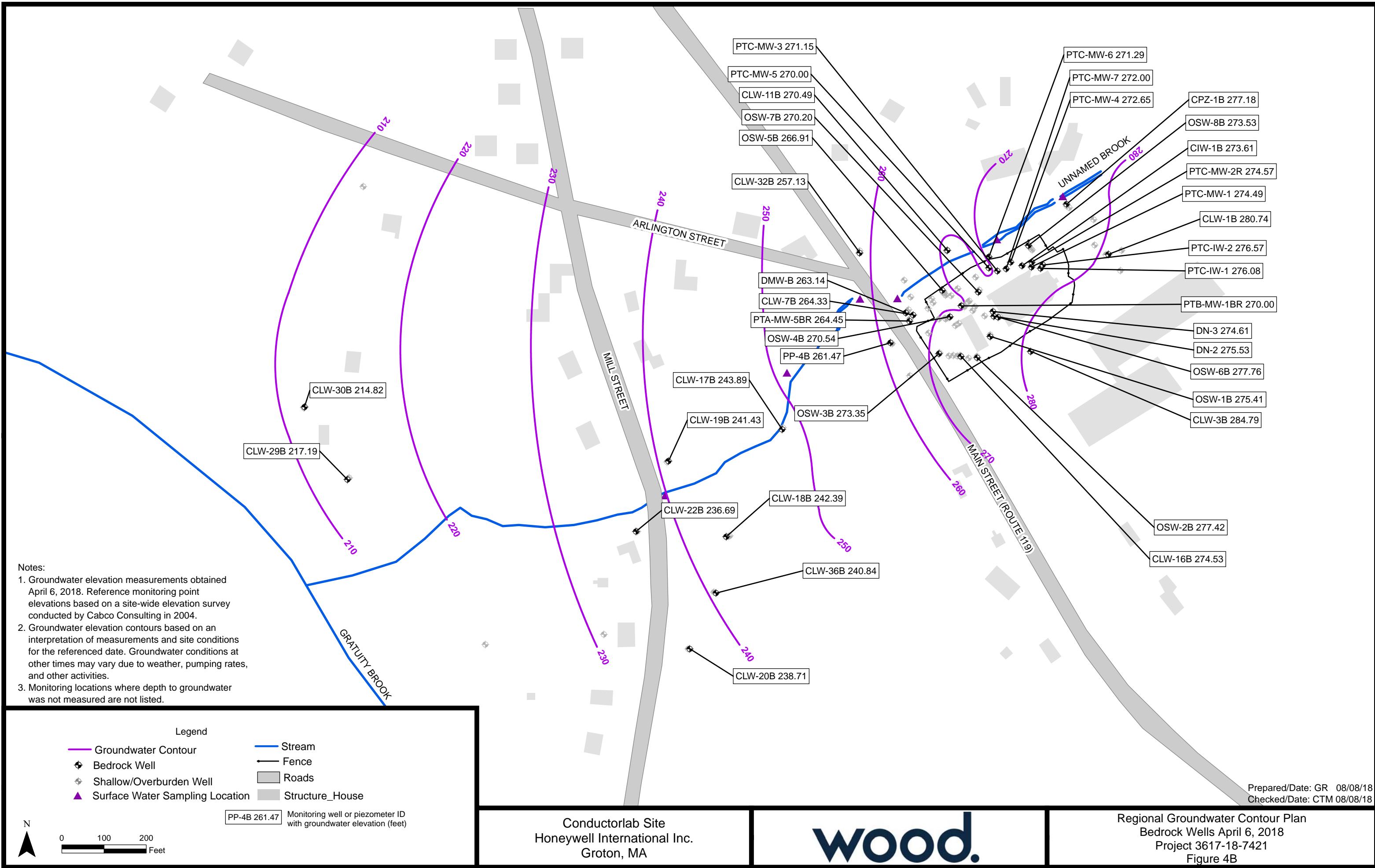
2. Disposal site boundary based on Figure C-1 of February 2, 1996 Response Action Outcome Statement for RTN 2-0053.

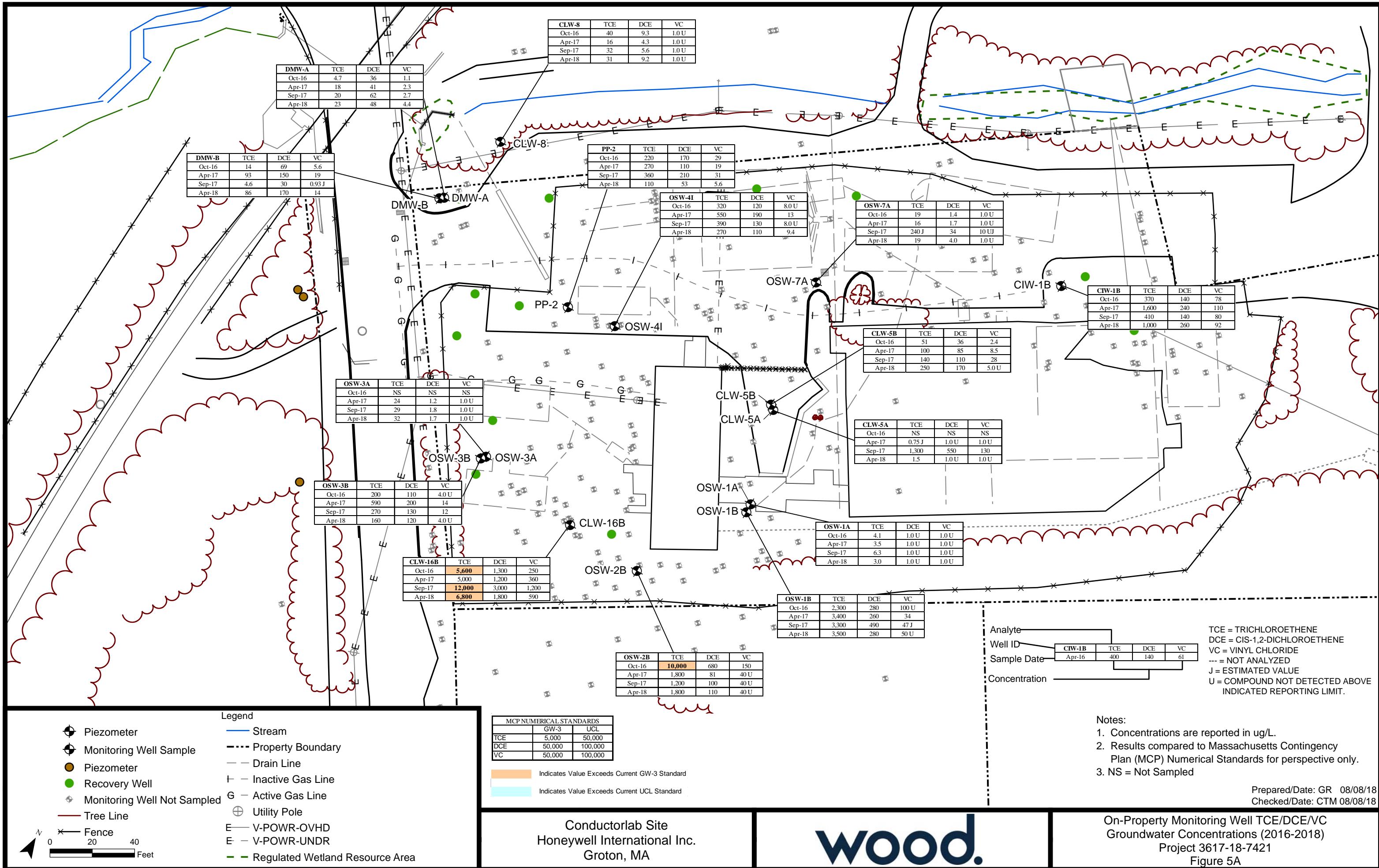
Prepared/Date: EFG 02/16/18
Checked/Date: CTM 02/16/18

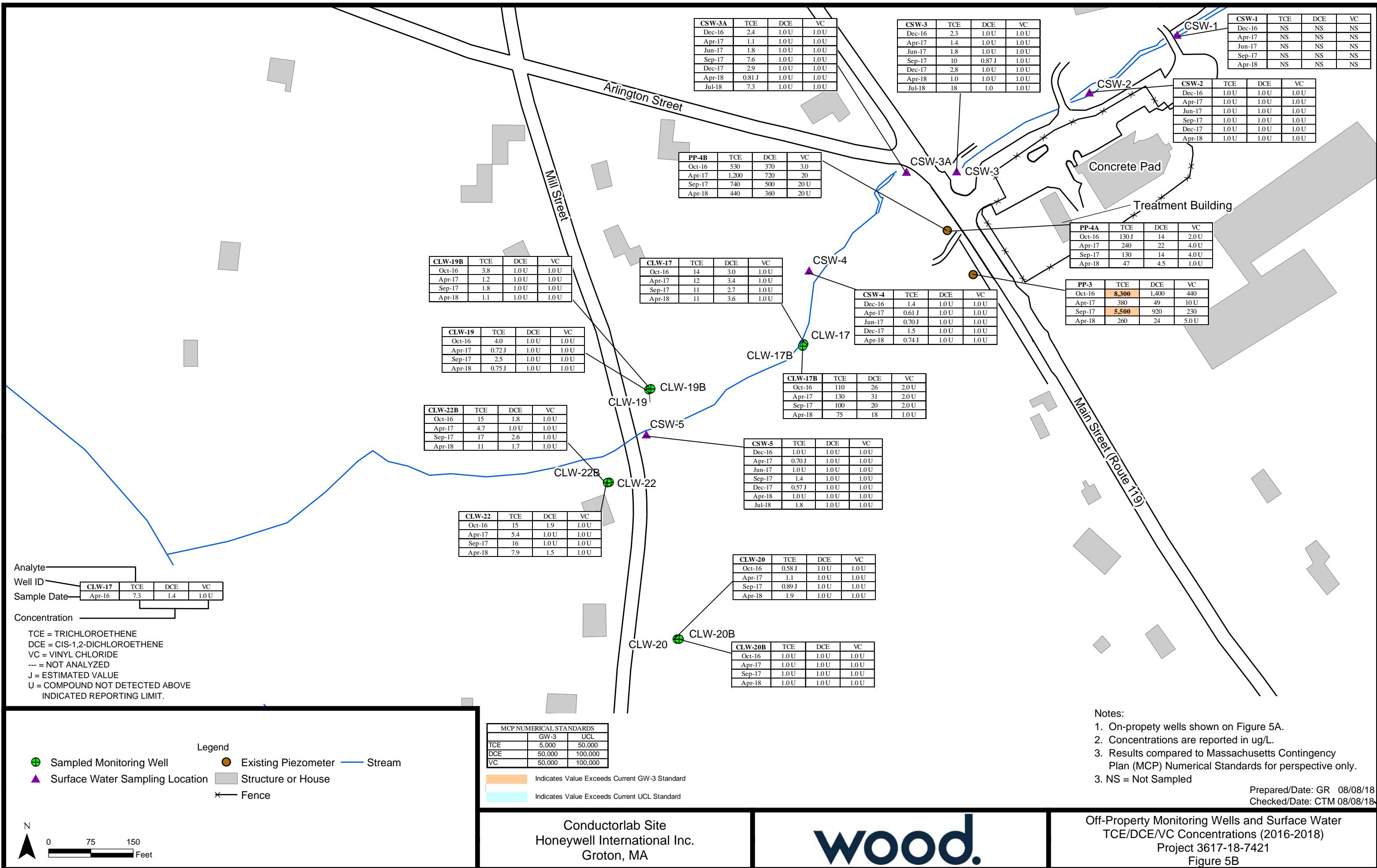
Off-Property Site Map Project 3617-18-7421 Figure 2

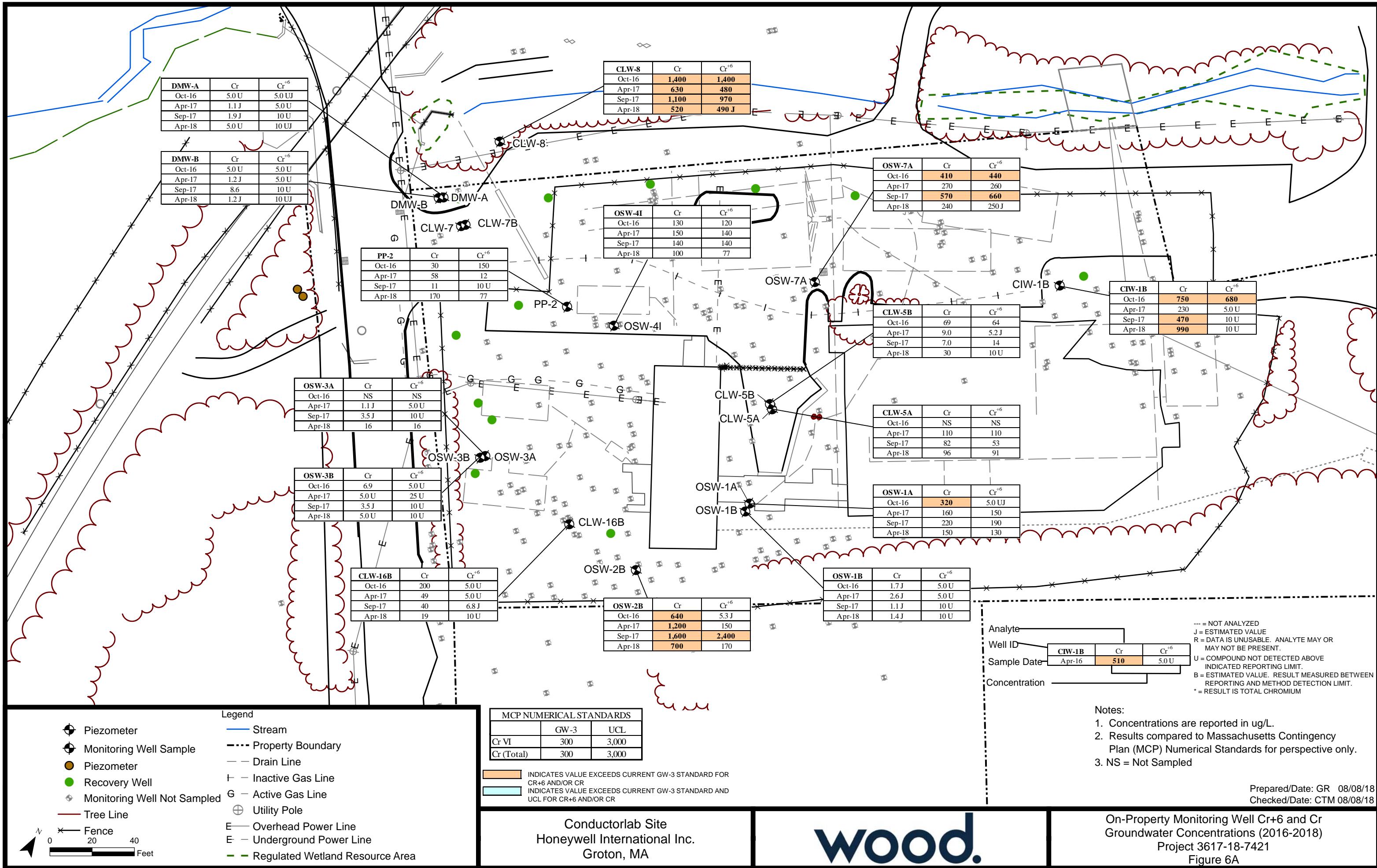


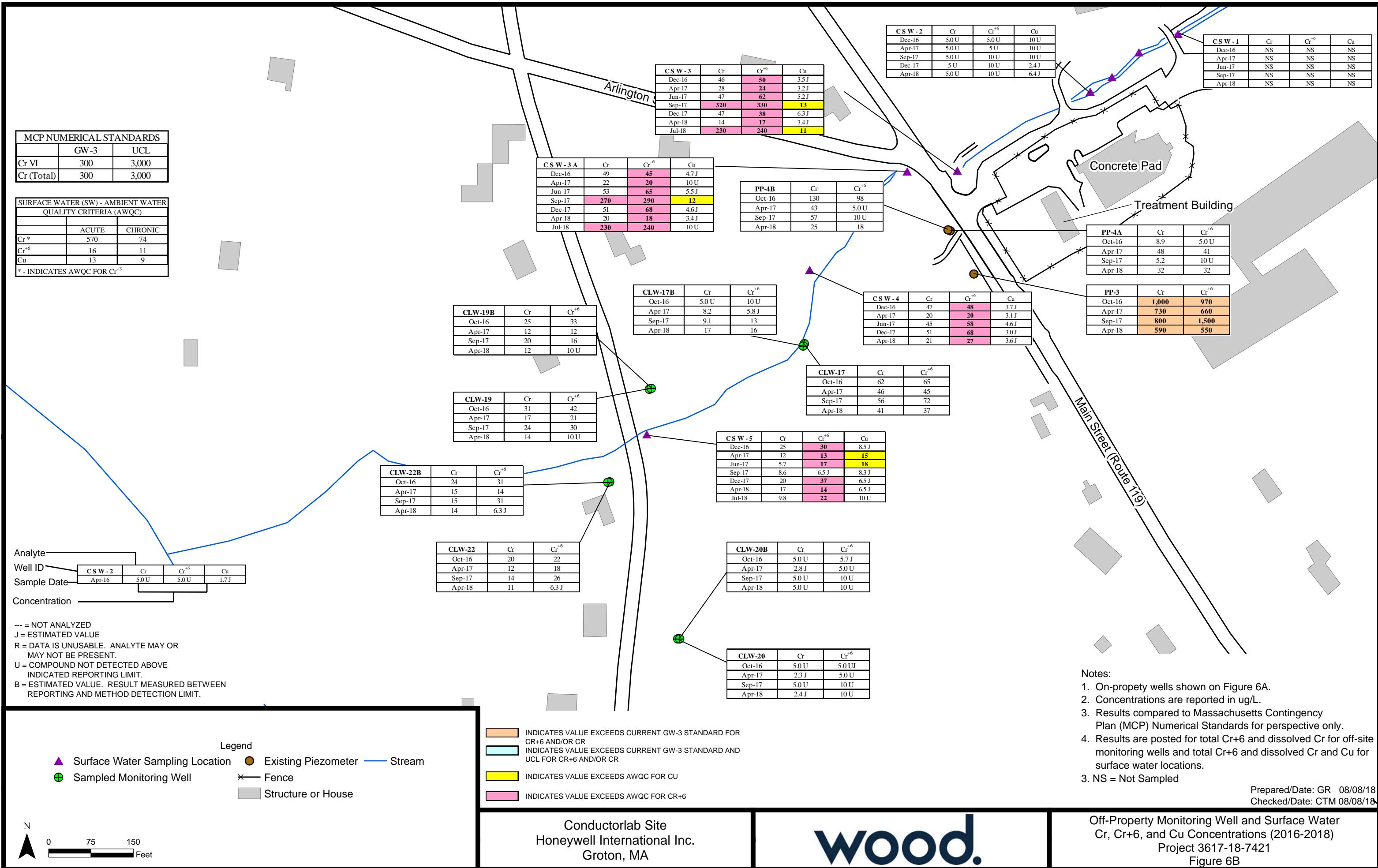












APPENDIX A

GROUNDWATER SAMPLING PROCEDURES



GROUNDWATER SAMPLING AND ANALYSIS PROCEDURES FOR THE CONDUCTORLAB SITE, GROTON, MASSACHUSETTS

Low-flow groundwater sampling is the preferred technique for groundwater sampling of monitoring wells at the Conductorlab Site. However, if low-flow sampling is not possible (e.g., well diameter is too small, insufficient water level depth in the well, or groundwater recharge rate is too slow) an alternate sampling technique may be used. Procedures for both low-flow groundwater sampling and an alternate technique are presented in this subsection.

Monitoring well sampling shall be performed no earlier than 14 days following well development.

Pre-purging Activities. The following activities shall be performed immediately prior to purging each well:

1. Check the well for proper identification and location.
2. Measure and record the height of protective casing (not applicable for flush mount installations).
3. After unlocking the well and removing any well cap, measure and record the ambient and well-mouth organic vapor levels using the PID. Appropriate action levels and safety equipment are described in the Site HASP.
4. Measured and recorded the distance between the top of the well casing and the top of the protective casing.
5. Using the electronic water level meter, measure, and record the static water level from the top of the well riser and the depth to the well bottom to the nearest 0.01 foot. Upon removing the water level wire, rinse the water level with deionized water.
6. Inspect the well for any signs of poor integrity.
7. If not following low flow purging techniques or collecting groundwater grab samples, calculate the volume to be purged using the following formula for a 4-inch and 2-inch diameter water table well and 10-inch diameter sand pack:

8.
$$\text{Total Purge Volume} = 5 \times \left(\frac{\text{Bottom Depth}}{\text{Water Level}} - 1 \right) \times 1.68 \text{ gal/ft (4-inch)} \text{ or } 0.33 \text{ (2-inch)}$$
9. Place plastic sheeting on the ground surface around the well to protect sampling equipment from becoming contaminated by material located around the well.

Low-Flow Purging Technique and Sample Collection. The following steps outline the purging and sample collection activities for low-flow sampling. A peristaltic pump or stainless steel submersible bladder pump with a Teflon bladder shall be used to conduct the low-flow purging and sampling. Field parameter measurements shall be made using instrumentation and a commercially manufactured flow through cell. Dedicated high density polyethylene (HDPE) tubing shall be used. Further details on the low-flow purging and sampling procedure are presented in the USEPA Region I - New England Low Stress (low-flow) Purging and Sampling Procedures for the Collection of Ground Water Samples from Monitoring Wells, Revision 3, January 19, 2010 (USEPA, 2010). Sample collection information shall be recorded on the Low Flow Groundwater Sampling Record. The USEPA guidance shall be used for purging and sampling procedures only.

1. Determine target depth for location of the pump intake. Target depth should be the portion of the screened interval that intersects the zone of highest hydraulic conductivity. If the zone of highest hydraulic conductivity is unknown, or if the screen is placed within homogenous material, then the target depth shall be the midpoint of the saturated screen length. Primary flow zones should be identified in wells with screen lengths longer than 10 feet, or in wells with open boreholes in bedrock.
2. Measure and record the depth to water. Care should be taken to minimize disturbance of the water column within the well during pre-sample measurements.
3. Decontaminate pump prior to use (if pumps are dedicated then this applies to the initial effort only). Attach appropriate length of dedicated HDPE tubing or mark the tubing at the appropriate point so that when the pump and tubing are lowered into the well, and the mark is at the top of the well riser, the pump shall be located at the target depth within the screened interval.



4. Carefully lower the pump to the predetermined target depth. Start the pump at a purge rate low enough to achieve 0.3 feet of drawdown or less based on historical data. If sampling the well for the first time, start the pump at the lowest possible setting (or approximately 100-milliliter [mL] per minute) and slowly increase the speed until discharge occurs. Check water level. Adjust pump speed until there is little or no drawdown (less than 0.3 feet) if possible. If minimal drawdown that can be achieved exceeds 0.3 feet (at a pump rate of approximately 100 mL per minute) but remains stable, continue purging until indicator field parameters stabilize.
5. Monitor and record pumping rate and water levels every 5 minutes (or as appropriate) during purging. Record any adjustments to pumping rates.
6. During purging, monitor field parameters using a flow through cell (the flow through cell can not be used for turbidity measurements and the sample for turbidity measurement must be collected prior to entering the flow through cell). Purging is considered complete and sampling may begin when the field parameters have stabilized. Stabilization is considered to be achieved when three consecutive readings, taken at 3 to 5 minute intervals, are within the following limits:
 - Turbidity (+/- 10% for values > 5 NTU)
 - DO (+/- 10% for values > 0.5 mg/L)
 - Specific conductivity (+/- 3%)
 - Temperature (+/- 3%)
 - pH (± 0.1 unit)
 - ORP (± 10 millivolts)
7. The final purge volume must be greater than the stabilized drawdown volume plus the tubing extraction volume.
8. During purging and sampling the tubing should remain filled with water.
9. Disconnect the tubing from the flow through cell to collect the analytical samples. Water samples for laboratory analyses must not be collected after water has passed through the flow through assembly. Fill sample containers directly from the tubing without alterations to the pumping rate.
10. The VOC fraction shall be collected first. The VOC sample container shall be completely filled without air space within the container. The remaining samples shall be collected for



11. SVOCs, pesticide/PCBs, metals, and any other fraction specified in the project work plan for the sample location.
12. For subsequent sampling efforts, duplicate the pump intake depth and final purge rate from the initial sampling event (use final pump dial setting information).
13. If using non-dedicated equipment, remove the pump and perform an external and internal rinse with Liquinox and potable water rinse followed by deionized water rinse. Obtain and record a depth to bottom of well measurement before closing the well.



Special Cases:

If the above sampling criteria cannot be met after 2 hours of purging, the following options are available:

- Continue purging until stabilization is achieved;
- Discontinue purging and collect samples.

If the recharge rate of the well is less than the lowest possible extraction rate of the pump (i.e., drawdown does not stabilize at a purge rate of approximately 100 mL per minute or less), the purge rate shall be increased and the water shall be evacuated down to the pump intake level. This shall result in several feet of stagnant water below the pump intake that shall not be evacuated. The pump should then remain in place, and the well should be sampled after the water level has recovered to at or near the initial static water level. Collect the sample from the pump at a pumping rate of approximately 100 mL per minute.

Alternate Purging Technique and Sample Collection. The following steps outline the purging and sample collection activities for conventional groundwater sampling. A peristaltic pump or equivalent pumping device shall be used to purge and sample the monitoring wells. Field parameters shall be monitored using a flow through cell as described in the low flow sampling procedure. Dedicated HDPE tubing shall be used.

1. In all shallow water table wells, lower the sampling equipment intake to just below the top of the water column and begin purging. If drawdown occurs, lower the intake to be maintained at or near the top of the water column.
2. In all deep aquifer wells, place the pump intake at the static water level and begin purging. Do not lower the pump intake below the top of the well screen. In both water table and deep aquifer wells, low permeability formations may require the pumping rate to be reduced to allow continuous pumping. If the pumped flow rate drops below one gallon per minute, notify the project team and discuss modifications to the standard purging procedures.
3. Purging shall be considered complete when the well has been purged of one volume, allowed to recover, and then sampled.
4. Record the in-situ parameters (i.e., pH, specific conductivity, DO, turbidity, ORP, and temperature) on the Groundwater Sample Field Data Sheet during the purging.



5. For groundwater grab samples from screened auger or direct-push borings, each sampling interval shall be purged as described above. Collect screened auger samples using a pump system with an inflatable packer to seal off the screened auger. After the interval is developed and sampled, advance the augers and repeat the procedure for each subsequent sampling interval to obtain samples representative of conditions vertically within the saturated zone.
6. For monitoring well sampling, fill the sample bottles directly from the pump's discharge tube. When sampling groundwater grab samples (e.g., screened auger boring), collect samples using the sampling equipment used to purge the interval. Reduce the pumping rate to minimize turbulence during sample collection.
7. Collect the sample in appropriate containers as provided by the laboratory. Collect the VOC fraction first by completely filling the vials without air space within the container. Collect the remaining samples (e.g., SVOCs, pesticide/PCBs, metals) specified in the work plan for the sample location. Where duplicate, MS/MSD, or split samples are to be collected, fill all containers for a given analytical parameter before moving on to the next parameter.
8. If dedicated tubing is used, remove the tubing and rinse the outside of the tubing after the completion of sampling at each well. Place the tubing in a protective plastic bag and store at the Site. Decontaminate the sampling equipment with deionized water (see Subsection 9.4). When sampling from a screened auger interval, deflate the packer, retrieve and decontaminate.
9. Record the sampling data on the Groundwater Sample Data Sheet.
10. Replace the well cap and secure the well lock.

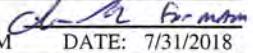
Non-dedicated pumps and discharge lines used to purge the monitoring wells shall be decontaminated between wells using Liquinox and potable water rinse followed by isopropyl alcohol rinse and a final deionized water rinse.

APPENDIX B

GROUNDWATER AND SURFACE WATER SAMPLING RECORDS

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME: Honeywell - Conductorlab Site, Groton, MA
 PROJECT NUMBER: 3617187421
 PROJECT LOCATION: Groton, MA
 WEATHER CONDITIONS (AM): Overcast, temps in ~ 30's
 WEATHER CONDITIONS (PM): "

TASK NO: DATE: 4/9/2018
 WOOD CREW: MAM/ JHP
 SAMPLER NAME: Mark Maggiore
 SAMPLER SIGNATURE: 
 CHECKED BY: CTM DATE: 7/31/2018

MULTI-PARAMETER WATER QUALITY METER

METER TYPE	YSI	AM CALIBRATION			PM CALIBRATION CHECK		
		Start Time:	8:45	End Time:	9:00	Start Time:	15:00
MODEL NO.	556 MPS	Standard Value	4.0	Meter Value	3.99	*Acceptance Criteria (AM)	+/- 0.1 pH Units
UNIT ID NO.	M015-13	Units	SU		6.91		+/- 0.1 pH Units
			pH (4)		---		+/- 0.1 pH Units
			pH (7)		240		+/- 10 mV
			pH (10)		239		+/- 10 mV
			Redox	+/- mV	1413		+/- 3% of standard
			Sp. Conductivity	µS/cm	1412		+/- 5% of standard
			DO (saturated)	%	100		%
			DO (saturated)	mg/L ¹ (see Chart 1)	99.8		+/- 0.2 mg/L
			DO (<0.1)	mg/L	---		+/- 0.5 mg/L of sat. value
			Temperature	°C	<0.1		< 0.5 mg/L
			Baro. Press.	mmHg	8.92		°C
					758.4		mmHg

TURBIDITY METER

METER TYPE	Hach	Model No.	2100Q	Unit ID No.	M024-26	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
						Background	ppmv	<0.1	Span Gas	ppmv	+/- 0.3 NTU of stan.
						Standard	NTU	10	10.5	---	+/- 5% of standard
						Standard	NTU	20	22.1	---	+/- 5% of standard
						Standard	NTU	100	101	---	+/- 5% of standard
						Standard	NTU	800	788	---	+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE	Background	ppmv	<0.1		<0.1		within 5 ppmv of BG
	Span Gas	ppmv	100		100		+/- 10% of standard

O₂-LEL 4 GAS METER

METER TYPE	Methane	%	50		50		+/- 10% of standard
MODEL NO.	O ₂	%	20.9		20.9		+/- 10% of standard
UNIT ID NO.	H ₂ S	ppmv	25		25		+/- 10% of standard
	CO	ppmv	50		50		+/- 10% of standard

OTHER METER

METER TYPE							See Notes Below for Additional Information
MODEL NO.							
UNIT ID NO.							

- Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
 Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

	Cal. Standard Lot Number	Exp. Date
pH (4)	7GI006	9/19
pH (7)	7GH1000	8/19
pH (10)	---	---
ORP	1600	5/22
Conductivity	7GH1079	8/18
10 Turb. Stan.	A7215	11/18
20 Turb. Stan.	A7227	11/18
100 Turb. Stan.	A7228	11/18
800 Turb. Stan.	A72238	11/18
PID Span Gas	---	---
O ₂ -LEL Span Gas	---	---
DO	---	---

NOTES:

wood.

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-Field Calibration) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additional acceptance criteria obtained from instrument specific manufacturer recommendations.

** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.

1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-Field Calibration), dated 1/19/2010.

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME: Honeywell - Conductorlab Site, Groton, MA
 PROJECT NUMBER: 3617187421
 PROJECT LOCATION: Groton, MA
 WEATHER CONDITIONS (AM): Mostly sunny, temps in ~ 30's
 WEATHER CONDITIONS (PM): Cloudy, temps in ~ 35's

TASK NO: _____ DATE: 4/9/2018
 WOOD CREW: JHP/ MAM
 SAMPLER NAME: Jacob Poirier
 SAMPLER SIGNATURE: 
 CHECKED BY: CTM DATE: 7/31/2018

MULTI-PARAMETER WATER QUALITY METER

METER TYPE	YSI	AM CALIBRATION			PM CALIBRATION CHECK		
		Start Time:	7:55	End Time:	8:15	Start Time:	15:00
MODEL NO.	556 MPS	Standard Value	4.0	Meter Value	4.00	*Acceptance Criteria (AM)	7.0
UNIT ID NO.	10D101665	Units	SU	Value	7.00	+/- 0.1 pH Units	7.04
			pH (4)		---	+/- 0.1 pH Units	+/- 0.3 pH Units
			pH (7)		---	+/- 0.1 pH Units	+/- 0.3 pH Units
			pH (10)		---	+/- 0.1 pH Units	+/- 0.3 pH Units
			Redox	+/- mV	240	+/- 10 mV	243.2
			Sp. Conductivity	µS/cm	1413	+/- 3% of standard	1417
			DO (saturated)	%	100	+/- 2% of standard	97.2
			DO (saturated)	mg/L ¹ (see Chart 1)	---	+/- 0.2 mg/L	---
			DO (<0.1)	mg/L	<0.1	< 0.5 mg/L	< 0.5 mg/L
			Temperature	°C	1.33		5.27
			Baro. Press.	mmHg	758.9		760.1

TURBIDITY METER

METER TYPE	Hach	Model No.	2100Q	Unit ID No.	14050C032688	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
						Standard	NTU	10	9.91	10	+/- 0.3 NTU of stan.
						Standard	NTU	20	20.1	20	+/- 5% of standard
						Standard	NTU	100	102	100	+/- 5% of standard
						Standard	NTU	800	798	800	+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE	Background	ppmv	<0.1	<0.1	within 5 ppmv of BG
	Span Gas	ppmv	100	100	+/- 10% of standard

O₂-LEL 4 GAS METER

METER TYPE	Methane	%	50	50	+/- 10% of standard
	O ₂	%	20.9	20.9	+/- 10% of standard
	H ₂ S	ppmv	25	25	+/- 10% of standard
	CO	ppmv	50	50	+/- 10% of standard

OTHER METER

METER TYPE	_____	_____	_____	_____	_____	_____	See Notes Below for Additional Information
MODEL NO.	_____	_____	_____	_____	_____	_____	
UNIT ID NO.	_____	_____	_____	_____	_____	_____	

- Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
 Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

Deionized Water Source: Groton Site
 Lot#/Date Produced: _____
 Trip Blank Source: Lab
 Sample Preservatives Source: Lab
 Disposable Filter Type: 0.45µm
 Calibration Fluids / Standard Source:
 - DO Calibration Fluid (<0.1 mg/L) ---
 - Other ---
 - Other ---
 - Other ---

	Cal. Standard Lot Number	Exp. Date
pH (4)	7G1006	9/19
pH (7)	7GH1000	8/19
pH (10)	---	--
ORP	1600	5/22
Conductivity	7GH1079	8/18
10 Turb. Stan.	A7195	10/18
20 Turb. Stan.	A7186	9/18
100 Turb. Stan.	A7202	10/18
800 Turb. Stan.	A7191	10/18
PID Span Gas	---	--
O ₂ -LEL Span Gas	---	--
DO	---	--

NOTES:

wood.

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-Field Calibration) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additional acceptance criteria obtained from instrument specific manufacturer recommendations.

** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.

1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-Field Calibration), dated 1/19/2010.

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME: Honeywell - Conductorlab Site, Groton, MA
 PROJECT NUMBER: 3617187421
 PROJECT LOCATION: Groton, MA
 WEATHER CONDITIONS (AM): Mostly cloudy, temps in ~ 30's
 WEATHER CONDITIONS (PM): "

TASK NO: DATE: 4/10/2018
 WOOD CREW: MAM/ JHP
 SAMPLER NAME: Mark Maggiore
 SAMPLER SIGNATURE: *dm for mpm*
 CHECKED BY: CTM DATE: 7/31/2018

MULTI-PARAMETER WATER QUALITY METER

METER TYPE	YSI	AM CALIBRATION				PM CALIBRATION CHECK		
		Start Time:	7:45	End Time:	8:00	Start Time:	14:45	End Time:
MODEL NO.	556 MPS	Standard Value	4.0	Meter Value	4.01	*Acceptance Criteria (AM)	Standard Value	Meter Value
UNIT ID NO.	M015-13	Units	SU	7.0	7.03	+/- 0.1 pH Units	7.0	7.22
			pH (4)			+/- 0.1 pH Units		+/- 0.3 pH Units
			pH (7)			+/- 0.1 pH Units		+/- 10 mV
			pH (10)		---	+/- 0.1 pH Units		+/- 5% of standard
			Redox	+/- mV	240	+/- 10 mV	240	231
			Sp. Conductivity	µS/cm	1413	+/- 3% of standard	1413	1427
			DO (saturated)	%	100	+/- 2% of standard	100.3	111.1
			DO (saturated)	mg/L ¹ (see Chart 1)		+/- 0.2 mg/L		13.36
			DO (<0.1)	mg/L	<0.1	< 0.5 mg/L	DO (<0.1)	---
			Temperature	°C				< 0.5 mg/L
			Baro. Press.	mmHg				7.40
					760.7			758.1

TURBIDITY METER

METER TYPE	Hach	Model No.	2100Q	Unit ID No.	M024-26	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
						NTU	10	13.3	NTU	20	+/- 0.3 NTU of stan.
						Standard	NTU	20	27.2	26.0	+/- 5% of standard
						Standard	NTU	100	120	114	+/- 5% of standard
						Standard	NTU	800	850	837	+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE	Background	ppmv	<0.1	<0.1	within 5 ppmv of BG
MODEL NO.	Span Gas	ppmv	100	100	+/- 10% of standard

O₂-LEL 4 GAS METER

METER TYPE	Methane	%	50	50	+/- 10% of standard
MODEL NO.	O ₂	%	20.9	20.9	+/- 10% of standard
UNIT ID NO.	H ₂ S	ppmv	25	25	+/- 10% of standard
	CO	ppmv	50	50	+/- 10% of standard

OTHER METER

METER TYPE											See Notes Below for Additional Information
MODEL NO.											
UNIT ID NO.											

- Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
 Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

Deionized Water Source: Groton Site
 Lot#/Date Produced:
 Trip Blank Source: Lab
 Sample Preservatives Source: Lab
 Disposable Filter Type: 0.45µm
 Calibration Fluids / Standard Source:
 - DO Calibration Fluid (<0.1 mg/L) —
 - Other —
 - Other —
 - Other —

	Cal. Standard Lot Number	Exp. Date
pH (4)	7GI006	9/19
pH (7)	7GH1000	8/19
pH (10)	---	---
ORP	1600	5/22
Conductivity	7GH1079	8/18
10 Turb. Stan.	A7215	11/18
20 Turb. Stan.	A7227	11/18
100 Turb. Stan.	A7228	11/18
800 Turb. Stan.	A72238	11/18
PID Span Gas	---	—
O ₂ -LEL Span Gas	---	—
DO	—	—

NOTES:

wood.

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-Field Calibration) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additional acceptance criteria obtained from instrument specific manufacturer recommendations.

** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.

1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-Field Calibration), dated 1/19/2010.

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME: Honeywell - Conductorlab Site, Groton, MA
 PROJECT NUMBER: 3617187421
 PROJECT LOCATION: Groton, MA
 WEATHER CONDITIONS (AM): Cloudy, temps in ~ 30's
 WEATHER CONDITIONS (PM): Cloudy, temps in ~ 35's

TASK NO: DATE: 4/10/2018
 WOOD CREW: JHP/ MAM
 SAMPLER NAME: Jacob Poirier
 SAMPLER SIGNATURE: *Jacob Poirier*
 CHECKED BY: CTM DATE: 7/31/2018

MULTI-PARAMETER WATER QUALITY METER

METER TYPE	YSI	AM CALIBRATION				PM CALIBRATION CHECK		
		Start Time:	7:40	End Time:	7:55	Start Time:	14:30	End Time:
MODEL NO.	556 MPS					Standard Value	Meter Value	*Acceptance Criteria (PM)
UNIT ID NO.	10D101665					7.0	7.05	+/- 0.3 pH Units
	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)		240	237.7	+/- 10 mV
pH (4)	SU	4.0	4.00	+/- 0.1 pH Units		1413	1480	+/- 5% of standard
pH (7)	SU	7.0	7.00	+/- 0.1 pH Units		97.1		%
pH (10)	SU	10.0	---	+/- 0.1 pH Units		---		+/- 0.5 mg/L of sat. value
Redox	+/- mV	240	240.1	+/- 10 mV		DO (<0.1)	---	< 0.5 mg/L
Sp. Conductivity	$\mu\text{S}/\text{cm}$	1413	1413	+/- 3% of standard		6.16		$^{\circ}\text{C}$
DO (saturated)	%	100	99.9	+/- 2% of standard		761.7		mmHg
DO (saturated) mg/L ¹ (see Chart 1)			---	+/- 0.2 mg/L				
DO (<0.1)	mg/L	<0.1	---	< 0.5 mg/L				
Temperature	$^{\circ}\text{C}$		4.09					
Baro. Press.	mmHg		760.6					

TURBIDITY METER

METER TYPE	Hach	Units	Standard	Meter	Standard	Meter	*Acceptance
			Value	Value	Value	Value	Criteria (PM)
MODEL NO.	2100Q						+/- 0.3 NTU of stan.
UNIT ID NO.	14050C032688	Standard	NTU	10	9.79	10	9.85
		Standard	NTU	20	20.4	20	19.6
		Standard	NTU	100	100	100	+/- 5% of standard
		Standard	NTU	800	805	800	+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE	Background	ppmv	<0.1	<0.1	within 5 ppmv of BG
MODEL NO.		Span Gas	ppmv	100	+/- 10% of standard
UNIT ID NO.					

O₂-LEL 4 GAS METER

METER TYPE	Methane	%	50	50	+/- 10% of standard
MODEL NO.	O ₂	%	20.9	20.9	+/- 10% of standard
UNIT ID NO.	H ₂ S	ppmv	25	25	+/- 10% of standard
	CO	ppmv	50	50	+/- 10% of standard

OTHER METER

METER TYPE							See Notes Below
MODEL NO.							for Additional
UNIT ID NO.							Information

Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.

Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

Deionized Water Source: Groton Site
 Lot#/Date Produced:
 Trip Blank Source: Lab
 Sample Preservatives Source: Lab
 Disposable Filter Type: 0.45μm
 Calibration Fluids / Standard Source:
 - DO Calibration Fluid (<0.1 mg/L) ---
 - Other ---
 - Other ---
 - Other ---

	Cal. Standard Lot Number	Exp. Date
pH (4)	7GI006	9/19
pH (7)	7GH1000	8/19
pH (10)	---	---
ORP	1600	5/22
Conductivity	7GH1079	8/18
10 Turb. Stan.	A7195	10/18
20 Turb. Stan.	A7186	9/18
100 Turb. Stan.	A7202	10/18
800 Turb. Stan.	A7191	10/18
PID Span Gas	---	---
O ₂ -LEL Span Gas	---	---
DO	---	---

NOTES:

wood.

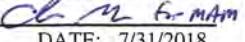
* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-Field Calibration) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additional acceptance criteria obtained from instrument specific manufacturer recommendations.

** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.

1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-Field Calibration), dated 1/19/2010.

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME: Honeywell - Conductorlab Site, Groton, MA
 PROJECT NUMBER: 3617187421
 PROJECT LOCATION: Groton, MA
 WEATHER CONDITIONS (AM): Sunny, cold, temps in ~ 30's
 WEATHER CONDITIONS (PM): "

TASK NO: DATE: 4/11/2018
 WOOD CREW: MAM/ JHP
 SAMPLER NAME: Mark Maggiore
 SAMPLER SIGNATURE: 
 CHECKED BY: CTM DATE: 7/31/2018

MULTI-PARAMETER WATER QUALITY METER

METER TYPE	YSI	AM CALIBRATION				PM CALIBRATION CHECK		
		Start Time:	7:50	End Time:	8:00	Start Time:	15:15	End Time:
MODEL NO.	556 MPS					Standard Value	Meter Value	*Acceptance Criteria (PM)
UNIT ID NO.	M015-13					7.0	7.33	+/- 0.3 pH Units
	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)		240	238	+/- 10 mV
pH (4)	SU	4.0	4.05	+/- 0.1 pH Units		1413	1418	+/- 5% of standard
pH (7)	SU	7.0	7.01	+/- 0.1 pH Units		100	103.1	%
pH (10)	SU	10.0	---	+/- 0.1 pH Units		13.58	---	+/- 0.5 mg/L of sat. value
Redox	+/- mV	240	247	+/- 10 mV		DO (<0.1)	---	< 0.5 mg/L
Sp. Conductivity	µS/cm	1413	1451	+/- 3% of standard			14.06	"C
DO (saturated)	%	100	100.0	+/- 2% of standard			755.3	mmHg
DO (saturated) mg/L ¹ (see Chart 1)								
DO (<0.1)	mg/L	<0.1	---	< 0.5 mg/L				
Temperature	°C		2.64					
Baro. Press.	mmHg		760.9					

TURBIDITY METER

METER TYPE	Hach	Units	Standard	Meter	Standard	Meter	*Acceptance Criteria (PM)
			Value	Value			
MODEL NO.	2100Q		NTU	10	15.1	10	+/- 0.3 NTU of stan.
UNIT ID NO.	M024-26		Standard	20	27.9	20	+/- 5% of standard
			Standard	100	120	100	+/- 5% of standard
			Standard	800	846	800	+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE	Background	ppmv	<0.1	<0.1	within 5 ppmv of BG
MODEL NO.					
UNIT ID NO.					

O₂-LEL 4 GAS METER

METER TYPE	Methane	%	50	50	+/- 10% of standard
MODEL NO.	O ₂	%	20.9	20.9	+/- 10% of standard
UNIT ID NO.	H ₂ S	ppmv	25	25	+/- 10% of standard
	CO	ppmv	50	50	+/- 10% of standard

OTHER METER

METER TYPE								See Notes Below for Additional Information
MODEL NO.								
UNIT ID NO.								

Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.

Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

Deionized Water Source: Groton Site
 Lot#/Date Produced:
 Trip Blank Source: Lab
 Sample Preservatives Source: Lab
 Disposable Filter Type: 0.45µm
 Calibration Fluids / Standard Source:
 - DO Calibration Fluid (<0.1 mg/L) --
 - Other --
 - Other --
 - Other --

	Cal. Standard Lot Number	Exp. Date
pH (4)	7G1006	9/19
pH (7)	7GH1000	8/19
pH (10)	---	--
ORP	1600	5/22
Conductivity	7GH1079	8/18
10 Turb. Stan.	A7215	11/18
20 Turb. Stan.	A7227	11/18
100 Turb. Stan.	A7228	11/18
800 Turb. Stan.	A72238	11/18
PID Span Gas	--	--
O ₂ -LEL Span Gas	--	--
DO	--	--

NOTES:



* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-Field Calibration) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additional acceptance criteria obtained from instrument specific manufacturer recommendations.

** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.

1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-Field Calibration), dated 1/19/2010.

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME: Honeywell - Conductorlab Site, Groton, MA
 PROJECT NUMBER: 3617187421
 PROJECT LOCATION: Groton, MA
 WEATHER CONDITIONS (AM): Sunny, temps in ~ 30's
 WEATHER CONDITIONS (PM): Cloudy, temps in ~ 40's

TASK NO: DATE: 4/11/2018
 WOOD CREW: JHP/ MAM
 SAMPLER NAME: Jacob Poirier
 SAMPLER SIGNATURE: *Jacob Poirier*
 CHECKED BY: CTM DATE: 7/31/2018

MULTI-PARAMETER WATER QUALITY METER

METER TYPE	YSI	AM CALIBRATION				PM CALIBRATION CHECK		
		Start Time:	7:50	End Time:	8:10	Start Time:	15:40	End Time:
MODEL NO.	556 MPS					Standard Value	Meter Value	*Acceptance Criteria (PM)
UNIT ID NO.	10D101665					7.0	7.04	+/- 0.3 pH Units
	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)		240	236.7	+/- 10 mV
pH (4)	SU	4.0	4.00	+/- 0.1 pH Units		1413	1420	+/- 5% of standard
pH (7)	SU	7.0	7.00	+/- 0.1 pH Units		94.2		%
pH (10)	SU	10.0	---	+/- 0.1 pH Units		---		+/- 0.5 mg/L of sat. value
Redox	+/- mV	240	240.0	+/- 10 mV		DO (<0.1)	---	< 0.5 mg/L
Sp. Conductivity	µS/cm	1413	1413	+/- 3% of standard		7.12		"C
DO (saturated)	%	100	100.0	+/- 2% of standard		760.9		mmHg
DO (saturated) mg/L ¹ (see Chart 1)			---	+/- 0.2 mg/L				
DO (<0.1)	mg/L	<0.1	---	< 0.5 mg/L				
Temperature	°C		4.33					
Baro. Press.	mmHg		760.5					

TURBIDITY METER

METER TYPE	Hach	Units	Standard	Meter	Standard	Meter	*Acceptance Criteria (PM)
			Value	Value			
MODEL NO.	2100Q		NTU	10	10.2	9.88	+/- 0.3 NTU of stan.
UNIT ID NO.	14050C032688		Standard	20	20.1	19.9	+/- 5% of standard
			Standard	100	102	99.6	+/- 5% of standard
			Standard	800	797	801	+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE	Background	ppmv	<0.1	<0.1	within 5 ppmv of BG
MODEL NO.					
UNIT ID NO.					

O₂-LEL 4 GAS METER

METER TYPE	Methane	%	50	50	+/- 10% of standard
MODEL NO.	O ₂	%	20.9	20.9	+/- 10% of standard
UNIT ID NO.	H ₂ S	ppmv	25	25	+/- 10% of standard
	CO	ppmv	50	50	+/- 10% of standard

OTHER METER

METER TYPE							See Notes Below for Additional Information
MODEL NO.							
UNIT ID NO.							

Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.

Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

	Cal. Standard Lot Number	Exp. Date
pH (4)	7G1006	9/19
pH (7)	7GH1000	8/19
pH (10)	---	---
ORP	1600	5/22
Conductivity	7GH1079	8/18
10 Turb. Stan.	A7195	10/18
20 Turb. Stan.	A7186	9/18
100 Turb. Stan.	A7202	10/18
800 Turb. Stan.	A7191	10/18
PID Span Gas	---	---
O ₂ -LEL Span Gas	---	---
DO	---	---

NOTES:

wood.

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-Field Calibration) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additional acceptance criteria obtained from instrument specific manufacturer recommendations.

** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.

1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-Field Calibration), dated 1/19/2010.

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME: Honeywell - Conductorlab Site, Groton, MA
 PROJECT NUMBER: 3617187421
 PROJECT LOCATION: Groton, MA
 WEATHER CONDITIONS (AM): Sunny, temps in ~ 45's
 WEATHER CONDITIONS (PM): Cloudy, temps in ~ 58's

TASK NO: DATE: 4/12/2018
 WOOD CREW: SAM/ JHP
 SAMPLER NAME: Sam Mizusawa
 SAMPLER SIGNATURE: *[Signature]*
 CHECKED BY: CTM DATE: 7/31/2018

MULTI-PARAMETER WATER QUALITY METER

METER TYPE	YSI	AM CALIBRATION				PM CALIBRATION CHECK		
		Start Time:	8:30	End Time:	8:45	Start Time:	15:40	End Time:
MODEL NO.	556 MPS	Standard Value	4.0	Meter Value	4.00	*Acceptance Criteria (AM)	7.0	7.04
UNIT ID NO.	M015-13	Units	SU		+/- 0.1 pH Units			+/- 0.3 pH Units
		pH (4)	SU	7.0	+/- 0.1 pH Units			+/- 10 mV
		pH (7)	SU	10.0	+/- 0.1 pH Units			+/- 5% of standard
		pH (10)	SU	---	+/- 0.1 pH Units			%
		Redox	+/- mV	240	+/- 10 mV			+/- 0.5 mg/L of sat. value
		Sp. Conductivity	µS/cm	1413	+/- 3% of standard			
		DO (saturated)	%	100	+/- 2% of standard			
		DO (saturated)	mg/L ¹ (see Chart 1)	12.09	+/- 0.2 mg/L			
		DO (<0.1)	mg/L	<0.1	< 0.5 mg/L			< 0.5 mg/L
		Temperature	°C	7.14				
		Baro. Press.	mmHg	757.7				

TURBIDITY METER

METER TYPE	Hach	Model No.	2100Q	Unit ID No.	M024-26	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
						Standard	NTU	10	10.2	10	+/- 0.3 NTU of stan.
						Standard	NTU	20	19.8	20	+/- 5% of standard
						Standard	NTU	100	104	100	+/- 5% of standard
						Standard	NTU	800	792	800	+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE	Background	ppmv	<0.1	<0.1	within 5 ppmv of BG
MODEL NO.	Span Gas	ppmv	100	100	+/- 10% of standard

O₂-LEL 4 GAS METER

METER TYPE	Methane	%	50	50	+/- 10% of standard
MODEL NO.	O ₂	%	20.9	20.9	+/- 10% of standard
UNIT ID NO.	H ₂ S	ppmv	25	25	+/- 10% of standard
	CO	ppmv	50	50	+/- 10% of standard

OTHER METER

METER TYPE							See Notes Below for Additional Information
MODEL NO.							
UNIT ID NO.							

Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
 Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

	Cal. Standard Lot Number	Exp. Date
pH (4)	7GI006	9/19
pH (7)	7GH1000	8/19
pH (10)	---	---
ORP	1600	5/22
Conductivity	7GH1079	8/18
10 Turb. Stan.	A7215	11/18
20 Turb. Stan.	A7227	11/18
100 Turb. Stan.	A7228	11/18
800 Turb. Stan.	A72238	11/18
PID Span Gas	---	---
O ₂ -LEL Span Gas	---	---
DO	---	---

NOTES:

wood.

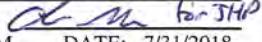
* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-Field Calibration) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additional acceptance criteria obtained from instrument specific manufacturer recommendations.

** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.

1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-Field Calibration), dated 1/19/2010.

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME: Honeywell - Conductorlab Site, Groton, MA
 PROJECT NUMBER: 3617187421
 PROJECT LOCATION: Groton, MA
 WEATHER CONDITIONS (AM): Sunny, temps in ~ 40's
 WEATHER CONDITIONS (PM): Cloudy, temps in ~ 50's

TASK NO: DATE: 4/12/2018
 WOOD CREW: JHP/ SAM
 SAMPLER NAME: Jacob Poirier
 SAMPLER SIGNATURE: 
 CHECKED BY: CTM DATE: 7/31/2018

MULTI-PARAMETER WATER QUALITY METER

METER TYPE	YSI	AM CALIBRATION				PM CALIBRATION CHECK		
		Start Time:	8:30	End Time:	8:45	Start Time:	15:40	End Time:
MODEL NO.	556 MPS	Standard Value	4.0	Meter Value	4.00	*Acceptance Criteria (AM)	7.0	7.09
UNIT ID NO.	10D101665	Units	SU		+/- 0.1 pH Units	240	244.9	+/- 0.3 pH Units
		pH (4)	SU	7.0	+/- 0.1 pH Units	1413	1422	+/- 5% of standard
		pH (7)	SU	10.0	+/- 0.1 pH Units	99.6	97.1	%
		pH (10)	SU	---	+/- 0.1 pH Units	---	---	+/- 0.5 mg/L of sat. value
		Redox	+/- mV	240	+/- 10 mV	DO (<0.1)	---	< 0.5 mg/L
		Sp. Conductivity	µS/cm	1413	+/- 3% of standard	11.89	11.89	°C
		DO (saturated)	%	100	+/- 2% of standard	759.1	759.1	mmHg
		DO (saturated)	mg/L ¹ (see Chart 1)	---	+/- 0.2 mg/L			
		DO (<0.1)	mg/L	<0.1	---			
		Temperature	°C	7.62				
		Baro. Press.	mmHg	757.2				

TURBIDITY METER

METER TYPE	Hach	Model No.	2100Q	Unit ID No.	14050C032688	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
						Standard	NTU	10	9.91	10	+/- 0.3 NTU of stan.
						Standard	NTU	20	20.2	20	+/- 5% of standard
						Standard	NTU	100	100	102	+/- 5% of standard
						Standard	NTU	800	796	806	+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE	Background	ppmv	<0.1	<0.1	within 5 ppmv of BG
MODEL NO.	Span Gas	ppmv	100	100	+/- 10% of standard

O₂-LEL 4 GAS METER

METER TYPE	Methane	%	50	50	+/- 10% of standard
MODEL NO.	O ₂	%	20.9	20.9	+/- 10% of standard
UNIT ID NO.	H ₂ S	ppmv	25	25	+/- 10% of standard
	CO	ppmv	50	50	+/- 10% of standard

OTHER METER

METER TYPE	_____	_____	_____	_____	_____	_____	See Notes Below for Additional Information
MODEL NO.	_____	_____	_____	_____	_____	_____	
UNIT ID NO.	_____	_____	_____	_____	_____	_____	
	_____	_____	_____	_____	_____	_____	

Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
 Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

		Cal. Standard Lot Number	Exp. Date
Deionized Water Source:	Groton Site	pH (4)	7GI006
Lot#/Date Produced:		pH (7)	8/19
Trip Blank Source:	Lab	pH (10)	---
Sample Preservatives Source:	Lab	ORP	1600
Disposable Filter Type:	0.45µm	Conductivity	7GH1079
Calibration Fluids / Standard Source:		10 Turb. Stan.	8/18
- DO Calibration Fluid (<0.1 mg/L)	---	A7195	10/18
- Other	---	20 Turb. Stan.	9/18
- Other	---	100 Turb. Stan.	10/18
- Other	---	800 Turb. Stan.	10/18
		PID Span Gas	---
		O ₂ -LEL Span Gas	---
		DO	---

NOTES:



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** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.

1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-Field Calibration), dated 1/19/2010.

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA		EVENT NAME	April 2018 Semi-Annual		JOB NUMBER	3617187421			
LOCATION ID	CLW-5A		FIELD SAMPLE ID	C041018-CLW5A		CLIENT	Honeywell			
ACTIVITY	START: 9:18	END: 9:55	SAMPLE TIME	9:45		DATE	4/10/2018			
WATER LEVEL / WELL INFORMATION			MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING		PUMP SETTINGS		PID READINGS			
INITIAL DEPTH TO WATER	0.30 feet		PROTECTIVE Casing Stickup (From Ground)	see survey	PRESSURE TO PUMP (psi)	10 psi	PID MODEL	----		
FINAL DEPTH TO WATER	0.30 feet		Casing / Well Difference	see survey	REFILL SETTING	10 seconds	PID WELL MOUTH	----		
WELL DEPTH	6.73 feet		WELL DIAMETER	2 inches	DISCHARGE SETTING	5 seconds	PID AMBIENT AIR	----		
SCREEN LENGTH	5 feet									
WELL DIAMETER FACTORS / VOLUME INFORMATION										
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED			
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611				
DRAWDOWN VOLUME (initial - final x 0.16 (2-inch) or x 0.65 (4-inch))	<0.01 GAL		TOTAL VOL. PURGED	1.00 GAL		<0.01				
(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)										
PURGE DATA										
TIME	DEPTH TO WATER (ft.)	PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY ($\mu\text{S}/\text{cm}$)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS
9:18	0.30	150	Start purge						~ 5 ft.	
9:28	0.30	150	6.34	277	6.40	10.07	17.7	226		
9:33	0.30	150	6.36	224	6.34	9.92	4.40	223		
9:38	0.30	150	6.37	223	6.35	9.88	4.22	223		
9:43	0.30	150	6.34	222	6.35	9.91	4.03	223		
9:45	Collect sample									
EQUIPMENT DOCUMENTATION										
TYPE OF PUMP				TYPE OF TUBING						
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")	<input type="checkbox"/> OTHER _____					<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined)				
<input type="checkbox"/> PERISTALTIC						<input type="checkbox"/> OTHER _____				
ANALYTICAL PARAMETERS										
LAB ANALYSIS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED						
<input checked="" type="checkbox"/> VOCs	SW 846 Method 8260B MCP	HCl / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Hexavalent Chromium	SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Total Chromium	SW 846 6010B MCP	HNO ₃ to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input type="checkbox"/> Sel. Total Metals (Fe)	SW 846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Dissolved Chromium	SW 846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Sel. Dissolved Metals (Fe)	SW 846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> TOC	415.1	H ₂ SO ₄ / 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>						
<input type="checkbox"/> Alkalinity	310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>						
PURGE OBSERVATIONS					MISC. OBSERVATIONS					
PURGE WATER CONTAINERIZED	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	To ground			wood.					
QC INFORMATION					NOTES:					
SAMPLED BY: MAM					Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits: turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (±10 mV)					
FIELD FORM PREP. BY: MAM					CHECK BY: CTM					

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING										
PROJECT	Honeywell Conductorlab Site, Groton, MA			EVENT NAME	April 2018 Semi-Annual			JOB NUMBER	3617187421	
LOCATION ID	CLW-8A			FIELD SAMPLE ID	C040918-CLW8A			CLIENT	Honeywell	
ACTIVITY	START:	13:30	END:	15:00	SAMPLE TIME	14:50			DATE	4/9/2018
WATER LEVEL / WELL INFORMATION				MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING		PUMP SETTINGS		PID READINGS		
INITIAL DEPTH TO WATER	7.01 feet		FINAL DEPTH TO WATER	7.18 feet		PRESSURE TO PUMP (psi)	16 psi	PID MODEL	----	
WELL DEPTH	11.35 feet		PROTECTIVE CASING STICKUP (FROM GROUND)	see survey		REFILL SETTING	10 seconds	PID WELL MOUTH	----	
SCREEN LENGTH	5 feet		CASING / WELL DIFFERENCE	see survey		DISCHARGE SETTING	5 seconds	PID AMBIENT AIR	----	
				WELL DIAMETER	2 inches					
WELL DIAMETER FACTORS / VOLUME INFORMATION										
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED			
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611				
DRAWDOWN VOLUME (initial - final x 0.16 (2-inch) or x 0.65 (4-inch))	0.02 GAL		TOTAL VOL. PURGED	3.50 GAL		<0.01				
(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)										
PURGE DATA										
TIME	DEPTH TO WATER (ft.)	PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY ($\mu\text{S}/\text{cm}$)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	
13:35	Begin purge								~ 9 ft.	
13:45	7.08	200	7.23	245	5.8	1.12	3.19	125.5		
13:50	7.12	200	7.48	242	5.74	0.93	2.87	128.8		
13:55	7.20	200	7.58	240	5.88	0.88	1.14	122.9		
14:10	7.18	200	7.84	232	5.98	0.96	0.97	119.1		
14:20	7.18	200	7.97	231	6.02	1.08	1.09	116.0		
14:30	7.18	200	8.17	230	6.06	1.08	1.02	115.2		
14:35	7.18	200	8.24	229	6.08	1.07	0.97	114.0		
14:40	7.18	200	8.22	229	6.08	1.06	1.12	114.2		
14:45	7.18	200	8.28	229	6.08	1.05	0.81	115.0		
14:50	Collect sample									
EQUIPMENT DOCUMENTATION										
TYPE OF PUMP					TYPE OF TUBING					
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")	<input type="checkbox"/> OTHER _____				<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined)					
<input type="checkbox"/> PERISTALTIC					<input type="checkbox"/> OTHER _____					
ANALYTICAL PARAMETERS										
LAB ANALYSIS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED						
<input checked="" type="checkbox"/> VOCs	SW 846 Method 8260B MCP	HCl / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Hexavalent Chromium	SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Total Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input type="checkbox"/> Sel. Total Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Dissolved Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Sel. Dissolved Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> TOC	415.1	H ₂ SO ₄ / 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>						
<input type="checkbox"/> Alkalinity	310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>						
PURGE OBSERVATIONS _____					MISC. OBSERVATIONS					
PURGE WATER CONTAINERIZED	YES	<input checked="" type="checkbox"/> NO	To ground _____							
QC INFORMATION					NOTES:					
SAMPLED BY: JHP					Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits: turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (±10 mV)					
FIELD FORM PREP. BY: JHP					CHECK BY: CTM					

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA		EVENT NAME	April 2018 Semi-Annual		JOB NUMBER	3617187421			
LOCATION ID	CLW-16B (DUP)		FIELD SAMPLE ID	C0411218-CLW16B		CLIENT	Honeywell			
ACTIVITY	START: 9:52	END: 11:45	SAMPLE TIME	11:45		DATE	4/12/2018			
WATER LEVEL / WELL INFORMATION			MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING		PUMP SETTINGS		PID READINGS			
INITIAL DEPTH TO WATER	6.98 feet	PROTECTIVE CASING STICKUP (FROM GROUND)	see survey		PRESSURE TO PUMP (psi)	20 psi	PID MODEL	----		
FINAL DEPTH TO WATER	23.50 feet	WELL DEPTH	31.90 feet	CASING / WELL DIFFERENCE	see survey		REFILL SETTING	10 seconds		
SCREEN LENGTH	10 feet	WELL DIAMETER	2 inches		DISCHARGE SETTING	5 seconds	PID AMBIENT AIR	----		
WELL DIAMETER FACTORS / VOLUME INFORMATION										
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED			
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611				
DRAWDOWN VOLUME	2.64 GAL		TOTAL VOL. PURGED	5.29 GAL		0.49				
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch)) (purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)										
PURGE DATA										
TIME	DEPTH TO WATER (ft.)	PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY ($\mu\text{S}/\text{cm}$)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS
10:05	9.71	180	9.44	1414	6.20	1.55	220	218.5	~ 30 ft.	
10:10	11.34	180	9.38	1384	6.29	1.24	379	217.3		
10:15	12.69	180	9.42	1369	6.32	1.09	202	217.3		
10:35	16.98	140	10.08	1445	6.41	1.38	49.8	215.5		decrease purge rate
10:55	19.83	140	10.33	1580	6.53	0.97	27.8	212.9		
11:05	21.10	140	10.40	1623	6.56	0.88	20.9	212.1		
11:10	21.71	140	10.29	1653	6.57	0.85	22.4	211.9		
11:15	21.98	140	10.32	1678	6.58	0.83	23.7	211.5		
11:20	22.27	140	10.36	1703	6.59	0.79	16.2	211.0		
11:25	23.00	140	10.39	1728	6.60	0.78	15.2	210.5		
11:30	23.16	140	10.47	1763	6.62	0.75	11.7	209.9		
11:35	23.32	140	10.54	1797	6.63	0.72	11.5	209.3		
11:40	23.50	140	10.60	1821	6.64	0.69	11.4	208.7		
11:45	Collect sample									
EQUIPMENT DOCUMENTATION										
TYPE OF PUMP			TYPE OF TUBING							
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")			<input type="checkbox"/> OTHER _____			<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined)				
<input type="checkbox"/> PERISTALTIC						<input type="checkbox"/> OTHER _____				
ANALYTICAL PARAMETERS										
LAB ANALYSIS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED						
<input checked="" type="checkbox"/> VOCs	SW 846 Method 8260B MCP	HCl / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Hexavalent Chromium	SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Total Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input type="checkbox"/> Sel. Total Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Dissolved Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Sel. Dissolved Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> TOC	415.1	H ₂ SO ₄ / 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>						
<input type="checkbox"/> Alkalinity	310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>						
PURGE OBSERVATIONS Black flakes in purge water; Sulfur-like odor					MISC. OBSERVATIONS DUP collected					
PURGE WATER CONTAINERIZED YES <input type="checkbox"/> NO To ground					wood.					
QC INFORMATION SAMPLED BY: SAM					NOTES: Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits: turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (± 10 mV)					
FIELD FORM PREP. BY: SAM					FIELD FORM CHECK BY: CTM					

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING										
PROJECT	Honeywell Conductorlab Site, Groton, MA			EVENT NAME	April 2018 Semi-Annual			JOB NUMBER	3617187421	
LOCATION ID	DMW-A			FIELD SAMPLE ID	C040918-DMWA			CLIENT	Honeywell	
ACTIVITY	START:	11:30	END:	13:30	SAMPLE TIME	13:15			DATE	4/9/2018
WATER LEVEL / WELL INFORMATION				MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING		PUMP SETTINGS			PID READINGS	
INITIAL DEPTH TO WATER	3.16 feet			PROTECTIVE Casing Stickup (From Ground)	see survey	PRESSURE TO PUMP (psi)	18	psi	PID MODEL	----
FINAL DEPTH TO WATER	3.95 feet			WELL DEPTH	14.61 feet	REFILL SETTING	10	seconds	PID WELL MOUTH	----
WELL DEPTH	14.61 feet			CASING / WELL DIFFERENCE	see survey	DISCHARGE SETTING	5	seconds	PID AMBIENT AIR	----
SCREEN LENGTH	5 feet			WELL DIAMETER	2 inches					
WELL DIAMETER FACTORS / VOLUME INFORMATION										
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0				
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611				
DRAWDOWN VOLUME (initial - final x 0.16 (2-inch) or x 0.65 (4-inch))				TOTAL VOL. PURGED 0.12 GAL			RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED 6.92 GAL 0.02			
PURGE DATA										
TIME	DEPTH TO WATER (ft.)	PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY ($\mu\text{S}/\text{cm}$)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS
11:35	Begin purge									~ 10 ft.
11:45	3.85	280	6.60	334	6.66	0.78	155	62.8		
11:50	3.90	280	6.68	322	6.30	0.43	90.8	65.5		
11:55	3.93	280	6.94	323	6.33	0.41	54.0	53.6		
12:10	3.95	280	7.06	327	6.44	0.43	21.2	27.2		
12:25	3.95	280	7.33	330	6.47	0.68	11.2	16.6		
12:35	3.95	280	7.38	331	6.49	1.09	6.25	12.9		
12:50	3.95	280	7.47	332	6.50	1.02	4.98	10.2		
13:00	3.95	280	7.66	333	6.51	1.00	3.46	7.9		
13:05	3.95	280	7.70	334	6.51	0.97	3.10	6.9		
13:10	3.95	280	7.72	333	6.51	0.96	2.84	5.8		
13:15	Collect sample									
EQUIPMENT DOCUMENTATION										
TYPE OF PUMP					TYPE OF TUBING					
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")		<input type="checkbox"/> OTHER _____			<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined)		<input type="checkbox"/> OTHER _____			
ANALYTICAL PARAMETERS										
LAB ANALYSIS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED						
<input checked="" type="checkbox"/> VOCs	SW 846 Method 8260B MCP	HCL / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Hexavalent Chromium	SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Total Chromium	SW 846 6010B MCP	HNO ₃ to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input type="checkbox"/> Sel. Total Metals (Fe)	SW 846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Dissolved Chromium	SW 846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Sel. Dissolved Metals (Fe)	SW 846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> TOC	415.1	H ₂ SO ₄ / 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>						
<input type="checkbox"/> Alkalinity	310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>						
PURGE OBSERVATIONS					MISC. OBSERVATIONS					
PURGE WATER CONTAINERIZED					MISC. OBSERVATIONS					
YES	<input checked="" type="checkbox"/>	To ground								
QC INFORMATION					NOTES:					
SAMPLED BY: JHP					Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits: turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (± 10 mV)					
FIELD FORM PREP. BY: JHP					FIELD FORM CHECK BY: CTM					

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA		EVENT NAME	April 2018 Semi-Annual		JOB NUMBER	3617187421			
LOCATION ID	DMW-B		FIELD SAMPLE ID	C040918-DMWB		CLIENT	Honeywell			
ACTIVITY	START: 9:40	END: 11:30	SAMPLE TIME	11:20		DATE	4/9/2018			
WATER LEVEL / WELL INFORMATION			MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING		PUMP SETTINGS		PID READINGS			
INITIAL DEPTH TO WATER	3.52 feet	PROTECTIVE CASING STICKUP (FROM GROUND)	see survey		PRESSURE TO PUMP (psi)	20 psi	PID MODEL	----		
FINAL DEPTH TO WATER	10.37 feet	WELL DEPTH	32.31 feet	CASING / WELL DIFFERENCE	REFILL SETTING		10 seconds	PID WELL MOUTH	----	
SCREEN LENGTH	10 feet	WELL DIAMETER	2 inches	DISCHARGE SETTING	5 seconds		PID AMBIENT AIR	----		
WELL DIAMETER FACTORS / VOLUME INFORMATION										
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED			
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611				
DRAWDOWN VOLUME	1.10 GAL		TOTAL VOL. PURGED	3.98 GAL		0.27				
(initial - final x 0.16 [2-inch] or x 0.65 [4-inch])										
PURGE DATA										
TIME	DEPTH TO WATER (ft.)	PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY ($\mu\text{S}/\text{cm}$)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS
9:50	Begin purge								~ 26 ft.	
10:00	5.74	220	7.69	572	7.43	0.76	18.1	88.7		
10:05	6.50	180	7.67	574	7.46	0.64	15.7	77.6		
10:10	6.84	180	7.13	579	7.47	0.67	16.1	69.4		
10:20	8.11	180	7.18	577	7.47	0.59	14.2	43.2		
10:30	8.70	180	7.10	576	7.47	0.53	12.4	27.1		
10:40	9.30	180	7.18	573	7.49	0.55	10.3	9.9		
10:50	9.72	180	7.41	569	7.51	0.54	9.79	-4.6		
11:00	10.08	180	7.97	564	7.53	0.52	7.52	-16.5		
11:05	10.25	180	8.26	561	7.53	0.50	5.94	-23.6		
11:10	10.30	180	8.27	562	7.53	0.49	6.10	-26.1		
11:15	10.37	180	8.30	561	7.53	0.47	5.87	-27.9		
11:20	Collect sample									
EQUIPMENT DOCUMENTATION										
TYPE OF PUMP			TYPE OF TUBING							
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")			<input type="checkbox"/> OTHER _____			<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined)				
<input type="checkbox"/> PERISTALTIC						<input type="checkbox"/> OTHER _____				
ANALYTICAL PARAMETERS										
LAB ANALYSIS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED						
<input checked="" type="checkbox"/> VOCs	SW 846 Method 8260B MCP	HCl / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Hexavalent Chromium	SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Total Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input type="checkbox"/> Sel. Total Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Dissolved Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Sel. Dissolved Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> TOC	415.1	H ₂ SO ₄ / 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>						
<input type="checkbox"/> Alkalinity	310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>						
PURGE OBSERVATIONS					MISC. OBSERVATIONS					
PURGE WATER CONTAINERIZED YES <input type="checkbox"/> NO To ground _____					wood.					
QC INFORMATION					NOTES:					
SAMPLED BY: JHP					Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits: turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (± 10 mV)					
FIELD FORM PREP. BY: JHP					FIELD FORM CHECK BY: CTM					

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA	EVENT NAME	April 2018 Semi-Annual	JOB NUMBER	3617187421					
LOCATION ID	PP-2	FIELD SAMPLE ID	C041118-PP2	CLIENT	Honeywell					
ACTIVITY	START: 13:02 END: 15:15	SAMPLE TIME	15:00	DATE	4/11/2018					
WATER LEVEL / WELL INFORMATION		MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING	PUMP SETTINGS		PID READINGS					
INITIAL DEPTH TO WATER	4.80 feet	PROTECTIVE CASING STICKUP (FROM GROUND)	see survey	PRESSURE TO PUMP (psi)	10 psi					
FINAL DEPTH TO WATER	7.50 feet	CASING / WELL DIFFERENCE	see survey	REFILL SETTING	10 seconds					
WELL DEPTH	16.90 feet	WELL DIAMETER	2 inches	DISCHARGE SETTING	5 seconds					
SCREEN LENGTH	5 feet									
WELL DIAMETER FACTORS / VOLUME INFORMATION										
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED			
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611				
DRAWDOWN VOLUME	0.43	GAL	TOTAL VOL. PURGED	3.23	GAL	0.13	(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))			
PURGE DATA		PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY (µS/cm)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS
TIME	DEPTH TO WATER (ft.)									
13:02	4.80	110	Start purge							~ 15 ft.
13:12	5.55	110	10.62	234	6.35	7.68	291	169		
13:22	5.55	110	9.07	234	6.14	8.27	290	180		
13:38	7.50	110	8.85	237	6.13	7.80	175	189		
13:52	7.50	110	8.56	260	6.15	6.46	140	191		
14:08	7.50	110	8.54	269	6.15	5.63	112	192		
14:25	7.50	110	8.30	287	6.17	6.18	87.1	192		
14:35	7.50	110	8.13	294	6.22	6.20	77.1	192		
14:45	7.50	110	8.26	299	6.22	5.96	68.1	191		
14:50	7.50	110	8.50	302	6.23	5.73	73.1	190		
14:55	7.50	110	8.76	303	6.27	5.52	72.1	189		
15:00	Collect sample									
EQUIPMENT DOCUMENTATION										
TYPE OF PUMP		TYPE OF TUBING								
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")		<input type="checkbox"/> OTHER _____								
<input type="checkbox"/> PERISTALTIC		<input type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined) <input type="checkbox"/> OTHER _____								
ANALYTICAL PARAMETERS										
LAB ANALYSIS		METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED					
<input checked="" type="checkbox"/> VOCs		SW 846 Method 8260B MCP	HCL / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>					
<input checked="" type="checkbox"/> Hexavalent Chromium		SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>					
<input checked="" type="checkbox"/> Total Chromium		SW846 6010B MCP	HNO ₃ to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>					
<input type="checkbox"/> Sel. Total Metals (Fe)		SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>					
<input type="checkbox"/> Dissolved Chromium		SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>					
<input type="checkbox"/> Sel. Dissolved Metals (Fe)		SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>					
<input type="checkbox"/> TOC		415.1	H ₂ SO ₄ / 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>					
<input type="checkbox"/> Alkalinity		310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>					
PURGE OBSERVATIONS					MISC. OBSERVATIONS					
PURGE WATER CONTAINERIZED YES <input type="checkbox"/> NO To ground					MISC. OBSERVATIONS					
					wood.					
QC INFORMATION					NOTES:					
SAMPLED BY: MAM					Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits: turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (± 10 mV)					
FIELD FORM PREP. BY: MAM					FIELD FORM CHECK BY: CTM					

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA		EVENT NAME	April 2018 Semi-Annual		JOB NUMBER	3617187421			
LOCATION ID	PP-3		FIELD SAMPLE ID	C041218-PP3		CLIENT	Honeywell			
ACTIVITY	START: 9:55	END: 11:10	SAMPLE TIME	11:00		DATE	4/12/2018			
WATER LEVEL / WELL INFORMATION			MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING	PUMP SETTINGS			PID READINGS			
INITIAL DEPTH TO WATER	11.94 feet	PROTECTIVE CASING STICKUP (FROM GROUND)	see survey	PRESSURE TO PUMP (psi)	17 psi	PID MODEL	----			
FINAL DEPTH TO WATER	14.39 feet	CASING / WELL DIFFERENCE	see survey	REFILL SETTING	10 seconds	PID WELL MOUTH	----			
WELL DEPTH	24.74 feet	WELL DIAMETER	2 inches	DISCHARGE SETTING	5 seconds	PID AMBIENT AIR	----			
SCREEN LENGTH	5 feet									
WELL DIAMETER FACTORS / VOLUME INFORMATION										
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED			
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611				
DRAWDOWN VOLUME	0.39 GAL		TOTAL VOL. PURGED	3.00 GAL		0.13				
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))										
PURGE DATA										
TIME	DEPTH TO WATER (ft.)	PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY (μ S/cm)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS
10:03	Begin purge								~ 22 ft.	
10:10	13.12	160	8.63	704	6.91	1.35	4.39	35.8		
10:20	13.71	160	8.69	695	6.99	0.84	3.11	13.8		
10:30	14.10	160	8.79	696	7.02	0.75	1.60	11.9		
10:45	14.34	160	8.94	699	7.04	0.67	1.15	14.0		
10:50	14.37	160	9.01	699	7.04	0.63	1.22	14.9		
10:55	14.39	160	9.03	699	7.04	0.62	1.07	15.6		
11:00	Collect sample									
EQUIPMENT DOCUMENTATION										
TYPE OF PUMP				TYPE OF TUBING						
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")		<input type="checkbox"/> OTHER _____		<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined)		<input type="checkbox"/> OTHER _____				
ANALYTICAL PARAMETERS										
LAB ANALYSIS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED						
<input checked="" type="checkbox"/> VOCs	SW 846 Method 8260B MCP	HCl / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Hexavalent Chromium	SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Total Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input type="checkbox"/> Sel. Total Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Dissolved Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Sel. Dissolved Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> TOC	415.1	H ₂ SO ₄ / 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>						
<input type="checkbox"/> Alkalinity	310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>						
PURGE OBSERVATIONS				MISC. OBSERVATIONS						
PURGE WATER CONTAINERIZED YES <input type="checkbox"/> NO To ground				wood.						
QC INFORMATION				NOTES:						
SAMPLED BY: JHP				Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits: turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (± 10 mV)						
FIELD FORM PREP. BY: JHP		FIELD FORM CHECK BY: CTM								

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA		EVENT NAME	April 2018 Semi-Annual		JOB NUMBER	3617187421			
LOCATION ID	PP-4A		FIELD SAMPLE ID	C041218-PP4A		CLIENT	Honeywell			
ACTIVITY	START: 11:10	END: 12:15	SAMPLE TIME	12:05		DATE	4/12/2018			
WATER LEVEL / WELL INFORMATION			MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING	PUMP SETTINGS			PID READINGS			
INITIAL DEPTH TO WATER	9.89 feet	PROTECTIVE CASING STICKUP (FROM GROUND)	see survey	PRESSURE TO PUMP (psi)	18 psi	PID MODEL	----			
FINAL DEPTH TO WATER	10.95 feet	CASING / WELL DIFFERENCE	see survey	REFILL SETTING	10 seconds	PID WELL MOUTH	----			
WELL DEPTH	24.15 feet	WELL DIAMETER	2 inches	DISCHARGE SETTING	5 seconds	PID AMBIENT AIR	----			
SCREEN LENGTH	5 feet									
WELL DIAMETER FACTORS / VOLUME INFORMATION										
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED			
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611				
DRAWDOWN VOLUME	0.16 GAL		TOTAL VOL. PURGED	1.56 GAL		0.10				
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))										
PURGE DATA										
TIME	DEPTH TO WATER (ft.)	PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY (μ S/cm)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS
11:20	Begin purge								~ 22 ft.	
11:25	10.60	150	9.20	490	7.16	1.45	44.5	73.7		
11:30	10.74	150	9.07	484	7.04	0.72	38.4	65.6		
11:40	10.91	150	9.21	478	7.12	0.53	18.6	47.4		
11:50	10.93	150	9.26	477	7.15	0.56	21.4	37.6		
11:55	10.94	150	9.22	477	7.15	0.53	22.1	34.9		
12:00	10.95	150	9.21	477	7.15	0.51	20.2	31.7		
12:05	Collect sample									
EQUIPMENT DOCUMENTATION										
TYPE OF PUMP			TYPE OF TUBING							
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")	<input type="checkbox"/> OTHER _____	<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined)								
<input type="checkbox"/> PERISTALTIC		<input type="checkbox"/> OTHER _____								
ANALYTICAL PARAMETERS										
LAB ANALYSIS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED						
<input checked="" type="checkbox"/> VOCs	SW 846 Method 8260B MCP	HCl / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Hexavalent Chromium	SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Total Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input type="checkbox"/> Sel. Total Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Dissolved Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Sel. Dissolved Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> TOC	415.1	H ₂ SO ₄ / 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>						
<input type="checkbox"/> Alkalinity	310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>						
PURGE OBSERVATIONS			MISC. OBSERVATIONS							
PURGE WATER CONTAINERIZED YES <input type="checkbox"/> NO To ground _____			wood.							
QC INFORMATION			NOTES:							
SAMPLED BY: JHP			Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits: turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (± 10 mV)							
FIELD FORM PREP. BY: JHP			FIELD FORM CHECK BY: CTM							

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA		EVENT NAME	April 2018 Semi-Annual		JOB NUMBER	3617187421			
LOCATION ID	PP-4B		FIELD SAMPLE ID	C041218-PP4B		CLIENT	Honeywell			
ACTIVITY	START: 12:15	END: 14:00	SAMPLE TIME	13:50		DATE	4/12/2018			
WATER LEVEL / WELL INFORMATION			MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING	PUMP SETTINGS			PID READINGS			
INITIAL DEPTH TO WATER	9.95 feet	PROTECTIVE CASING STICKUP (FROM GROUND)	see survey	PRESSURE TO PUMP (psi)	20 psi	PID MODEL	----			
FINAL DEPTH TO WATER	18.74 feet	CASING / WELL DIFFERENCE	see survey	REFILL SETTING	10 seconds	PID WELL MOUTH	----			
WELL DEPTH	33.53 feet	WELL DIAMETER	2 inches	DISCHARGE SETTING	5 seconds	PID AMBIENT AIR	----			
SCREEN LENGTH	5 feet									
WELL DIAMETER FACTORS / VOLUME INFORMATION										
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED			
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611				
DRAWDOWN VOLUME	1.40 GAL		TOTAL VOL. PURGED	2.20 GAL		0.63				
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))										
PURGE DATA										
TIME	DEPTH TO WATER (ft.)	PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY (μ S/cm)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS
12:22	Begin purge								~ 30 ft.	
12:30	10.01	100	11.74	1746	6.98	5.87	29.4	89.5		
12:35	10.47	100	11.80	1747	6.99	5.31	18.9	82.1		
12:45	12.10	100	12.10	1686	7.30	5.43	11.5	62.4		
12:55	13.31	100	12.34	1670	7.42	5.45	7.54	54.6		
13:05	14.50	100	12.56	1663	7.46	5.44	5.24	50.0		
13:15	15.75	100	12.02	1673	7.42	5.58	4.30	48.9		
13:25	16.93	100	11.50	1676	7.38	5.56	4.10	47.8		
13:35	18.15	100	11.51	1678	7.38	5.50	3.81	44.9		
13:40	18.60	100	11.55	1678	7.38	5.48	3.60	44.1		
13:45	18.74	100	11.53	1679	7.38	5.47	3.79	43.7		
13:50	Collect sample									
EQUIPMENT DOCUMENTATION										
TYPE OF PUMP			TYPE OF TUBING							
<input type="checkbox"/> QED SAMPLE PRO (1-3/4")			<input type="checkbox"/> OTHER _____							
<input checked="" type="checkbox"/> PERISTALTIC			<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined) <input type="checkbox"/> OTHER _____							
ANALYTICAL PARAMETERS										
LAB ANALYSIS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED						
<input checked="" type="checkbox"/> VOCs	SW 846 Method 8260B MCP	HCl / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Hexavalent Chromium	SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Total Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input type="checkbox"/> Sel. Total Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Dissolved Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Sel. Dissolved Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> TOC	415.1	H ₂ SO ₄ / 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>						
<input type="checkbox"/> Alkalinity	310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>						
PURGE OBSERVATIONS			MISC. OBSERVATIONS							
PURGE WATER CONTAINERIZED			MISC. OBSERVATIONS							
YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> To ground										
QC INFORMATION			NOTES:							
SAMPLED BY: JHP			Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits: turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (± 10 mV)							
FIELD FORM PREP. BY: JHP			FIELD FORM CHECK BY: CTM							

wood.

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA		EVENT NAME	April 2018 Semi-Annual		JOB NUMBER	3617187421			
LOCATION ID	OSW-1A		FIELD SAMPLE ID	C041018-OSW1A		CLIENT	Honeywell			
ACTIVITY	START:	12:33	END:	13:45	SAMPLE TIME	13:35		DATE	4/10/2018	
WATER LEVEL / WELL INFORMATION			MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING		PUMP SETTINGS		PID READINGS			
INITIAL DEPTH TO WATER	2.35 feet		PROTECTIVE CASING STICKUP (FROM GROUND)	see survey		PRESSURE TO PUMP (psi)	10 psi		PID MODEL	----
FINAL DEPTH TO WATER	2.37 feet				REFILL SETTING	10 seconds		PID WELL MOUTH	----	
WELL DEPTH	10.20 feet		CASING / WELL DIFFERENCE	see survey		DISCHARGE SETTING	5 seconds		PID AMBIENT AIR	----
SCREEN LENGTH	5 feet		WELL DIAMETER	2 inches						
WELL DIAMETER FACTORS / VOLUME INFORMATION										
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED			
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611				
DRAWDOWN VOLUME	<0.01 GAL		TOTAL VOL. PURGED	1.78 GAL		<0.01				
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))										
PURGE DATA										
TIME	DEPTH TO WATER (ft.)	PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY (μ S/cm)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS
12:33	2.35	120	Start purge						~ 9 ft.	
12:43	2.37	120	6.84	275	6.45	7.52	25.2	93		
12:55	2.37	120	6.73	235	6.36	7.25	12.1	135		
13:10	2.37	120	6.66	231	6.35	6.96	6.98	149		
13:15	2.37	120	6.66	230	6.35	10.01	5.35	151		
13:20	2.37	120	6.66	227	6.35	10.00	4.11	154		
13:25	2.37	120	6.66	227	6.36	10.10	4.22	157		
13:30	2.37	120	6.68	226	6.36	10.70	4.01	158		
13:35	Collect sample									
EQUIPMENT DOCUMENTATION										
TYPE OF PUMP			TYPE OF TUBING							
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")	<input type="checkbox"/> OTHER _____	<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined)								
<input type="checkbox"/> PERISTALTIC		<input type="checkbox"/> OTHER _____								
ANALYTICAL PARAMETERS										
LAB ANALYSIS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED						
<input checked="" type="checkbox"/> VOCs	SW 846 Method 8260B MCP	HCl / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Hexavalent Chromium	SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Total Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input type="checkbox"/> Sel. Total Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Dissolved Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Sel. Dissolved Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> TOC	415.1	H ₂ SO ₄ / 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>						
<input type="checkbox"/> Alkalinity	310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>						
PURGE OBSERVATIONS			MISC. OBSERVATIONS							
PURGE WATER CONTAINERIZED	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	To ground	wood.							
QC INFORMATION			NOTES:							
SAMPLED BY: MAM			Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits: turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (\pm 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (\pm 10 mV)							
FIELD FORM	FIELD FORM									
PREP. BY: MAM	CHECK BY: CTM									

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA		EVENT NAME	April 2018 Semi-Annual		JOB NUMBER	3617187421																																																																																																																																																																																																																																																																																																																																																																																																																																							
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ACTIVITY	START:	10:14	END:	12:25	SAMPLE TIME	12:15		DATE	4/10/2018																																																																																																																																																																																																																																																																																																																																																																																																																																					
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FINAL DEPTH TO WATER	6.71 feet				REFILL SETTING	10 seconds		PID WELL MOUTH	----																																																																																																																																																																																																																																																																																																																																																																																																																																					
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WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA	EVENT NAME	April 2018 Semi-Annual	JOB NUMBER	3617187421
LOCATION ID	OSW-2B	FIELD SAMPLE ID	C041218-OSW2B	CLIENT	Honeywell
ACTIVITY	START: 13:44 END: 15:27	SAMPLE TIME	15:27	DATE	4/12/2018

WATER LEVEL / WELL INFORMATION		MEASUREMENT POINT		PUMP SETTINGS		PID READINGS	
INITIAL DEPTH TO WATER	3.41 feet	<input checked="" type="checkbox"/> TOP OF WELL RISER	<input type="checkbox"/> TOP OF CASING	PRESSURE TO PUMP (psi)	15 psi	PID MODEL	---
FINAL DEPTH TO WATER	3.41 feet	PROTECTIVE CASING STICKUP (FROM GROUND)	see survey	REFILL SETTING	10 seconds	PID WELL MOUTH	---
WELL DEPTH	23.31 feet	CASING / WELL DIFFERENCE	see survey	DISCHARGE SETTING	5 seconds	PID AMBIENT AIR	---
SCREEN LENGTH	5 feet	WELL DIAMETER	2 inches				

WELL DIAMETER FACTORS / VOLUME INFORMATION

DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611

RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED

DRAW DOWN VOLUME <0.01 GAL
 (initial - final x 0.16 (2-inch) or x 0.65 (4-inch))

TOTAL VOL.
 PURGED 4.12 GAL
 (purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)

<0.01

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

QED SAMPLE PRO (1-3/4")

PERISTALTIC

OTHER

TYPE OF TUBING

LOW DENSITY POLYETHYLENE (Teflon-lined)

OTHER _____

ANALYTICAL PARAMETERS

<u>LAB ANALYSIS</u>	<u>METHOD NUMBER</u>	<u>PRESERVATION METHOD</u>	<u>VOLUME REQUIRED</u>	<u>SAMPLE COLLECTED</u>
<input checked="" type="checkbox"/> VOCs	SW 846 Method 8260B MCP	HCL / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Hexavalent Chromium	SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Total Chromium	SW846 6010B MCP	HNO3 to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>
<input type="checkbox"/> Sel. Total Metals (Fe)	SW846 6010B MCP	HNO3 to pH <2	1 X 500 mL P	<input type="checkbox"/>
<input type="checkbox"/> Dissolved Chromium	SW846 6010B MCP	HNO3 to pH <2	1 X 500 mL P	<input type="checkbox"/>
<input type="checkbox"/> Sel. Dissolved Metals (Fe)	SW846 6010B MCP	HNO3 to pH <2	1 X 500 mL P	<input type="checkbox"/>
<input type="checkbox"/> TOC	415.1	H2SO4/ 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>
<input type="checkbox"/> Alkalinity	310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>

PUBGF OBSERVATIONS

**PURGE WATER
CONTAINERIZED** **YES** **NO** _____
To ground

MISC. OBSERVATIONS

wood.

QC INFORMATION

SAMPLED BY: SAM

NOTES:

NOTES: Stabilization is considered to be achieved when three consecutive readings are taken at 5

Stabilization is considered to be achieved when three consecutive readings are taken at 1 minute intervals and are within the following limits:
turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C),

FIELD FORM
PREP. BY: SAM

FIELD FORM
CHECK BY: CTM

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA		EVENT NAME	April 2018 Semi-Annual		JOB NUMBER	3617187421			
LOCATION ID	OSW-3A		FIELD SAMPLE ID	C041218-OSW3A		CLIENT	Honeywell			
ACTIVITY	START:	12:34	END:	13:23	SAMPLE TIME	13:23		DATE	4/12/2018	
WATER LEVEL / WELL INFORMATION			MEASUREMENT POINT <input type="checkbox"/> TOP OF WELL RISER <input checked="" type="checkbox"/> TOP OF CASING		PUMP SETTINGS		PID READINGS			
INITIAL DEPTH TO WATER	5.51 feet		PROTECTIVE CASING STICKUP (FROM GROUND)	see survey		PRESSURE TO PUMP (psi)	10 psi		PID MODEL	----
FINAL DEPTH TO WATER	7.81 feet				REFILL SETTING	10 seconds		PID WELL MOUTH	----	
WELL DEPTH	14.52 feet		CASING / WELL DIFFERENCE	see survey		DISCHARGE SETTING	5 seconds		PID AMBIENT AIR	----
SCREEN LENGTH	5 feet		WELL DIAMETER	2 inches						
WELL DIAMETER FACTORS / VOLUME INFORMATION										
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED			
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611				
DRAWDOWN VOLUME	0.36 GAL		TOTAL VOL. PURGED	1.83 GAL		0.20				
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))										
PURGE DATA										
TIME	DEPTH TO WATER (ft.)	PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY ($\mu\text{S}/\text{cm}$)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS
12:48	8.59	144	10.51	278	5.96	6.04	4.08	211.7	~ 12 ft.	
12:53	8.28	144	9.86	254	5.78	1.33	2.41	219.4		
12:58	8.11	144	9.55	230	5.71	1.18	1.96	220.6		
13:08	7.92	144	9.62	215	5.65	1.14	1.73	220.8		
13:13	7.85	144	9.61	215	5.64	1.15	1.64	221.3		
13:18	7.81	144	9.60	211	5.62	1.19	1.55	221.7		
13:23	Collect sample									
EQUIPMENT DOCUMENTATION										
TYPE OF PUMP		TYPE OF TUBING								
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")		<input type="checkbox"/> OTHER _____ <input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined)								
<input type="checkbox"/> PERISTALTIC		<input type="checkbox"/> OTHER _____								
ANALYTICAL PARAMETERS										
LAB ANALYSIS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED						
<input checked="" type="checkbox"/> VOCs	SW 846 Method 8260B MCP	HCl / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Hexavalent Chromium	SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Total Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input type="checkbox"/> Sel. Total Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Dissolved Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Sel. Dissolved Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> TOC	415.1	H ₂ SO ₄ / 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>						
<input type="checkbox"/> Alkalinity	310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>						
PURGE OBSERVATIONS					MISC. OBSERVATIONS					
PURGE WATER CONTAINERIZED YES <input type="checkbox"/> NO To ground _____					MISC. OBSERVATIONS					
					wood.					
QC INFORMATION					NOTES:					
SAMPLED BY: SAM					Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits: turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (± 10 mV)					
FIELD FORM PREP. BY: SAM					FIELD FORM CHECK BY: CTM					

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA		EVENT NAME	April 2018 Semi-Annual		JOB NUMBER	3617187421			
LOCATION ID	OSW-3B		FIELD SAMPLE ID	C041218-OSW3B		CLIENT	Honeywell			
ACTIVITY	START:	14:10	END:	15:50	SAMPLE TIME	15:40		DATE	4/12/2018	
WATER LEVEL / WELL INFORMATION			MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING		PUMP SETTINGS		PID READINGS			
INITIAL DEPTH TO WATER	6.09 feet		PROTECTIVE CASING STICKUP (FROM GROUND)	see survey		PRESSURE TO PUMP (psi)	19 psi		PID MODEL	----
FINAL DEPTH TO WATER	20.70 feet				REFILL SETTING	10 seconds		PID WELL MOUTH	----	
WELL DEPTH	31.97 feet		CASING / WELL DIFFERENCE	see survey		DISCHARGE SETTING	5 seconds		PID AMBIENT AIR	----
SCREEN LENGTH	5 feet		WELL DIAMETER	2 inches						
WELL DIAMETER FACTORS / VOLUME INFORMATION										
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED			
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611				
DRAWDOWN VOLUME	2.30 GAL		TOTAL VOL. PURGED	2.50 GAL						0.92
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))										
PURGE DATA										
TIME	DEPTH TO WATER (ft.)	PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY (μ S/cm)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS
14:17	Begin purge								~ 29 ft.	
14:25	6.48	120	10.08	1822	6.70	1.27	115	-29.7		
14:30	7.31	120	9.97	1703	6.75	0.62	240	-46.0		orange tint/ flakes
14:40	10.05	120	9.32	1236	6.71	0.61	608	-32.7		
14:50	11.62	120	9.06	1174	6.68	0.82	391	-18.1		
15:00	13.79	120	9.01	1147	6.70	1.31	250	-6.2		
15:10	15.20	120	8.95	1148	6.71	2.05	188	-2.4		
15:20	17.22	120	9.09	1150	6.73	1.6	135	-2.1		
15:25	18.20	120	9.33	1154	6.75	1.37	126	-4.7		
15:30	19.40	120	9.40	1160	6.75	1.20	112	-5.8		
15:35	20.07	120	9.42	1162	6.75	1.12	107	-6.4		
15:40	Collect sample									
EQUIPMENT DOCUMENTATION										
TYPE OF PUMP			TYPE OF TUBING							
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")			<input type="checkbox"/> OTHER _____			<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined)				
<input type="checkbox"/> PERISTALTIC						<input type="checkbox"/> OTHER _____				
ANALYTICAL PARAMETERS										
LAB ANALYSIS		METHOD NUMBER	PRESERVATION METHOD		VOLUME REQUIRED	SAMPLE COLLECTED				
<input checked="" type="checkbox"/> VOCs		SW 846 Method 8260B MCP	HCl / 4 DEG. C		3 X 40 mL VOA	<input checked="" type="checkbox"/>				
<input checked="" type="checkbox"/> Hexavalent Chromium		SW 846 Method 7196A MCP	4 DEG. C		1 X 250 mL P	<input checked="" type="checkbox"/>				
<input checked="" type="checkbox"/> Total Chromium		SW846 6010B MCP	HNO ₃ to pH <2		1 X 250 mL P	<input checked="" type="checkbox"/>				
<input type="checkbox"/> Sel. Total Metals (Fe)		SW846 6010B MCP	HNO ₃ to pH <2		1 X 500 mL P	<input type="checkbox"/>				
<input type="checkbox"/> Dissolved Chromium		SW846 6010B MCP	HNO ₃ to pH <2		1 X 500 mL P	<input type="checkbox"/>				
<input type="checkbox"/> Sel. Dissolved Metals (Fe)		SW846 6010B MCP	HNO ₃ to pH <2		1 X 500 mL P	<input type="checkbox"/>				
<input type="checkbox"/> TOC		415.1	H ₂ SO ₄ / 4 DEG. C		2 X 40 mL VOA	<input type="checkbox"/>				
<input type="checkbox"/> Alkalinity		310.1	4 DEG. C		1 X 500 mL P	<input type="checkbox"/>				
PURGE OBSERVATIONS						MISC. OBSERVATIONS				
PURGE WATER CONTAINERIZED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO To ground						wood.				
QC INFORMATION						NOTES:				
SAMPLED BY: JHP						Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits: turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (\pm 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (\pm 10 mV)				
FIELD FORM			FIELD FORM			CHECK BY: CTM				
PREP. BY: JHP										

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA	EVENT NAME	April 2018 Semi-Annual	JOB NUMBER	3617187421
LOCATION ID	OSW-4i	FIELD SAMPLE ID	C041118-OSW4i	CLIENT	Honeywell
ACTIVITY	START: 10:50 END: 12:35	SAMPLE TIME	12:25	DATE	4/11/2018

WATER LEVEL / WELL INFORMATION		MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING	PUMP SETTINGS		PID READINGS	
INITIAL DEPTH TO WATER	2.35 feet		PRESSURE TO PUMP (psi)	10 psi	PID MODEL	---
FINAL DEPTH TO WATER	3.20 feet	PROTECTIVE CASING STICKUP (FROM GROUND) <input type="checkbox"/> see survey	REFILL SETTING	10 seconds	PID WELL MOUTH	---
WELL DEPTH	17.24 feet	CASING / WELL DIFFERENCE <input type="checkbox"/> see survey	DISCHARGE SETTING	5 seconds	PID AMBIENT AIR	---
SCREEN LENGTH	5 feet	WELL DIAMETER <input type="checkbox"/> 2 inches				

WELL DIAMETER FACTORS / VOLUME INFORMATION

DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611

RATIO OF DRAWDOWN VOLUME
TO VOLUME PURGED

DRAWDOWN VOLUME (initial - final x 0.16 (2-inch) or x 0.65 (4-inch))	0.01	GAL	TOTAL VOL. PURGED (purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)	2.34	GAL	<0.01
---	------	-----	--	------	-----	-------

PURGE DATA		PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY (µS/cm)	pH (units)	DISS. O2 (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS
TIME	DEPTH TO WATER (ft.)									
10:50	2.35	100	Start purge						~ 16 ft.	
11:00	3.10	100	8.61	374	6.42	0.93	188	197		
11:10	3.20	100	8.80	369	6.36	0.55	108	199		
11:20	3.20	100	8.81	366	6.33	0.39	68.3	200		
11:30	3.20	100	9.06	363	6.32	0.36	47.1	200		
11:40	3.20	100	8.90	362	6.32	0.34	28.3	201		
11:50	3.20	100	9.11	361	6.30	0.30	25.7	201		
11:55	3.20	100	8.97	362	6.30	0.37	19.0	202		
12:00	3.20	100	9.91	361	6.29	0.38	19.8	201		
12:05	3.20	100	9.05	360	6.28	0.31	11.5	201		
12:10	3.20	100	9.04	359	6.27	0.31	9.35	202		
12:15	3.20	100	9.02	359	6.24	0.39	9.40	202		
12:20	3.20	100	8.97	359	6.26	0.40	9.31	202		
12:25	Collect sample									

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

- QED SAMPLE PRO (1-3/4")
 PERISTALTIC

 OTHER _____

TYPE OF TUBING

- LOW DENSITY POLYETHYLENE (Teflon-lined)
 OTHER _____

ANALYTICAL PARAMETERS

LAB ANALYSIS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
<input checked="" type="checkbox"/> VOCs	SW 846 Method 8260B MCP	HCL / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Hexavalent Chromium	SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Total Chromium	SW 846 6010B MCP	HNO3 to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>
<input type="checkbox"/> Sel. Total Metals (Fe)	SW 846 6010B MCP	HNO3 to pH <2	1 X 500 mL P	<input type="checkbox"/>
<input type="checkbox"/> Dissolved Chromium	SW 846 6010B MCP	HNO3 to pH <2	1 X 500 mL P	<input type="checkbox"/>
<input type="checkbox"/> Sel. Dissolved Metals (Fe)	SW 846 6010B MCP	HNO3 to pH <2	1 X 500 mL P	<input type="checkbox"/>
<input type="checkbox"/> TOC	415.1	H2SO4/ 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>
<input type="checkbox"/> Alkalinity	310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>

PURGE OBSERVATIONS

DUP/MS/MSD collected

PURGE WATER CONTAINERIZED YES To ground

MISC. OBSERVATIONS

DUP/MS/MSD collected



QC INFORMATION

SAMPLED BY: MAM

FIELD FORM PREP. BY: MAM

FIELD FORM CHECK BY: CTM

NOTES:

Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits:
 turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (± 10 mV)

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA	EVENT NAME	April 2018 Semi-Annual	JOB NUMBER	3617187421				
LOCATION ID	OSW-7	FIELD SAMPLE ID	C040918-OSW7	CLIENT	Honeywell				
ACTIVITY	START: 8:20 END: 9:30	SAMPLE TIME	9:20	DATE	4/9/2018				
WATER LEVEL / WELL INFORMATION		MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING	PUMP SETTINGS		PID READINGS				
INITIAL DEPTH TO WATER	5.73 feet	PROTECTIVE CASING STICKUP (FROM GROUND)	see survey	PRESSURE TO PUMP (psi)	20 psi				
FINAL DEPTH TO WATER	5.75 feet	CASING / WELL DIFFERENCE	see survey	REFILL SETTING	10 seconds				
WELL DEPTH	13.98 feet	WELL DIAMETER	2 inches	DISCHARGE SETTING	5 seconds				
SCREEN LENGTH	5 feet								
WELL DIAMETER FACTORS / VOLUME INFORMATION									
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED		
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611			
DRAWDOWN VOLUME	<0.01 GAL		TOTAL VOL. PURGED	2.60 GAL		<0.01			
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))									
PURGE DATA		PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY ($\mu\text{S}/\text{cm}$)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	PUMP INTAKE DEPTH (ft.)	COMMENTS
TIME	DEPTH TO WATER (ft.)								
8:30	Begin purge								~ 10 ft.
8:40	5.75	250	4.94	210	6.65	5.79	4.90	144.6	
8:45	5.75	250	4.90	199	6.60	5.15	4.29	109.4	
8:50	5.75	250	4.80	196	6.56	4.96	4.11	97.4	
9:05	5.75	250	4.76	195	6.55	4.66	2.84	81.9	
9:10	5.75	250	4.76	195	6.55	4.54	3.21	79.1	
9:15	5.75	250	4.75	196	6.56	4.50	2.97	76.7	
9:20	Collect sample								
EQUIPMENT DOCUMENTATION									
TYPE OF PUMP		TYPE OF TUBING							
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")		<input type="checkbox"/> OTHER _____							
<input type="checkbox"/> PERISTALTIC		<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined)							
<input type="checkbox"/> OTHER _____		<input type="checkbox"/> OTHER _____							
ANALYTICAL PARAMETERS									
LAB ANALYSIS		METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED				
<input checked="" type="checkbox"/> VOCs		SW 846 Method 8260B MCP	HCL / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>				
<input checked="" type="checkbox"/> Hexavalent Chromium		SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>				
<input checked="" type="checkbox"/> Total Chromium		SW 846 6010B MCP	HNO ₃ to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>				
<input type="checkbox"/> Sel. Total Metals (Fe)		SW 846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>				
<input type="checkbox"/> Dissolved Chromium		SW 846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>				
<input type="checkbox"/> Sel. Dissolved Metals (Fe)		SW 846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>				
<input type="checkbox"/> TOC		415.1	H ₂ SO ₄ / 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>				
<input type="checkbox"/> Alkalinity		310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>				
PURGE OBSERVATIONS					MISC. OBSERVATIONS				
PURGE WATER CONTAINERIZED YES <input type="checkbox"/> NO To ground _____					MISC. OBSERVATIONS				
					wood.				
QC INFORMATION					NOTES:				
SAMPLED BY: JHP					Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits: turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (± 10 mV)				
FIELD FORM PREP. BY: JHP					FIELD FORM CHECK BY: CTM				

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA	EVENT NAME	April 2018 Semi-Annual	JOB NUMBER	3617187421
LOCATION ID	CLW-17	FIELD SAMPLE ID	C041118-CLW17	CLIENT	Honeywell
ACTIVITY	START: 11:20 END: 13:10	SAMPLE TIME	13:00	DATE	4/11/2018

WATER LEVEL / WELL INFORMATION		MEASUREMENT POINT		PUMP SETTINGS		PID READINGS	
INITIAL DEPTH TO WATER	5.40 feet	<input checked="" type="checkbox"/> TOP OF WELL RISER	<input type="checkbox"/> TOP OF CASING	PRESSURE TO PUMP (psi)	20 psi	PID MODEL	----
FINAL DEPTH TO WATER	5.85 feet	PROTECTIVE CASING STICKUP (FROM GROUND)	see survey	REFILL SETTING	10 seconds	PID WELL MOUTH	----
WELL DEPTH	19.95 feet	CASING / WELL DIFFERENCE	see survey	DISCHARGE SETTING	5 seconds	PID AMBIENT AIR	----
SCREEN LENGTH	5 feet	WELL DIAMETER	2 inches				

WELL DIAMETER FACTORS / VOLUME INFORMATION

DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611

RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED

DRAWDOWN VOLUME **0.07** GAL TOTAL VOL.
PURGED **6.90** GAL 0.01
(Initial - final x 0.16 (2-inch) or x 0.65 (4-inch))
(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP

QED SAMPLE PRO (1-3/4")

PERISTALTIC

OTHER

TYPE OF TUBING

X LOW DENSITY POLYETHYLENE (Teflon-lined)

OTHER

ANALYTICAL PARAMETERS

<u>ANALYTICAL PARAMETERS</u>	<u>LAB ANALYSIS</u>	<u>METHOD NUMBER</u>	<u>PRESERVATION METHOD</u>	<u>VOLUME REQUIRED</u>	<u>SAMPLE COLLECTED</u>
<input checked="" type="checkbox"/> VOCs		SW 846 Method 8260B MCP	HCL / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Hexavalent Chromium		SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Total Chromium		SW846 6010B MCP	HNO3 to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>
<input type="checkbox"/> Sel. Total Metals (Fe)		SW846 6010B MCP	HNO3 to pH <2	1 X 500 mL P	<input type="checkbox"/>
<input type="checkbox"/> Dissolved Chromium		SW846 6010B MCP	HNO3 to pH <2	1 X 500 mL P	<input type="checkbox"/>
<input type="checkbox"/> Sel. Dissolved Metals (Fe)		SW846 6010B MCP	HNO3 to pH <2	1 X 500 mL P	<input type="checkbox"/>
<input type="checkbox"/> TOC		415.1	H2SO4/ 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>
<input type="checkbox"/> Alkalinity		310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>

PUBGE OBSERVATIONS

PURGE WATER
CONTAINERIZED YES NO To ground

MISC. OBSERVATIONS

wood.

QC INFORMATION

QC INFORMATION
SAMPLED BY: JHP

NOTES:

Stabilization is considered to be achieved when three consecutive readings are taken at 5

Stabilization is considered to be achieved when three minute intervals and are within the following limits:

turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3% °C)

turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature ($\pm 0.1^\circ\text{C}$), pH (± 0.1 units), dissolved oxygen (10%) for values $> 0.5 \text{ mg/L}$, ORB ($\pm 10 \text{ mV}$).

pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (± 10 mV)

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA		EVENT NAME	April 2018 Semi-Annual		JOB NUMBER	3617187421																																																																																																																																																																																																																																																																																														
LOCATION ID	CLW-17B		FIELD SAMPLE ID	C041118-CLW17B		CLIENT	Honeywell																																																																																																																																																																																																																																																																																														
ACTIVITY	START: 13:10	END: 15:30	SAMPLE TIME	15:20		DATE	4/11/2018																																																																																																																																																																																																																																																																																														
WATER LEVEL / WELL INFORMATION			MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING		PUMP SETTINGS		PID READINGS																																																																																																																																																																																																																																																																																														
INITIAL DEPTH TO WATER	4.41 feet	PROTECTIVE CASING STICKUP (FROM GROUND)	see survey	PRESSURE TO PUMP (psi)	19 psi	PID MODEL	----																																																																																																																																																																																																																																																																																														
FINAL DEPTH TO WATER	13.97 feet	WELL DEPTH	31.61 feet	REFILL SETTING	10 seconds	PID WELL MOUTH	----																																																																																																																																																																																																																																																																																														
SCREEN LENGTH	5 feet	CASING / WELL DIFFERENCE	see survey	DISCHARGE SETTING	5 seconds	PID AMBIENT AIR	----																																																																																																																																																																																																																																																																																														
WELL DIAMETER FACTORS / VOLUME INFORMATION	WELL DIAMETER		2 inches																																																																																																																																																																																																																																																																																																		
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0																																																																																																																																																																																																																																																																																															
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED																																																																																																																																																																																																																																																																																														
DRAWDOWN VOLUME	1.53 GAL		TOTAL VOL. PURGED	4.19	GAL	0.36																																																																																																																																																																																																																																																																																															
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))																																																																																																																																																																																																																																																																																																					
<table border="1"> <thead> <tr> <th colspan="2">PURGE DATA</th> <th rowspan="2">PURGE RATE (ml/min)</th> <th rowspan="2">TEMP. (+/- deg. C)</th> <th rowspan="2">SPECIFIC CONDUCTIVITY (μS/cm)</th> <th rowspan="2">pH (units)</th> <th rowspan="2">DISS. O₂ (mg/L)</th> <th rowspan="2">TURBIDITY (NTU)</th> <th rowspan="2">ORP (+/- mV)</th> <th rowspan="2">PUMP INTAKE DEPTH (ft.)</th> <th rowspan="2">COMMENTS</th> </tr> <tr> <th>TIME</th> <th>DEPTH TO WATER (ft.)</th> </tr> </thead> <tbody> <tr><td>13:20</td><td>Begin purge</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>~ 25 ft.</td><td></td></tr> <tr><td>13:30</td><td>7.75</td><td>220</td><td>7.10</td><td>801</td><td>11.61</td><td>3.30</td><td>2.40</td><td>3.2</td><td></td><td></td></tr> <tr><td>13:35</td><td>8.60</td><td>140</td><td>7.25</td><td>831</td><td>11.64</td><td>3.12</td><td>2.91</td><td>0.1</td><td></td><td></td></tr> <tr><td>13:45</td><td>9.89</td><td>140</td><td>7.51</td><td>879</td><td>11.67</td><td>2.80</td><td>2.24</td><td>-0.5</td><td></td><td></td></tr> <tr><td>14:00</td><td>11.30</td><td>140</td><td>7.03</td><td>833</td><td>11.48</td><td>2.39</td><td>2.31</td><td>6.1</td><td></td><td></td></tr> <tr><td>14:15</td><td>12.50</td><td>140</td><td>7.72</td><td>694</td><td>10.83</td><td>1.83</td><td>1.97</td><td>13.3</td><td></td><td></td></tr> <tr><td>14:20</td><td>12.60</td><td>140</td><td>7.45</td><td>633</td><td>10.23</td><td>1.67</td><td>2.11</td><td>22.7</td><td></td><td></td></tr> <tr><td>14:30</td><td>13.01</td><td>140</td><td>7.38</td><td>619</td><td>9.77</td><td>1.46</td><td>2.02</td><td>31.2</td><td></td><td></td></tr> <tr><td>14:45</td><td>13.70</td><td>140</td><td>7.37</td><td>632</td><td>9.52</td><td>1.27</td><td>1.68</td><td>36.7</td><td></td><td></td></tr> <tr><td>15:00</td><td>13.88</td><td>140</td><td>7.50</td><td>646</td><td>9.37</td><td>1.16</td><td>1.88</td><td>38.5</td><td></td><td></td></tr> <tr><td>15:10</td><td>13.91</td><td>140</td><td>7.74</td><td>655</td><td>9.26</td><td>1.03</td><td>2.01</td><td>39.9</td><td></td><td></td></tr> <tr><td>15:15</td><td>13.97</td><td>140</td><td>7.71</td><td>661</td><td>9.21</td><td>1.00</td><td>1.86</td><td>40.8</td><td></td><td></td></tr> <tr><td>15:20</td><td>Collect sample</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="8">EQUIPMENT DOCUMENTATION</td> <td colspan="2">TYPE OF TUBING</td> </tr> <tr> <td colspan="2"> <input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4") <input type="checkbox"/> PERISTALTIC </td> <td colspan="2"> <input type="checkbox"/> OTHER _____ </td> <td colspan="2"> <input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined) <input type="checkbox"/> OTHER _____ </td> </tr> <tr> <td colspan="8">ANALYTICAL PARAMETERS</td> <td colspan="2"></td> </tr> <tr> <td colspan="2"> <u>LAB ANALYSIS</u> <input checked="" type="checkbox"/> VOCs <input checked="" type="checkbox"/> Hexavalent Chromium <input checked="" type="checkbox"/> Total Chromium <input type="checkbox"/> Sel. 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C </td> <td colspan="2"> <u>VOLUME REQUIRED</u> 3 X 40 mL VOA 1 X 250 mL P 1 X 250 mL P 1 X 500 mL P 1 X 500 mL P 1 X 500 mL P 2 X 40 mL VOA 1 X 500 mL P </td> <td colspan="2"> <u>SAMPLE COLLECTED</u> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </td> </tr> <tr> <td colspan="8">PURGE OBSERVATIONS</td> <td colspan="2">MISC. OBSERVATIONS</td> </tr> <tr> <td colspan="8">PURGE WATER CONTAINERIZED YES <input type="checkbox"/> NO To ground</td> <td colspan="2">  </td> </tr> <tr> <td colspan="8">QC INFORMATION</td> <td colspan="2">NOTES:</td> </tr> <tr> <td colspan="8">SAMPLED BY: JHP</td> <td colspan="2"> Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits: turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (\pm 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (\pm 10 mV) </td> </tr> <tr> <td colspan="4">FIELD FORM PREP. BY: JHP</td> <td colspan="4">CHECK BY: CTM</td> <td colspan="2"></td> </tr> </tbody></table>								PURGE DATA		PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY (μ S/cm)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS	TIME	DEPTH TO WATER (ft.)	13:20	Begin purge								~ 25 ft.		13:30	7.75	220	7.10	801	11.61	3.30	2.40	3.2			13:35	8.60	140	7.25	831	11.64	3.12	2.91	0.1			13:45	9.89	140	7.51	879	11.67	2.80	2.24	-0.5			14:00	11.30	140	7.03	833	11.48	2.39	2.31	6.1			14:15	12.50	140	7.72	694	10.83	1.83	1.97	13.3			14:20	12.60	140	7.45	633	10.23	1.67	2.11	22.7			14:30	13.01	140	7.38	619	9.77	1.46	2.02	31.2			14:45	13.70	140	7.37	632	9.52	1.27	1.68	36.7			15:00	13.88	140	7.50	646	9.37	1.16	1.88	38.5			15:10	13.91	140	7.74	655	9.26	1.03	2.01	39.9			15:15	13.97	140	7.71	661	9.21	1.00	1.86	40.8			15:20	Collect sample																																																						EQUIPMENT DOCUMENTATION								TYPE OF TUBING		<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4") <input type="checkbox"/> PERISTALTIC		<input type="checkbox"/> OTHER _____		<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined) <input type="checkbox"/> OTHER _____		ANALYTICAL PARAMETERS										<u>LAB ANALYSIS</u> <input checked="" type="checkbox"/> VOCs <input checked="" type="checkbox"/> Hexavalent Chromium <input checked="" type="checkbox"/> Total Chromium <input type="checkbox"/> Sel. 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WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA		EVENT NAME	April 2018 Semi-Annual		JOB NUMBER	3617187421			
LOCATION ID	CLW-19		FIELD SAMPLE ID	C041018-CLW19		CLIENT	Honeywell			
ACTIVITY	START:	10:45	END:	11:55	SAMPLE TIME	11:45				
WATER LEVEL / WELL INFORMATION			MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING		PUMP SETTINGS		PID READINGS			
INITIAL DEPTH TO WATER	3.78 feet		PROTECTIVE CASING STICKUP (FROM GROUND)	see survey		PRESSURE TO PUMP (psi)	16 psi	PID MODEL	----	
FINAL DEPTH TO WATER	3.96 feet				REFILL SETTING	10 seconds	PID WELL MOUTH	----		
WELL DEPTH	13.28 feet		CASING / WELL DIFFERENCE	see survey		DISCHARGE SETTING	5 seconds	PID AMBIENT AIR	----	
SCREEN LENGTH	5 feet		WELL DIAMETER	2 inches						
WELL DIAMETER FACTORS / VOLUME INFORMATION										
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED			
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611				
DRAWDOWN VOLUME	0.02 GAL		TOTAL VOL. PURGED	2.81 GAL		0.01				
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))										
PURGE DATA										
TIME	DEPTH TO WATER (ft.)	PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY (μ S/cm)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS
10:55	Begin purge								~ 9 ft.	
11:00	3.88	240	5.44	331	7.00	5.49	5.01	121.4		
11:05	3.95	240	5.13	325	6.49	2.88	4.77	123.9		
11:20	3.96	240	5.27	321	6.40	2.69	4.08	104.1		
11:30	3.96	240	5.36	322	6.41	2.64	3.91	98.4		
11:35	3.96	240	5.34	322	6.41	2.62	4.21	96.6		
11:40	3.96	240	5.33	321	6.41	2.64	4.01	96.7		
11:45	Collect sample									
EQUIPMENT DOCUMENTATION										
TYPE OF PUMP		TYPE OF TUBING								
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")	<input type="checkbox"/> OTHER _____	<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined) <input type="checkbox"/> OTHER _____								
ANALYTICAL PARAMETERS										
LAB ANALYSIS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED						
<input checked="" type="checkbox"/> VOCs	SW 846 Method 8260B MCP	HCl / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Hexavalent Chromium	SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Total Chromium	SW 846 6010B MCP	HNO ₃ to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input type="checkbox"/> Sel. Total Metals (Fe)	SW 846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Dissolved Chromium	SW 846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Sel. Dissolved Metals (Fe)	SW 846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> TOC	415.1	H ₂ SO ₄ / 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>						
<input type="checkbox"/> Alkalinity	310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>						
PURGE OBSERVATIONS			MISC. OBSERVATIONS							
PURGE WATER CONTAINERIZED			MISC. OBSERVATIONS							
YES <input type="checkbox"/> To ground			MISC. OBSERVATIONS							
wood.										
QC INFORMATION			NOTES:							
SAMPLED BY: JHP			Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits:							
FIELD FORM			turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (\pm 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (\pm 10 mV)							
PREP. BY: JHP			CHECK BY: CTM							

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA		EVENT NAME	April 2018 Semi-Annual		JOB NUMBER	3617187421			
LOCATION ID	CLW-19B (DUP/ MS/ MSD)		FIELD SAMPLE ID	C041018-CLW19B		CLIENT	Honeywell			
ACTIVITY	START:	12:15	END:	13:35	SAMPLE TIME	13:15				
WATER LEVEL / WELL INFORMATION			MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING	PUMP SETTINGS			PID READINGS			
INITIAL DEPTH TO WATER	2.61	feet	PROTECTIVE CASING STICKUP (FROM GROUND)	see survey	PRESSURE TO PUMP (psi)	18	psi	PID MODEL	----	
FINAL DEPTH TO WATER	2.70	feet	CASING / WELL DIFFERENCE	see survey	REFILL SETTING	10	seconds	PID WELL MOUTH	----	
WELL DEPTH	22.91	feet	WELL DIAMETER	2 inches	DISCHARGE SETTING	5	seconds	PID AMBIENT AIR	----	
SCREEN LENGTH	5	feet								
WELL DIAMETER FACTORS / VOLUME INFORMATION										
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED			
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611				
DRAWDOWN VOLUME	0.01 GAL		TOTAL VOL. PURGED	2.34 GAL		<0.01				
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))										
PURGE DATA										
TIME	DEPTH TO WATER (ft.)	PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY (μ S/cm)	pH (units)	DISS. O2 (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS
12:25	Begin purge								~ 18 ft.	
12:30	2.70	200	6.51	353	6.79	1.91	31.8	141.7		
12:35	2.70	200	6.40	350	6.67	1.55	48.0	138.9		
12:45	2.70	200	6.39	338	6.60	1.75	14.7	112.8		
13:00	2.70	200	6.58	332	6.58	1.88	4.14	99.7		
13:05	2.70	200	6.57	331	6.58	1.92	3.99	96.2		
13:10	2.70	200	6.56	331	6.58	1.91	3.71	94.4		
13:15	Collect sample									
EQUIPMENT DOCUMENTATION										
TYPE OF PUMP		TYPE OF TUBING								
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")	<input type="checkbox"/> OTHER _____	<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined) <input type="checkbox"/> OTHER _____								
<input type="checkbox"/> PERISTALTIC										
ANALYTICAL PARAMETERS										
LAB ANALYSIS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED						
<input checked="" type="checkbox"/> VOCs	SW 846 Method 8260B MCP	HCl / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Hexavalent Chromium	SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Total Chromium	SW846 6010B MCP	HNO3 to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input type="checkbox"/> Sel. Total Metals (Fe)	SW846 6010B MCP	HNO3 to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Dissolved Chromium	SW846 6010B MCP	HNO3 to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Sel. Dissolved Metals (Fe)	SW846 6010B MCP	HNO3 to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> TOC	415.1	H2SO4/ 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>						
<input type="checkbox"/> Alkalinity	310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>						
PURGE OBSERVATIONS					MISC. OBSERVATIONS					
PURGE WATER CONTAINERIZED	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	To ground	DUP/ MS/ MSD collected							
QC INFORMATION					NOTES:					
SAMPLED BY: JHP					Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits: turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (± 10 mV)					
FIELD FORM		FIELD FORM			CHECK BY:		CTM			
PREP. BY: JHP										

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA		EVENT NAME	April 2018 Semi-Annual		JOB NUMBER	3617187421			
LOCATION ID	CLW-20		FIELD SAMPLE ID	C041018-CLW20		CLIENT	Honeywell			
ACTIVITY	START: 8:25	END: 9:35	SAMPLE TIME	9:25		DATE	4/10/2018			
WATER LEVEL / WELL INFORMATION			MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING		PUMP SETTINGS		PID READINGS			
INITIAL DEPTH TO WATER	4.23 feet		PROTECTIVE Casing Stickup (From Ground)	see survey		PRESSURE TO PUMP (psi)	17 psi	PID MODEL	----	
FINAL DEPTH TO WATER	4.45 feet		Casing / Well Difference	see survey		REFILL SETTING	10 seconds	PID WELL MOUTH	----	
WELL DEPTH	15.13 feet		WELL DIAMETER	2 inches		DISCHARGE SETTING	5 seconds	PID AMBIENT AIR	----	
SCREEN LENGTH	10 feet									
WELL DIAMETER FACTORS / VOLUME INFORMATION										
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED			
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611				
DRAWDOWN VOLUME	0.03 GAL		TOTAL VOL. PURGED	2.57 GAL					0.01	
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))										
PURGE DATA										
TIME	DEPTH TO WATER (ft.)	PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY ($\mu\text{S}/\text{cm}$)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS
8:35	Begin purge									~ 10 ft.
8:40	4.42	220	5.39	933	7.13	17.16	22.8	227.4		
8:45	4.45	220	5.53	919	7.23	10.73	17.9	221.8		
8:55	4.44	220	5.69	914	7.33	6.33	8.58	191.6		
9:05	4.44	220	5.68	913	7.37	5.26	6.71	163.0		
9:10	4.44	220	5.71	915	7.38	4.91	4.48	148.1		
9:15	4.45	220	5.70	915	7.38	4.79	4.82	144.4		
9:20	4.45	220	5.68	915	7.38	4.71	4.21	141.9		
9:25	Collect sample									
EQUIPMENT DOCUMENTATION										
TYPE OF PUMP					TYPE OF TUBING					
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")	<input type="checkbox"/> OTHER _____				<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined)					
<input type="checkbox"/> PERISTALTIC					<input type="checkbox"/> OTHER _____					
ANALYTICAL PARAMETERS										
LAB ANALYSIS		METHOD NUMBER	PRESERVATION METHOD		VOLUME REQUIRED	SAMPLE COLLECTED				
<input checked="" type="checkbox"/> VOCs		SW 846 Method 8260B MCP	HCl / 4 DEG. C		3 X 40 mL VOA	<input checked="" type="checkbox"/>				
<input checked="" type="checkbox"/> Hexavalent Chromium		SW 846 Method 7196A MCP	4 DEG. C		1 X 250 mL P	<input checked="" type="checkbox"/>				
<input checked="" type="checkbox"/> Total Chromium		SW 846 6010B MCP	HNO ₃ to pH <2		1 X 250 mL P	<input checked="" type="checkbox"/>				
<input type="checkbox"/> Sel. Total Metals (Fe)		SW 846 6010B MCP	HNO ₃ to pH <2		1 X 500 mL P	<input type="checkbox"/>				
<input type="checkbox"/> Dissolved Chromium		SW 846 6010B MCP	HNO ₃ to pH <2		1 X 500 mL P	<input type="checkbox"/>				
<input type="checkbox"/> Sel. Dissolved Metals (Fe)		SW 846 6010B MCP	HNO ₃ to pH <2		1 X 500 mL P	<input type="checkbox"/>				
<input type="checkbox"/> TOC		415.1	H ₂ SO ₄ / 4 DEG. C		2 X 40 mL VOA	<input type="checkbox"/>				
<input type="checkbox"/> Alkalinity		310.1	4 DEG. C		1 X 500 mL P	<input type="checkbox"/>				
PURGE OBSERVATIONS					MISC. OBSERVATIONS					
PURGE WATER CONTAINERIZED	YES	<input type="checkbox"/> NO	To ground			wood.				
QC INFORMATION					NOTES:					
SAMPLED BY: JHP					Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits:					
FIELD FORM PREP. BY: JHP					turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (± 10 mV)					
FIELD FORM CHECK BY: CTM										

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA		EVENT NAME	April 2018 Semi-Annual		JOB NUMBER	3617187421			
LOCATION ID	CLW-20B		FIELD SAMPLE ID	C041018-CLW20B		CLIENT	Honeywell			
ACTIVITY	START: 9:35	END: 10:35	SAMPLE TIME	10:25		DATE	4/10/2018			
WATER LEVEL / WELL INFORMATION			MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING	PUMP SETTINGS			PID READINGS			
INITIAL DEPTH TO WATER	3.85 feet	PROTECTIVE CASING STICKUP (FROM GROUND)	see survey	PRESSURE TO PUMP (psi)	22 psi	PID MODEL	----			
FINAL DEPTH TO WATER	5.23 feet	CASING / WELL DIFFERENCE	see survey	REFILL SETTING	10 seconds	PID WELL MOUTH	----			
WELL DEPTH	42.67 feet	WELL DIAMETER	2 inches	DISCHARGE SETTING	5 seconds	PID AMBIENT AIR	----			
SCREEN LENGTH	10 feet									
WELL DIAMETER FACTORS / VOLUME INFORMATION										
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED			
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611				
DRAWDOWN VOLUME	0.22 GAL		TOTAL VOL. PURGED	2.10 GAL		0.10				
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))										
PURGE DATA										
TIME	DEPTH TO WATER (ft.)	PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY (μ S/cm)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS
9:40	Begin purge								~ 37 ft.	
9:45	5.01	200	7.46	537	7.76	1.60	9.73	113.1		
9:50	5.30	200	7.39	517	7.81	1.37	11.7	106.8		
9:55	5.21	200	7.45	513	7.81	1.22	10.0	100.7		
10:10	5.23	200	7.62	547	7.78	0.88	4.38	91.8		
10:15	5.22	200	7.65	551	7.78	0.86	4.61	88.7		
10:20	5.23	200	7.70	555	7.78	0.84	3.92	85.0		
10:25	Collect sample									
EQUIPMENT DOCUMENTATION										
TYPE OF PUMP				TYPE OF TUBING						
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")		<input type="checkbox"/> OTHER _____		<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined)		<input type="checkbox"/> OTHER _____				
ANALYTICAL PARAMETERS										
LAB ANALYSIS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED						
<input checked="" type="checkbox"/> VOCs	SW 846 Method 8260B MCP	HCl / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Hexavalent Chromium	SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input checked="" type="checkbox"/> Total Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>						
<input type="checkbox"/> Sel. Total Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Dissolved Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> Sel. Dissolved Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>						
<input type="checkbox"/> TOC	415.1	H ₂ SO ₄ / 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>						
<input type="checkbox"/> Alkalinity	310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>						
PURGE OBSERVATIONS				MISC. OBSERVATIONS						
PURGE WATER CONTAINERIZED YES <input type="checkbox"/> NO <input type="checkbox"/> To ground _____				MISC. OBSERVATIONS						
										
QC INFORMATION				NOTES:						
SAMPLED BY: JHP				Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits: turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (± 10 mV)						
FIELD FORM PREP. BY: JHP		FIELD FORM CHECK BY: CTM								

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA		EVENT NAME	April 2018 Semi-Annual		JOB NUMBER	3617187421				
LOCATION ID	CLW-22		FIELD SAMPLE ID	C041118-CLW22		CLIENT	Honeywell				
ACTIVITY	START:	8:35	END:	9:50	SAMPLE TIME	9:40		DATE	4/11/2018		
WATER LEVEL / WELL INFORMATION			MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING		PUMP SETTINGS		PID READINGS				
INITIAL DEPTH TO WATER	6.91 feet		PROTECTIVE CASING STICKUP (FROM GROUND)	see survey		PRESSURE TO PUMP (psi)	18 psi		PID MODEL	----	
FINAL DEPTH TO WATER	7.70 feet		Casing / Well Difference		see survey	REFILL SETTING	10 seconds		PID WELL MOUTH	----	
WELL DEPTH	11.95 feet		WELL DIAMETER		2 inches	DISCHARGE SETTING	5 seconds		PID AMBIENT AIR	----	
SCREEN LENGTH	5 feet										
WELL DIAMETER FACTORS / VOLUME INFORMATION											
DIAMETER (inches)	1.0	1.5	<input type="checkbox"/> 2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED				
GALLONS/FOOT	0.041	0.092	<input type="checkbox"/> 0.163	0.653	1.469	2.611					
DRAWDOWN VOLUME	0.12 GAL		TOTAL VOL. PURGED	2.34 GAL		0.05					
(initial - final x 0.16 (2-inch) or x 0.65 (4-inch))											
PURGE DATA											
TIME	DEPTH TO WATER (ft.)	PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY (μ S/cm)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)	COMMENTS	
8:50	Begin purge								~ 9 ft.		
9:00	7.38	240	6.04	661	6.36	3.53	6.19	175.2			
9:05	7.79	240	6.18	638	6.32	3.37	9.41	137.5			
9:15	7.70	200	6.58	857	6.33	3.05	4.70	127.6			
9:25	7.70	200	6.57	920	6.33	3.02	3.40	116.4			
9:30	7.70	200	6.61	915	6.33	3.06	3.89	110.4			
9:35	7.70	200	6.64	917	6.33	3.07	3.12	108.7			
9:40	Collect sample										
EQUIPMENT DOCUMENTATION											
TYPE OF PUMP			TYPE OF TUBING								
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")	<input type="checkbox"/> OTHER _____		<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined) <input type="checkbox"/> OTHER _____								
<input type="checkbox"/> PERISTALTIC											
ANALYTICAL PARAMETERS											
LAB ANALYSIS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED							
<input checked="" type="checkbox"/> VOCs	SW 846 Method 8260B MCP	HCl / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/> Hexavalent Chromium	SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>							
<input checked="" type="checkbox"/> Total Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>							
<input type="checkbox"/> Sel. Total Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>							
<input type="checkbox"/> Dissolved Chromium	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>							
<input type="checkbox"/> Sel. Dissolved Metals (Fe)	SW846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>							
<input type="checkbox"/> TOC	415.1	H ₂ SO ₄ / 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>							
<input type="checkbox"/> Alkalinity	310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>							
PURGE OBSERVATIONS			MISC. OBSERVATIONS								
PURGE WATER CONTAINERIZED			MISC. OBSERVATIONS								
YES <input type="checkbox"/> To ground _____			wood.								
QC INFORMATION			NOTES:								
SAMPLED BY: JHP			Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits:								
FIELD FORM PREP. BY: JHP			turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (± 10 mV)								
FIELD FORM PREP. BY: JHP			CHECK BY: CTM								

WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Honeywell Conductorlab Site, Groton, MA		EVENT NAME	April 2018 Semi-Annual		JOB NUMBER	3617187421		
LOCATION ID	CLW-22B		FIELD SAMPLE ID	C041118-CLW22B		CLIENT	Honeywell		
ACTIVITY	START: 9:45	END: 10:55	SAMPLE TIME	10:45		DATE	4/11/2018		
WATER LEVEL / WELL INFORMATION			MEASUREMENT POINT <input checked="" type="checkbox"/> TOP OF WELL RISER <input type="checkbox"/> TOP OF CASING		PUMP SETTINGS		PID READINGS		
INITIAL DEPTH TO WATER	7.16 feet		PROTECTIVE CASING STICKUP (FROM GROUND)	see survey		PRESSURE TO PUMP (psi)	19 psi	PID MODEL	----
FINAL DEPTH TO WATER	7.95 feet				REFILL SETTING	10 seconds	PID WELL MOUTH	----	
WELL DEPTH	23.44 feet		CASING / WELL DIFFERENCE	see survey		DISCHARGE SETTING	5 seconds	PID AMBIENT AIR	----
SCREEN LENGTH	10 feet		WELL DIAMETER	2 inches					
WELL DIAMETER FACTORS / VOLUME INFORMATION									
DIAMETER (inches)	1.0	1.5	2.0	4.0	6.0	8.0	RATIO OF DRAWDOWN VOLUME TO VOLUME PURGED		
GALLONS/FOOT	0.041	0.092	0.163	0.653	1.469	2.611			
DRAWDOWN VOLUME	0.12 GAL		TOTAL VOL. PURGED	1.75 GAL			0.06		
(Initial - final x 0.16 (2-inch) or x 0.65 (4-inch))									
PURGE DATA									
TIME	DEPTH TO WATER (ft.)	PURGE RATE (ml/min)	TEMP. (+/- deg. C)	SPECIFIC CONDUCTIVITY (μ S/cm)	pH (units)	DISS. O ₂ (mg/L)	TURBIDITY (NTU)	ORP (+/- mV)	PUMP INTAKE DEPTH (ft.)
9:55	Begin purge								~ 18 ft.
10:05	7.95	150	8.43	836	6.36	3.10	8.95	117.2	
10:10	7.95	150	8.37	834	6.37	3.03	7.59	108.0	
10:20	7.95	150	8.44	839	6.42	3.02	3.23	94.9	
10:30	7.95	150	8.64	841	6.45	3.04	3.06	85.8	
10:35	7.95	150	8.65	840	6.45	3.04	2.81	83.7	
10:40	7.95	150	8.66	840	6.45	3.05	2.79	82.4	
10:45	Collect sample								
EQUIPMENT DOCUMENTATION									
TYPE OF PUMP					TYPE OF TUBING				
<input checked="" type="checkbox"/> QED SAMPLE PRO (1-3/4")		<input type="checkbox"/> OTHER _____			<input checked="" type="checkbox"/> LOW DENSITY POLYETHYLENE (Teflon-lined)		<input type="checkbox"/> OTHER _____		
<input type="checkbox"/> PERISTALTIC									
ANALYTICAL PARAMETERS									
LAB ANALYSIS	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED					
<input checked="" type="checkbox"/> VOCs	SW 846 Method 8260B MCP	HCl / 4 DEG. C	3 X 40 mL VOA	<input checked="" type="checkbox"/>					
<input checked="" type="checkbox"/> Hexavalent Chromium	SW 846 Method 7196A MCP	4 DEG. C	1 X 250 mL P	<input checked="" type="checkbox"/>					
<input checked="" type="checkbox"/> Total Chromium	SW 846 6010B MCP	HNO ₃ to pH <2	1 X 250 mL P	<input checked="" type="checkbox"/>					
<input type="checkbox"/> Sel. Total Metals (Fe)	SW 846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>					
<input type="checkbox"/> Dissolved Chromium	SW 846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>					
<input type="checkbox"/> Sel. Dissolved Metals (Fe)	SW 846 6010B MCP	HNO ₃ to pH <2	1 X 500 mL P	<input type="checkbox"/>					
<input type="checkbox"/> TOC	415.1	H ₂ SO ₄ / 4 DEG. C	2 X 40 mL VOA	<input type="checkbox"/>					
<input type="checkbox"/> Alkalinity	310.1	4 DEG. C	1 X 500 mL P	<input type="checkbox"/>					
PURGE OBSERVATIONS					MISC. OBSERVATIONS				
PURGE WATER CONTAINERIZED		YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	To ground			wood.			
QC INFORMATION					NOTES:				
SAMPLED BY: JHP					Stabilization is considered to be achieved when three consecutive readings are taken at 5 minute intervals and are within the following limits: turbidity (10% for values > than 5 NTU), specific conductivity (3%), temperature (3°C), pH (± 0.1 units), dissolved oxygen (10%) for values > 0.5 mg/L, ORP (± 10 mV)				
FIELD FORM PREP. BY: JHP		FIELD FORM CHECK BY: CTM							

FIELD DATA RECORD - SURFACE WATER

PROJECT	HONEYWELL - CONDUCTORLAB, GROTON, MA	JOB NUMBER	3617187421		DATE	4/2/2018		
FIELD SAMPLE ID	C040218-CSW2	ACTIVITY TIME	START	10:45	END	10:50	BOTTLE TIME	10:45
QC SAMPLES COLLECTED	---							

SURFACE WATER DATA			EQUIPMENT USED	TYPE OF SURFACE WATER		
WATER DEPTH AT LOCATION	0.30 ft.	SPEC. COND	385 $\mu\text{S}/\text{cm}$	<input type="checkbox"/> BEAKER	<input checked="" type="checkbox"/> STREAM/ RIVER	DECON FLUIDS USED:
DEPTH OF SAMPLE FROM SURFACE	0.10 ft.	D.O.	14.92 mg/L	<input checked="" type="checkbox"/> DIRECT DIP	<input type="checkbox"/> LAKE/ POND	<input type="checkbox"/> DI WATER
TEMPERATURE	2.41 DEG C	SALINITY	--- %	<input type="checkbox"/> PERISTALTIC PUMP	<input type="checkbox"/> SEEP	<input type="checkbox"/> POTABLE WATER
TURBIDITY	1.17 NTU	ORP	262.0 mV	<input type="checkbox"/> FILTER (0.45 micron)	<input type="checkbox"/> MARSH	<input checked="" type="checkbox"/> NONE
pH	6.77 UNITS			<input type="checkbox"/> LDPE Tubing & Silicon	<input type="checkbox"/> OTHER	

SEDIMENT DATA							
SEDIMENT SAMPLE	START DEPTH	<input type="checkbox"/>	TYPE OF SEDIMENT	<input type="checkbox"/> ORGANIC	EQUIPMENT FOR COLLECTION	<input type="checkbox"/> HAND AUGER	DECON FLUIDS USED
	END DEPTH	<input type="checkbox"/>	<input type="checkbox"/> SAND	<input type="checkbox"/> S.S. SPOON	<input type="checkbox"/> DI WATER		
TYPE OF SAMPLE	GRAB	<input type="checkbox"/>	<input type="checkbox"/> GRAVEL	<input type="checkbox"/> ALUMINIUM PAN	<input type="checkbox"/> POTABLE WATER		
SAMPLE OBSERVATIONS		<input type="checkbox"/> CLAY	<input type="checkbox"/> DREDGE	<input type="checkbox"/> LIQUINOX			
ODOR		<input type="checkbox"/> OTHER	<input type="checkbox"/> OTHER	<input type="checkbox"/> OTHER			
COLOR							
FLOC OBSERVED							
							CLEAR OF LEAF LITTER

ANALYTICAL PARAMETERS						
SURFACE WATER		METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
<input checked="" type="checkbox"/> VOCs		8260	N	HCl / 4 DEG. C	3 X 40 mL	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Dissolved Metals		6010B	Lab	4 DEG. C	1 X 250 mL	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Hex Cr.		7196A	N	4 DEG. C	1 X 250 mL	<input checked="" type="checkbox"/>
<input type="checkbox"/> Sulfate/Chloride/Alkalinity		300	N	4 DEG. C	1 X 60 mL	<input type="checkbox"/>
<input type="checkbox"/> Dissolved Organic/Inorganic Carbon		SM 5310 B	N	4 DEG. C	2 X 40 mL	<input type="checkbox"/>
<input type="checkbox"/> Sulfide		SM 4500	N	4 DEG. Zinc NAOH	1 X 250 mL	<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>

ANALYTICAL PARAMETERS						
SEDIMENT		METHOD NUMBER		PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>

NOTES

wood.

SIGNATURE: Ch. M. for MAMSampled by: MAM
Prepared by: MAM
Checked by: CTM

FIELD DATA RECORD - SURFACE WATER

PROJECT	HONEYWELL - CONDUCTORLAB, GROTON, MA	JOB NUMBER	3617187421		DATE	4/2/2018		
FIELD SAMPLE ID	C040218-CSW3	ACTIVITY TIME	START	10:30	END	10:40	BOTTLE TIME	10:30
QC SAMPLES COLLECTED	DUP/MS/MSD							
SURFACE WATER DATA				EQUIPMENT USED	TYPE OF SURFACE WATER			
WATER DEPTH AT LOCATION	1.00 ft.	SPEC. COND	379 $\mu\text{S}/\text{cm}$	<input type="checkbox"/> BEAKER <input checked="" type="checkbox"/> DIRECT DIP <input type="checkbox"/> PERISTALTIC PUMP <input type="checkbox"/> FILTER (0.45 micron) <input type="checkbox"/> LDPE Tubing & Silicon	<input checked="" type="checkbox"/> STREAM/ RIVER <input type="checkbox"/> LAKE/ POND <input type="checkbox"/> SEEP <input type="checkbox"/> MARSH <input type="checkbox"/> OTHER	DECON FLUIDS USED: <input type="checkbox"/> DI WATER <input type="checkbox"/> POTABLE WATER <input checked="" type="checkbox"/> NONE		
DEPTH OF SAMPLE FROM SURFACE	0.30 ft.	D.O.	14.41 mg/L					
TEMPERATURE	2.91 DEG C	SALINITY	--- %					
TURBIDITY	2.19 NTU	ORP	265.0 mV					
pH	6.60 UNITS							
SEDIMENT DATA								
SEDIMENT SAMPLE	START DEPTH	<input type="checkbox"/>	TYPE OF SEDIMENT	<input type="checkbox"/> ORGANIC <input type="checkbox"/> SAND <input type="checkbox"/> GRAVEL <input type="checkbox"/> CLAY <input type="checkbox"/> OTHER	EQUIPMENT FOR COLLECTION	DECON FLUIDS USED		
	END DEPTH	<input type="checkbox"/>			<input type="checkbox"/> HAND AUGER <input type="checkbox"/> S.S. SPOON <input type="checkbox"/> ALUMINIUM PAN <input type="checkbox"/> DREDGE <input type="checkbox"/> OTHER	<input type="checkbox"/> DI WATER <input type="checkbox"/> POTABLE WATER <input type="checkbox"/> LIQUINOX <input type="checkbox"/> OTHER		
TYPE OF SAMPLE	GRAB	<input type="checkbox"/>						
SAMPLE OBSERVATIONS								
ODOR								
COLOR								
FLOC OBSERVED			CLEAR OF LEAF LITTER					
ANALYTICAL PARAMETERS								
SURFACE WATER		METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED		
<input checked="" type="checkbox"/> VOCs		8260	N	HCl / 4 DEG. C	3 X 40 mL	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/> Dissolved Metals		6010B	Lab	4 DEG. C	1 X 250 mL	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/> Hex Cr.		7196A	N	4 DEG. C	1 X 250 mL	<input checked="" type="checkbox"/>		
<input type="checkbox"/> Sulfate/Chloride/Alkalinity		300	N	4 DEG. C	1 X 60 mL	<input type="checkbox"/>		
<input type="checkbox"/> Dissolved Organic/Inorganic Carbon		SM 5310 B	N	4 DEG. C	2 X 40 mL	<input type="checkbox"/>		
<input type="checkbox"/> Sulfide		SM 4500	N	4 DEG. Zinc NAOH	1 X 250 mL	<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
ANALYTICAL PARAMETERS								
SEDIMENT		METHOD NUMBER		PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
NOTES	DUP/MS/MSD collected							
SIGNATURE:	<i>ch m for mam</i>							
Sampled by: MAM Prepared by: MAM Checked by: CTM								

wood.

FIELD DATA RECORD - SURFACE WATER

PROJECT	HONEYWELL - CONDUCTORLAB, GROTON, MA	JOB NUMBER	3617187421		DATE	4/2/2018		
FIELD SAMPLE ID	C040218-CSW3A	ACTIVITY TIME	START	10:15	END	10:25	BOTTLE TIME	10:15
QC SAMPLES COLLECTED	---							

SURFACE WATER DATA

WATER DEPTH AT LOCATION	0.50 ft.	SPEC. COND	408 $\mu\text{S}/\text{cm}$	EQUIPMENT USED	<input type="checkbox"/> BEAKER	<input checked="" type="checkbox"/> STREAM/ RIVER	DECON FLUIDS USED:
DEPTH OF SAMPLE FROM SURFACE	0.20 ft.	D.O.	14.16 mg/L	<input checked="" type="checkbox"/> DIRECT DIP	<input type="checkbox"/> LAKE/ POND	<input type="checkbox"/> DI WATER	
TEMPERATURE	2.42 DEG C	SALINITY	--- %	<input type="checkbox"/> PERISTALTIC PUMP	<input type="checkbox"/> SEEP	<input type="checkbox"/> POTABLE WATER	
TURBIDITY	8.70 NTU	ORP	272.0 mV	<input type="checkbox"/> FILTER (0.45 micron)	<input type="checkbox"/> MARSH	<input checked="" type="checkbox"/> NONE	
pH	6.56 UNITS			<input type="checkbox"/> LDPE Tubing & Silicon	<input type="checkbox"/> OTHER		

SEDIMENT DATA

SEDIMENT SAMPLE	START DEPTH	<input type="checkbox"/>	TYPE OF SEDIMENT	<input type="checkbox"/> ORGANIC	EQUIPMENT FOR COLLECTION	<input type="checkbox"/> HAND AUGER	DECON FLUIDS USED	<input type="checkbox"/> DI WATER
	END DEPTH	<input type="checkbox"/>	<input type="checkbox"/> SAND	<input type="checkbox"/> S.S. SPOON		<input type="checkbox"/> ALUMINIUM PAN	<input type="checkbox"/> POTABLE WATER	
TYPE OF SAMPLE	GRAB	<input type="checkbox"/>	<input type="checkbox"/> GRAVEL	<input type="checkbox"/> DREDGE		<input type="checkbox"/> LIQUINOX		
SAMPLE OBSERVATIONS		<input type="checkbox"/> CLAY	<input type="checkbox"/> OTHER	<input type="checkbox"/> OTHER		<input type="checkbox"/> OTHER		
ODOR								
COLOR								
FLOC OBSERVED			CLEAR OF LEAF LITTER					

ANALYTICAL PARAMETERS

SURFACE WATER		METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
<input checked="" type="checkbox"/>	VOCs	8260	N	HCl / 4 DEG. C	3 X 40 mL	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Dissolved Metals	6010B	Lab	4 DEG. C	1 X 250 mL	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Hex Cr.	7196A	N	4 DEG. C	1 X 250 mL	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Sulfate/Chloride/Alkalinity	300	N	4 DEG. C	1 X 60 mL	<input type="checkbox"/>
<input type="checkbox"/>	Dissolved Organic/Inorganic Carbon	SM 5310 B	N	4 DEG. C	2 X 40 mL	<input type="checkbox"/>
<input type="checkbox"/>	Sulfide	SM 4500	N	4 DEG. Zinc NAOH	1 X 250 mL	<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>

ANALYTICAL PARAMETERS

SEDIMENT		METHOD NUMBER		PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>

NOTES

wood.

SIGNATURE: Ch M for MAMSampled by: MAM
Prepared by: MAM
Checked by: CTM

FIELD DATA RECORD - SURFACE WATER

PROJECT	HONEYWELL - CONDUCTORLAB, GROTON, MA	JOB NUMBER	3617187421		DATE	4/2/2018		
FIELD SAMPLE ID	C040218-CSW4	ACTIVITY TIME	START	9:45	END	9:55	BOTTLE TIME	9:50
QC SAMPLES COLLECTED		---						
SURFACE WATER DATA				EQUIPMENT USED	TYPE OF SURFACE WATER			
WATER DEPTH AT LOCATION	0.50 ft.	SPEC. COND	610 $\mu\text{S}/\text{cm}$	<input type="checkbox"/> BEAKER	<input checked="" type="checkbox"/> STREAM/ RIVER	DECON FLUIDS USED:		
DEPTH OF SAMPLE FROM SURFACE	0.20 ft.	D.O.	14.57 mg/L	<input checked="" type="checkbox"/> DIRECT DIP	<input type="checkbox"/> LAKE/ POND	<input type="checkbox"/> DI WATER		
TEMPERATURE	2.81 DEG C	SALINITY	--- %	<input type="checkbox"/> PERISTALTIC PUMP	<input type="checkbox"/> SEEP	<input type="checkbox"/> POTABLE WATER		
TURBIDITY	6.62 NTU	ORP	275.0 mV	<input type="checkbox"/> FILTER (0.45 micron)	<input type="checkbox"/> MARSH	<input checked="" type="checkbox"/> NONE		
pH	6.62 UNITS	<input type="checkbox"/> LDPE Tubing & Silicon						
				<input type="checkbox"/> OTHER				
SEDIMENT DATA								
SEDIMENT SAMPLE	START DEPTH	END DEPTH	TYPE OF SEDIMENT	EQUIPMENT FOR COLLECTION	DECON FLUIDS USED			
			<input type="checkbox"/> ORGANIC	<input type="checkbox"/> HAND AUGER	<input type="checkbox"/> DI WATER			
TYPE OF SAMPLE	GRAB		<input type="checkbox"/> SAND	<input type="checkbox"/> S.S. SPOON	<input type="checkbox"/> POTABLE WATER			
SAMPLE OBSERVATIONS			<input type="checkbox"/> GRAVEL	<input type="checkbox"/> ALUMINIUM PAN	<input type="checkbox"/> LIQUINOX			
ODOR			<input type="checkbox"/> CLAY	<input type="checkbox"/> DREDGE	<input type="checkbox"/> OTHER _____			
COLOR			<input type="checkbox"/> OTHER _____	<input type="checkbox"/> OTHER _____				
FLOC OBSERVED			CLEAR OF LEAF LITTER					
ANALYTICAL PARAMETERS								
SURFACE WATER		METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED		
<input checked="" type="checkbox"/> VOCs		8260	N	HCl / 4 DEG. C	3 X 40 mL	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/> Dissolved Metals		6010B	Lab	4 DEG. C	1 X 250 mL	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/> Hex Cr.		7196A	N	4 DEG. C	1 X 250 mL	<input checked="" type="checkbox"/>		
<input type="checkbox"/> Sulfate/Chloride/Alkalinity		300	N	4 DEG. C	1 X 60 mL	<input type="checkbox"/>		
<input type="checkbox"/> Dissolved Organic/Inorganic Carbon		SM 5310 B	N	4 DEG. C	2 X 40 mL	<input type="checkbox"/>		
<input type="checkbox"/> Sulfide		SM 4500	N	4 DEG. Zinc NAOH	1 X 250 mL	<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
ANALYTICAL PARAMETERS								
SEDIMENT		METHOD NUMBER		PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
<input type="checkbox"/>						<input type="checkbox"/>		
NOTES								
SIGNATURE:	<i>John M. for MAM</i>							
Sampled by: MAM Prepared by: MAM Checked by: CTM								

wood.

FIELD DATA RECORD - SURFACE WATER

PROJECT	HONEYWELL - CONDUCTORLAB, GROTON, MA		JOB NUMBER	3617187421		DATE	4/2/2018		
FIELD SAMPLE ID	C040218-CSW5		ACTIVITY TIME	START	9:30	END	9:35	BOTTLE TIME	9:30
QC SAMPLES COLLECTED		---							
SURFACE WATER DATA					EQUIPMENT USED	TYPE OF SURFACE WATER			
WATER DEPTH AT LOCATION	1.00 ft.	SPEC. COND	420 $\mu\text{S}/\text{cm}$	<input type="checkbox"/> BEAKER	<input checked="" type="checkbox"/> STREAM/ RIVER	DECON FLUIDS USED:			
DEPTH OF SAMPLE FROM SURFACE	0.20 ft.	D.O.	12.66 mg/L	<input checked="" type="checkbox"/> DIRECT DIP	<input type="checkbox"/> LAKE/ POND	<input type="checkbox"/> DI WATER			
TEMPERATURE	3.16 DEG C	SALINITY	--- %	<input type="checkbox"/> PERISTALTIC PUMP	<input type="checkbox"/> SEEP	<input type="checkbox"/> POTABLE WATER			
TURBIDITY	0.55 NTU	ORP	289.0 mV	<input type="checkbox"/> FILTER (0.45 micron)	<input type="checkbox"/> MARSH	<input checked="" type="checkbox"/> NONE			
pH	6.09 UNITS	<input type="checkbox"/> LDPE Tubing & Silicon							
					<input type="checkbox"/> OTHER				

SEDIMENT DATA

SEDIMENT SAMPLE	START DEPTH	<input type="checkbox"/>	TYPE OF SEDIMENT	<input type="checkbox"/> ORGANIC	EQUIPMENT FOR COLLECTION	<input type="checkbox"/> HAND AUGER	DECON FLUIDS USED	<input type="checkbox"/> DI WATER
	END DEPTH	<input type="checkbox"/>	<input type="checkbox"/> SAND	<input type="checkbox"/> S.S. SPOON	<input type="checkbox"/> POTABLE WATER			
TYPE OF SAMPLE	GRAB	<input type="checkbox"/>	<input type="checkbox"/> GRAVEL	<input type="checkbox"/> ALUMINIUM PAN	<input type="checkbox"/> LIQUINOX			
SAMPLE OBSERVATIONS		<input type="checkbox"/> CLAY	<input type="checkbox"/> DREDGE	<input type="checkbox"/> OTHER	<input type="checkbox"/> OTHER			
ODOR		<input type="checkbox"/> OTHER						
COLOR								
FLOC OBSERVED			CLEAR OF LEAF LITTER					

ANALYTICAL PARAMETERS

SURFACE WATER		METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
<input checked="" type="checkbox"/> VOCs		8260	N	HCl / 4 DEG. C	3 X 40 mL	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Dissolved Metals		6010B	Lab	4 DEG. C	1 X 250 mL	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Hex Cr.		7196A	N	4 DEG. C	1 X 250 mL	<input checked="" type="checkbox"/>
<input type="checkbox"/> Sulfate/Chloride/Alkalinity		300	N	4 DEG. C	1 X 60 mL	<input type="checkbox"/>
<input type="checkbox"/> Dissolved Organic/Inorganic Carbon		SM 5310 B	N	4 DEG. C	2 X 40 mL	<input type="checkbox"/>
<input type="checkbox"/> Sulfide		SM 4500	N	4 DEG. Zinc NAOH	1 X 250 mL	<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>

ANALYTICAL PARAMETERS

SEDIMENT		METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
<input type="checkbox"/>					<input type="checkbox"/>
<input type="checkbox"/>					<input type="checkbox"/>
<input type="checkbox"/>					<input type="checkbox"/>
<input type="checkbox"/>					<input type="checkbox"/>
<input type="checkbox"/>					<input type="checkbox"/>
<input type="checkbox"/>					<input type="checkbox"/>
<input type="checkbox"/>					<input type="checkbox"/>
<input type="checkbox"/>					<input type="checkbox"/>

NOTES

wood.

SIGNATURE: Chris F. MAMSampled by: MAM
Prepared by: MAM
Checked by: CTM



Soil Sample Field Data Record

Project Name:	Honeywell C-lab	Location:	Groton, MA	Project No.:	3617187421
Client:	Honeywell	Samplers:	Amberlee Clark/Mark Maggiore		
Boring ID:	XRF-30	Date:	5/10/2018	Time:	

Type of Sample:	Analytical Parameters:		
<input type="checkbox"/> Discrete	Sample ID:	CXRF-30(0-5) CXRF-30(5-8)	Sample Time:
<input checked="" type="checkbox"/> Composite	Sample QA/QC:	<input checked="" type="checkbox"/> Total Chromium <input checked="" type="checkbox"/> Hexavalent Chromium	9:10 9:20
	Field Duplicate Collected and ID: MS/MSD	NA	

Sampling Equipment:

- | | |
|---|---|
| <input type="checkbox"/> Hand Auger | <input type="checkbox"/> Trowel |
| <input type="checkbox"/> Shovel | <input checked="" type="checkbox"/> XRF _____ |
| <input checked="" type="checkbox"/> Direct Push | <input type="checkbox"/> XRF DUP _____ |
| <input type="checkbox"/> S.S. Bowl | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> S.S. Spoon | |

Depth of Sample	XRF Results				
	Sample ID	Total Cr Result (ppm)	Lab: Total Cr	Lab: Cr+3	Lab: Cr+6
0-5 feet	CXRF-30(0-5)/TW1	96	43	42.8	0.17 J
0-5 feet	CXRF-30(0-5)/TW1 DUP	102			
5-8 feet	CXRF-30(5-8)/TW1	516	670	669.7	0.25 J
10-11 feet	CXRF-30(10-11)/TW1	291			

Sample Description and Observations

Refusal at 11 feet. Water table ~7.0 feet. Brown ,med silty sands, 0-11 feet. No odor. Install temporary groundwater well (TW-1)



Soil Sample Field Data Record

Project Name: Honeywell C-lab	Location: Groton, MA	Project No.: 3617187421
Client: Honeywell	Samplers: Amberlee Clark/Mark Maggiore	
Boring ID: XRF-31	Date: 5/10/2018	Time: NA
Type of Sample: <input type="checkbox"/> Discrete <input checked="" type="checkbox"/> Composite	Analytical Parameters: Sample ID: CXRF-31(0-5) CXRF-31(5-8) Sample QA/QC: Field Duplicate Collected and ID: MS/MSD NA Total Chromium Hexavalent Chromium	

Sampling Equipment:

- | | |
|---|---|
| <input type="checkbox"/> Hand Auger | <input type="checkbox"/> Trowel |
| <input type="checkbox"/> Shovel | <input checked="" type="checkbox"/> XRF _____ |
| <input checked="" type="checkbox"/> Direct Push | <input type="checkbox"/> XRF DUP _____ |
| <input type="checkbox"/> S.S. Bowl | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> S.S. Spoon | |

Depth of Sample	XRF Results					
	Sample ID	Total Cr Result (ppm)	Lab: Total Cr	Lab: Cr+3	Lab: Cr+6	
0-5 feet	CXRF-31(0-5)/TW2	<130	42	41.5	< 0.45 U	
5-8 feet	CXRF-31(5-8)/TW2	336	300	298	1.9	

Sample Description and Observations

Refusal at 10 feet. Water table ~7.0 feet. Brown ,med silty sands, 0-10 feet. No odor. Install temporary groundwater well (TW-2)



Soil Sample Field Data Record

Project Name: Honeywell C-lab	Location: Groton, MA	Project No.: 3617187421
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Client: Honeywell	Samplers: Amberlee Clark/Mark Maggiore
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Boring ID: XRF-32	Date: 5/10/2018	Time: NA
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Type of Sample:	Analytical Parameters:		
<input type="checkbox"/> Discrete	Sample ID: CXRF-32(0-5)	Sample Time: 9:35	
<input checked="" type="checkbox"/> Composite	CXRF-32(5-8)		9:40
Sample QA/QC:			
MS/MSD	Field Duplicate Collected and ID: NA	<input checked="" type="checkbox"/> Total Chromium	
		<input checked="" type="checkbox"/> Hexavalent Chromium	

Sampling Equipment:

- | | |
|---|---|
| <input type="checkbox"/> Hand Auger | <input type="checkbox"/> Trowel |
| <input type="checkbox"/> Shovel | <input checked="" type="checkbox"/> XRF |
| <input checked="" type="checkbox"/> Direct Push | <input type="checkbox"/> XRF DUP |
| <input type="checkbox"/> S.S. Bowl | <input type="checkbox"/> Other |
| <input type="checkbox"/> S.S. Spoon | |

Depth of Sample	XRF Results				
	Sample ID	Total Cr Result (ppm)	Lab: Total Cr	Lab: Cr+3	Lab: Cr+6
0-5 feet	CXRF-32(0-5)/TW3	<154	41	40.5	< 0.45 U
5-8 feet	CXRF-32(5-8)/TW3	1442	730	723.2	6.8
10-13 feet	CXRF-32(10-13)/TW3	540			

Sample Description and Observations

Refusal at 13 feet. Water table ~7.0 feet. Brown ,med silty sands, 0-13 feet. No odor. Install temporary groundwater well (TW-3)



Soil Sample Field Data Record

Project Name:	Honeywell C-lab	Location:	Groton, MA	Project No.:	3617187421
Client:	Honeywell	Samplers:	Amberlee Clark/Mark Maggiore		
Boring ID:	XRF-33	Date:	5/10/2018	Time:	NA

Type of Sample:	Analytical Parameters:		
	Sample ID:	CXRF-33(0-5) CXRF-33(5-8)	Sample Time: 9:45 9:50
<input type="checkbox"/> Discrete	Sample QA/QC:	<input checked="" type="checkbox"/> Total Chromium	
<input checked="" type="checkbox"/> Composite	Field Duplicate Collected and ID: MS/MSD NA	<input checked="" type="checkbox"/> Hexavalent Chromium	

Sampling Equipment:

- | | |
|---|---|
| <input type="checkbox"/> Hand Auger | <input type="checkbox"/> Trowel |
| <input type="checkbox"/> Shovel | <input checked="" type="checkbox"/> XRF _____ |
| <input checked="" type="checkbox"/> Direct Push | <input type="checkbox"/> XRF DUP _____ |
| <input type="checkbox"/> S.S. Bowl | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> S.S. Spoon | |

Depth of Sample	XRF Results				
	Sample ID	Total Cr Result (ppm)	Lab: Total Cr	Lab: Cr+3	Lab: Cr+6
0-5 feet	CXRF-33(0-5)/TW4	88	54	53.8	0.17 J
5-8 feet	CXRF-33(5-8)/TW4	1106	840	838	2.1
10-12 feet	CXRF-33(10-12)/TW4	759			

Sample Description and Observations

Refusal at 13 feet. Water table ~7.0 feet. Brown ,med silty sands, 0-13 feet. No odor. Install temporary groundwater well (TW-3)



Soil Sample Field Data Record

Project Name:	Honeywell C-lab	Location:	Groton, MA	Project No.:	3617187421
Client:	Honeywell	Samplers:	Amberlee Clark/Mark Maggiore		
Boring ID:	XRF-34	Date:	5/10/2018	Time:	NA

Type of Sample:	Analytical Parameters:		
<input type="checkbox"/> Discrete	Sample ID:	CXRF-34(0-5) CXRF-34(5-8)	Sample Time: 12:35 12:40
<input checked="" type="checkbox"/> Composite	Sample QA/QC:	<input checked="" type="checkbox"/> Total Chromium <input checked="" type="checkbox"/> Hexavalent Chromium Field Duplicate Collected and ID: MS/MSD NA	

Sampling Equipment:

- | | |
|---|---|
| <input type="checkbox"/> Hand Auger | <input type="checkbox"/> Trowel |
| <input type="checkbox"/> Shovel | <input checked="" type="checkbox"/> XRF _____ |
| <input checked="" type="checkbox"/> Direct Push | <input type="checkbox"/> XRF DUP _____ |
| <input type="checkbox"/> S.S. Bowl | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> S.S. Spoon | |

Depth of Sample	XRF Results				
	Sample ID	Total Cr Result (ppm)	Lab: Total Cr	Lab: Cr+3	Lab: Cr+6
0-5 feet	CXRF-34(0-5)	96	62	61.8	0.19 J
5-8 feet	CXRF-34(5-8)	441	340	339.4	< 0.61 U
8-10 feet	CXRF-34(8-10)	389			

Sample Description and Observations

Refusal at 10 feet. Water table ~7.0 feet. Brown ,med silty sands, 0-10 feet.



Soil Sample Field Data Record

Project Name:	Honeywell C-lab	Location:	Groton, MA	Project No.:	3617187421
Client:	Honeywell	Samplers:	Amberlee Clark/Mark Maggiore		
Boring ID:	XRF-35	Date:	5/10/2018	Time:	NA

Type of Sample:	Analytical Parameters:		
<input type="checkbox"/> Discrete <input checked="" type="checkbox"/> Composite	Sample ID: CXRF-35(0-5) CXRF-35(8-10)	Sample Time: 12:45 12:50	
	Sample QA/QC: Field Duplicate Collected and ID: MS/MSD NA	<input checked="" type="checkbox"/> Total Chromium <input checked="" type="checkbox"/> Hexavalent Chromium	

Sampling Equipment:

<input type="checkbox"/> Hand Auger	<input type="checkbox"/> Trowel
<input type="checkbox"/> Shovel	<input checked="" type="checkbox"/> XRF
<input checked="" type="checkbox"/> Direct Push	<input type="checkbox"/> XRF DUP
<input type="checkbox"/> S.S. Bowl	<input type="checkbox"/> Other
<input type="checkbox"/> S.S. Spoon	

Depth of Sample	XRF Results				
	Sample ID	Total Cr Result (ppm)	Lab: Total Cr	Lab: Cr+3	Lab: Cr+6
0-5 feet	CXRF-35(0-5)	161	85	84.8	0.18 J
5-8 feet	CXRF-35(5-8)	157			
8-10 feet	CXRF-35(8-10)	778	1100	1099.8	0.18 J
10-14 feet	CXRF-35(10-14)	396			

Sample Description and Observations

Refusal at 14 feet. Water table ~7.0 feet. Brown ,med silty sands, 0-14 feet.



Soil Sample Field Data Record

Project Name: Honeywell C-lab	Location: Groton, MA	Project No.: 3617187421
Client: Honeywell	Samplers: Amberlee Clark/Mark Maggiore	
Boring ID: XRF-36	Date: 5/10/2018	Time: NA
Type of Sample: <input type="checkbox"/> Discrete <input checked="" type="checkbox"/> Composite	Analytical Parameters: Sample ID: CXRF-36(0-5) CXRF-36(10-13) Sample QA/QC: Field Duplicate Collected and ID: MS/MSD NA Total Chromium Hexavalent Chromium	

Sampling Equipment:

- | | |
|---|---|
| <input type="checkbox"/> Hand Auger | <input type="checkbox"/> Trowel |
| <input type="checkbox"/> Shovel | <input checked="" type="checkbox"/> XRF _____ |
| <input checked="" type="checkbox"/> Direct Push | <input type="checkbox"/> XRF DUP _____ |
| <input type="checkbox"/> S.S. Bowl | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> S.S. Spoon | |

Depth of Sample	XRF Results				
	Sample ID	Total Cr Result (ppm)	Lab: Total Cr	Lab: Cr+3	Lab: Cr+6
0-5 feet	CXRF-36(0-5)	149	130	129.3	0.73
5-7 feet	CXRF-36(5-7)	102			
5-7 feet	CXRF-36(5-7) DUP	106			
7-10 feet	CXRF-36(7-10)	<120			
10-13 feet	CXRF-36(10-13)	466	230	227.6	2.4

Sample Description and Observations

Refusal at 13 feet. Water table ~7.0 feet. Brown ,med silty sands, 0-13 feet.



Soil Sample Field Data Record

Project Name: Honeywell C-lab	Location: Groton, MA	Project No.: 3617187421
Client: Honeywell	Samplers: Amberlee Clark/Mark Maggiore	
Boring ID: XRF-37	Date: 5/10/2018	Time: NA
Type of Sample: <input type="checkbox"/> Discrete <input checked="" type="checkbox"/> Composite	Analytical Parameters: Sample ID: CXRF-36(0-5) CXRF-37(7-10) Sample QA/QC: Field Duplicate Collected and ID: MS/MSD NA Total Chromium Hexavalent Chromium	

Sampling Equipment:

- | | |
|---|---|
| <input type="checkbox"/> Hand Auger | <input type="checkbox"/> Trowel |
| <input type="checkbox"/> Shovel | <input checked="" type="checkbox"/> XRF _____ |
| <input checked="" type="checkbox"/> Direct Push | <input type="checkbox"/> XRF DUP _____ |
| <input type="checkbox"/> S.S. Bowl | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> S.S. Spoon | |

Depth of Sample	XRF Results				
	Sample ID	Total Cr Result (ppm)	Lab: Total Cr	Lab: Cr+3	Lab: Cr+6
0-5 feet	CXRF-37(0-5)	<170	54	53.8	0.16 J
5-7 feet	CXRF-37(5-7)	99			
7-10 feet	CXRF-37(7-10)	238	300	299.7	0.29 J
10-14 feet	CXRF-37(10-14)	150			

Sample Description and Observations

Refusal at 14 feet. Water table ~7.0 feet. Brown ,med silty sands, 0-14 feet.



Soil Sample Field Data Record

Project Name:	Honeywell C-lab	Location:	Groton, MA	Project No.:	3617187421
Client:	Honeywell	Samplers:	Amberlee Clark/Mark Maggiore		
Boring ID:	XRF-38	Date:	5/10/2018	Time:	NA

Type of Sample:	Analytical Parameters: Sample ID: CXRF-38(0-5) Sample Time: 13:20 CXRF-38(7-10) 12:25		
<input type="checkbox"/> Discrete			
<input checked="" type="checkbox"/> Composite	Sample QA/QC: Field Duplicate Collected and ID: <input checked="" type="checkbox"/> Total Chromium MS/MSD NA <input checked="" type="checkbox"/> Hexavalent Chromium		

Sampling Equipment:

- | | |
|---|---|
| <input type="checkbox"/> Hand Auger | <input type="checkbox"/> Trowel |
| <input type="checkbox"/> Shovel | <input checked="" type="checkbox"/> XRF _____ |
| <input checked="" type="checkbox"/> Direct Push | <input type="checkbox"/> XRF DUP _____ |
| <input type="checkbox"/> S.S. Bowl | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> S.S. Spoon | |

Depth of Sample	XRF Results				
	Sample ID	Total Cr Result (ppm)	Lab: Total Cr	Lab: Cr+3	Lab: Cr+6
0-5 feet	CXRF-38(0-5)	154	110	109.4	0.61
5-7 feet	CXRF-38(5-7)	424			
7-10 feet	CXRF-38(7-10)	874	620	617.7	2.3
10-12 feet	CXRF-38(10-12)	444			

Sample Description and Observations

Refusal at 12 feet. Water table ~7.0 feet. Brown ,med silty sands, 0-12 feet.



Soil Sample Field Data Record

Project Name: Honeywell C-lab	Location: Groton, MA	Project No.: 3617187421
Client: Honeywell	Samplers: Amberlee Clark/Mark Maggiore	
Boring ID: XRF-39	Date: 5/10/2018	Time: NA
Type of Sample: <input type="checkbox"/> Discrete <input checked="" type="checkbox"/> Composite	Analytical Parameters: Sample ID: CXRF-39(0-5) CXRF-39(7-10) Sample QA/QC: Field Duplicate Collected and ID: MS/MSD NA Total Chromium Hexavalent Chromium	

Sampling Equipment:

- | | |
|---|---|
| <input type="checkbox"/> Hand Auger | <input type="checkbox"/> Trowel |
| <input type="checkbox"/> Shovel | <input checked="" type="checkbox"/> XRF _____ |
| <input checked="" type="checkbox"/> Direct Push | <input type="checkbox"/> XRF DUP _____ |
| <input type="checkbox"/> S.S. Bowl | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> S.S. Spoon | |

Depth of Sample	XRF Results				
	Sample ID	Total Cr Result (ppm)	Lab: Total Cr	Lab: Cr+3	Lab: Cr+6
0-5 feet	CXRF-39(0-5)	<123	38	37.5	< 0.46 U
5-7 feet	CXRF-39(5-7)	394			
7-10 feet	CXRF-39(7-10)	714	930	929.8	0.22 J
10-12 feet	CXRF-39(10-12)	249			
10-12 feet	CXRF-39(10-12) DUP	262			

Sample Description and Observations

Refusal at 12 feet. Water table ~7.0 feet. Brown ,med silty sands, 0-12 feet.

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME: Honeywell - Conductorlab Site, Groton, MA
 PROJECT NUMBER: 3617187421 (SW-SED Sampling)
 PROJECT LOCATION: Groton, MA
 WEATHER CONDITIONS (AM): Sunny, humid, temps in ~ 70's
 WEATHER CONDITIONS (PM): "

TASK NO: DATE: 7/2/2018
 WOOD CREW: MAM/ TR
 SAMPLER NAME: Mark Maggiore
 SAMPLER SIGNATURE: 
 CHECKED BY: CTM DATE: 7/31/2018

MULTI-PARAMETER WATER QUALITY METER

METER TYPE	YSI	AM CALIBRATION				PM CALIBRATION CHECK		
		Start Time:	8:00	End Time:	8:15	Start Time:	15:00	End Time:
MODEL NO.	556 MPS					Standard Value	Meter Value	*Acceptance Criteria (PM)
UNIT ID NO.	M015-01					7.0	6.87	+/- 0.3 pH Units
	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)		240	231	+/- 10 mV
pH (4)	SU	4.0	4.00	+/- 0.1 pH Units		1413	1408	+/- 5% of standard
pH (7)	SU	7.0	7.04	+/- 0.1 pH Units		99.7	96.8	%
pH (10)	SU	10.0	---	+/- 0.1 pH Units		8.14	6.74	+/- 0.5 mg/L of sat. value
Redox	+/- mV	240	233	+/- 10 mV		DO (<0.1)	---	< 0.5 mg/L
Sp. Conductivity	uS/cm	1413	1424	+/- 3% of standard			34.80	°C
DO (saturated)	%	100	99.7	+/- 2% of standard			756.6	mmHg
DO (saturated)	mg/L ¹ (see Chart 1)		8.14	+/- 0.2 mg/L				
DO (<0.1)	mg/L	<0.1	---	< 0.5 mg/L				
Temperature	°C		25.52					
Baro. Press.	mmHg		757.9					

TURBIDITY METER

METER TYPE	Hach	Units	Standard	Meter	Standard	Meter	*Acceptance
			Value	Value	Value	Value	Criteria (PM)
MODEL NO.	2100Q						+/- 0.3 NTU of stan.
UNIT ID NO.	M024-37		Standard	NTU	10	10.6	
			Standard	NTU	20	20.3	+/- 5% of standard
			Standard	NTU	100	98.3	+/- 5% of standard
			Standard	NTU	800	781	+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE	Background	ppmv	<0.1	<0.1	within 5 ppmv of BG
MODEL NO.					+/- 10% of standard
UNIT ID NO.		Span Gas	ppmv	100	

O₂-LEL 4 GAS METER

METER TYPE	Methane	%	50	50	+/- 10% of standard
		O ₂	20.9	20.9	+/- 10% of standard
		H ₂ S	25	25	+/- 10% of standard
		CO	50	50	+/- 10% of standard

OTHER METER

METER TYPE							See Notes Below
MODEL NO.							for Additional
UNIT ID NO.							Information



Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.



Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

Deionized Water Source: Groton Site
 Lot#/Date Produced: _____
 Trip Blank Source: Lab
 Sample Preservatives Source: Lab
 Disposable Filter Type: 0.45μm
 Calibration Fluids / Standard Source:
 - DO Calibration Fluid (<0.1 mg/L) ---
 - Other ---
 - Other ---
 - Other ---

	Cal. Standard Lot Number	Exp. Date
pH (4)	7GI006	9/19
pH (7)	7GH1000	8/19
pH (10)	---	---
ORP	1600	5/22
Conductivity	7GH1079	8/18
10 Turb. Stan.	M024-37 kit	"
20 Turb. Stan.	"	"
100 Turb. Stan.	"	"
800 Turb. Stan.	"	"
PID Span Gas	---	---
O ₂ -LEL Span Gas	---	---
DO	---	---

NOTES:



* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-Field Calibration) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additional acceptance criteria obtained from instrument specific manufacturer recommendations.

** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.

1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-Field Calibration), dated 1/19/2010.

FIELD DATA RECORD - SURFACE WATER/ SEDIMENT

PROJECT	HONEYWELL - CONDUCTORLAB, GROTON, MA	JOB NUMBER	3617187421	DATE	7/2/2018
FIELD SAMPLE ID	C070218-CSW-BKG001 C070218-CSD-BKG001	ACTIVITY TIME	START 14:00 END 14:30	BOTTLE TIME	14:00
QC SAMPLES COLLECTED	---			BOTTLE TIME	14:20

SURFACE WATER DATA

WATER DEPTH AT LOCATION	0.25 ft.	SPEC. COND	329 $\mu\text{S}/\text{cm}$	EQUIPMENT USED	<input type="checkbox"/> BEAKER	<input checked="" type="checkbox"/> STREAM/ RIVER	DECON FLUIDS USED:
DEPTH OF SAMPLE FROM SURFACE	0.10 ft.	D.O.	1.72 mg/L	<input type="checkbox"/> DIRECT DIP	<input type="checkbox"/> LAKE/ POND	<input type="checkbox"/> DI WATER	
TEMPERATURE	17.19 DEG C	SALINITY	--- %	<input checked="" type="checkbox"/> PERISTALTIC PUMP	<input type="checkbox"/> SEEP	<input type="checkbox"/> POTABLE WATER	
TURBIDITY	2.30 NTU	ORP	-18.6 mV	<input type="checkbox"/> FILTER (0.45 micron)	<input type="checkbox"/> MARSH	<input checked="" type="checkbox"/> NONE	
pH	7.16 UNITS			<input checked="" type="checkbox"/> LDPE Tubing & Silicon	<input type="checkbox"/> OTHER		

SEDIMENT DATA

SEDIMENT SAMPLE	START DEPTH	0 ft.	TYPE OF SEDIMENT	<input type="checkbox"/> ORGANIC	EQUIPMENT FOR COLLECTION	<input type="checkbox"/> HAND AUGER	DECON FLUIDS USED
	END DEPTH	0.25 ft.	<input checked="" type="checkbox"/> SAND	<input type="checkbox"/> S.S. SPOON	<input checked="" type="checkbox"/> DI WATER		
TYPE OF SAMPLE	COMPOSITE	Y	<input type="checkbox"/> GRAVEL	<input checked="" type="checkbox"/> S.S. PAN	<input type="checkbox"/> POTABLE WATER		
SAMPLE OBSERVATIONS			<input type="checkbox"/> CLAY	<input type="checkbox"/> DREDGE	<input checked="" type="checkbox"/> LIQUINOX		
ODOR	Slight sulfur		<input type="checkbox"/> OTHER	<input type="checkbox"/> OTHER	<input type="checkbox"/> OTHER		
COLOR	Black						
FLOC OBSERVED	None	CLEAR OF LEAF LITTER	Min. decaying	OBSERVATIONS	Animal tracks; decaying leaves		

ANALYTICAL PARAMETERS

SURFACE WATER		METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
<input checked="" type="checkbox"/>	VOCs	8260	N	HCl / 4 DEG. C	3 X 40 mL	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Dissolved Metals	6010B	Lab	4 DEG. C	1 X 250 mL	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Hex Cr.	7196A	N	4 DEG. C	1 X 250 mL	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Hardness		N	4 DEG. C		<input checked="" type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>

ANALYTICAL PARAMETERS

SEDIMENT		METHOD NUMBER		PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
<input checked="" type="checkbox"/>	VOCs: % Solids	8260		DI/MeOH / 4 DEG. C	3x40 mL VOA: 250 ml	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Metals	6010		4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Hex Cr.	7196A		4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Pesticides	8081		4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	TOC	Lloyd Kahn		4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Trivalent Cr.	3500		4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	SVOCs	8270		4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>

NOTES Surface Water: Samples collected and submitted to ESI for *Ceriodaphnia dubia* and TIE testing.
 Sediment: Samples collected and submitted to ESI (On-Hold) for porewater analysis and *hyalella* testing.



SIGNATURE: Chris for MAM

Sampled by: MAM
 Prepared by: MAM
 Checked by: CTM

FIELD DATA RECORD - SURFACE WATER/ SEDIMENT

PROJECT HONEYWELL - CONDUCTORLAB, GROTON, MA

JOB NUMBER 3617187421

DATE 7/2/2018

FIELD SAMPLE ID

C070218-CSW3

ACTIVITY TIME

START

12:00

END

12:30

BOTTLE TIME 12:00

BOTTLE TIME 12:25

QC SAMPLES COLLECTED

SURFACE WATER DATA

WATER DEPTH AT LOCATION 0.80 ft.

SPEC. COND 294 $\mu\text{S}/\text{cm}$

EQUIPMENT USED

TYPE OF SURFACE WATER

DEPTH OF SAMPLE FROM SURFACE 0.30 ft.

D.O. 4.94 mg/L

 BEAKER STREAM/ RIVER

DECON FLUIDS USED:

 DIRECT DIP LAKE/ POND DI WATER PERISTALTIC PUMP SEEP POTABLE WATER

TEMPERATURE 12.52 DEG C

SALINITY --- %

 FILTER (0.45 micron) MARSH NONE

TURBIDITY 0.24 NTU

ORP -4.0 mV

 LDPE Tubing & Silicon OTHER

pH 6.56 UNITS

SEDIMENT DATA

SEDIMENT SAMPLE START DEPTH 0 ft.

0 ft.

TYPE OF SEDIMENT

EQUIPMENT FOR COLLECTION

DECON FLUIDS USED

END DEPTH 0.25 ft.

0.25 ft.

 ORGANIC HAND AUGER DI WATER

TYPE OF SAMPLE COMPOSITE Y

Y

 SAND S.S. SPOON POTABLE WATER

SAMPLE OBSERVATIONS

 GRAVEL S.S. PAN LIQUINOX

ODOR None

 CLAY DREDGE OTHER

COLOR Black

 OTHER OTHER

FLOC OBSERVED None

None

CLEAR OF LEAF LITTER

Yes

OBSERVATIONS Mostly gravel

ANALYTICAL PARAMETERS

SURFACE WATER

METHOD NUMBER

FILTERED

PRESERVATION METHOD

VOLUME REQUIRED

SAMPLE COLLECTED

- VOCs
- Dissolved Metals
- Hex Cr.
- Hardness
-
-
-
-
-
-
-
-

8260

N

HCl / 4 DEG. C

3 X 40 mL

6010B

Lab

4 DEG. C

1 X 250 mL

7196A

N

4 DEG. C

1 X 250 mL

N

4 DEG. C

ANALYTICAL PARAMETERS

SEDIMENT

METHOD NUMBER

PRESERVATION METHOD

VOLUME REQUIRED

SAMPLE COLLECTED

- VOCs: % Solids
- Metals
- Hex Cr.
- Pesticides
- TOC
- Trivalent Cr.
- SVOCs

8260

DI/MeOH / 4 DEG. C

3x40 mL VOA: 250 ml

6010

4 DEG. C

1 X 4 oz.

7196A

4 DEG. C

1 X 4 oz.

8081

4 DEG. C

1 X 4 oz.

Lloyd Kahn

4 DEG. C

1 X 4 oz.

3500

4 DEG. C

1 X 4 oz.

8270

4 DEG. C

1 X 4 oz.

NOTES

Surface Water: Samples collected and submitted to ESI for *Ceriodaphnia dubia* and TIE testing.Sediment: Samples collected and submitted to ESI (On-Hold) for porewater analysis and *hyalella* testing.

wood.

SIGNATURE: Sampled by: MAM
Prepared by: MAM
Checked by: CTM

FIELD DATA RECORD - SURFACE WATER/ SEDIMENT

PROJECT	HONEYWELL - CONDUCTORLAB, GROTON, MA	JOB NUMBER	3617187421	DATE	7/2/2018
FIELD SAMPLE ID	C070218-CSW3A C070218-CSD3A	ACTIVITY TIME	START 11:00 END 11:45	BOTTLE TIME	11:00
QC SAMPLES COLLECTED	---			BOTTLE TIME	11:30

SURFACE WATER DATA

WATER DEPTH AT LOCATION	0.20 ft.	SPEC. COND	329 $\mu\text{S}/\text{cm}$	EQUIPMENT USED	<input type="checkbox"/> BEAKER	<input checked="" type="checkbox"/> STREAM/ RIVER	DECON FLUIDS USED:
DEPTH OF SAMPLE FROM SURFACE	0.10 ft.	D.O.	7.74 mg/L	<input type="checkbox"/> DIRECT DIP	<input type="checkbox"/> LAKE/ POND	<input type="checkbox"/> DI WATER	
TEMPERATURE	14.56 DEG C	SALINITY	--- %	<input checked="" type="checkbox"/> PERISTALTIC PUMP	<input type="checkbox"/> SEEP	<input type="checkbox"/> POTABLE WATER	
TURBIDITY	2.13 NTU	ORP	34.5 mV	<input type="checkbox"/> FILTER (0.45 micron)	<input type="checkbox"/> MARSH	<input checked="" type="checkbox"/> NONE	
pH	8.01 UNITS			<input checked="" type="checkbox"/> LDPE Tubing & Silicon	<input type="checkbox"/> OTHER		

SEDIMENT DATA

SEDIMENT SAMPLE	START DEPTH	0 ft.	TYPE OF SEDIMENT	<input type="checkbox"/> ORGANIC	EQUIPMENT FOR COLLECTION	<input type="checkbox"/> HAND AUGER	DECON FLUIDS USED	<input checked="" type="checkbox"/> DI WATER
	END DEPTH	0.5 ft.	<input checked="" type="checkbox"/> SAND	<input type="checkbox"/> S.S. SPOON	<input type="checkbox"/> S.S. PAN	<input type="checkbox"/> POTABLE WATER		
TYPE OF SAMPLE	COMPOSITE	Y	<input checked="" type="checkbox"/> GRAVEL	<input type="checkbox"/> DREDGE	<input type="checkbox"/> LIQUINOX			
SAMPLE OBSERVATIONS	ODOR	None	<input type="checkbox"/> CLAY	<input type="checkbox"/> OTHER	<input type="checkbox"/> OTHER	OTHER		
COLOR	Black							
FLOC OBSERVED	None		CLEAR OF LEAF LITTER	Yes	OBSERVATIONS	Mostly gravel		

ANALYTICAL PARAMETERS

SURFACE WATER		METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
<input checked="" type="checkbox"/>	VOCs	8260	N	HCl / 4 DEG. C	3 X 40 mL	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Dissolved Metals	6010B	Lab	4 DEG. C	1 X 250 mL	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Hex Cr.	7196A	N	4 DEG. C	1 X 250 mL	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Hardness		N	4 DEG. C		<input checked="" type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>
<input type="checkbox"/>						<input type="checkbox"/>

ANALYTICAL PARAMETERS

SEDIMENT		METHOD NUMBER		PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
<input checked="" type="checkbox"/>	VOCs: % Solids	8260		DI/MeOH / 4 DEG. C	3x40 mL VOA: 250 ml	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Metals	6010		4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Hex Cr.	7196A		4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Pesticides	8081		4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	TOC	Lloyd Kahn		4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Trivalent Cr.	3500		4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	SVOCs	8270		4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>

NOTES Surface Water: Samples collected and submitted to ESI for *Ceriodaphnia dubia* and TIE testing.
 Sediment: Samples collected and submitted to ESI (On-Hold) for porewater analysis and *hyalella* testing.



SIGNATURE: 

Sampled by: MAM
 Prepared by: MAM
 Checked by: CTM

FIELD DATA RECORD - SURFACE WATER/ SEDIMENT

PROJECT	HONEYWELL - CONDUCTORLAB, GROTON, MA	JOB NUMBER	3617187421	DATE	7/2/2018
FIELD SAMPLE ID	C070218-CSW5 C070218-CSD5	ACTIVITY TIME	START 9:00 END 10:15	BOTTLE TIME	9:15 BOTTLE TIME 10:00
QC SAMPLES COLLECTED	---				

SURFACE WATER DATA

WATER DEPTH AT LOCATION	0.20 ft.	SPEC. COND	902 $\mu\text{S}/\text{cm}$	<input type="checkbox"/> BEAKER	<input checked="" type="checkbox"/> STREAM/ RIVER	DECON FLUIDS USED:
DEPTH OF SAMPLE FROM SURFACE	0.10 ft.	D.O.	4.72 mg/L	<input type="checkbox"/> DIRECT DIP	<input type="checkbox"/> LAKE/ POND	<input type="checkbox"/> DI WATER
TEMPERATURE	15.60 DEG C	SALINITY	--- %	<input checked="" type="checkbox"/> PERISTALTIC PUMP	<input type="checkbox"/> SEEP	<input type="checkbox"/> POTABLE WATER
TURBIDITY	1.99 NTU	ORP	231.0 mV	<input type="checkbox"/> FILTER (0.45 micron)	<input type="checkbox"/> MARSH	<input checked="" type="checkbox"/> NONE
pH	7.01 UNITS			<input checked="" type="checkbox"/> LDPE Tubing & Silicon	<input type="checkbox"/> OTHER _____	

SEDIMENT DATA

SEDIMENT SAMPLE	START DEPTH	<input type="text" value="0 ft."/>	TYPE OF SEDIMENT	EQUIPMENT FOR COLLECTION	DECON FLUIDS USED
	END DEPTH	<input type="text" value="0.25 ft."/>	<input type="checkbox"/> ORGANIC	<input type="checkbox"/> HAND AUGER	<input checked="" type="checkbox"/> DI WATER
TYPE OF SAMPLE	COMPOSITE	<input checked="" type="checkbox" value="Y"/>	<input checked="" type="checkbox"/> SAND (Fine)	<input checked="" type="checkbox"/> S.S. SPOON	<input type="checkbox"/> POTABLE WATER
SAMPLE OBSERVATIONS			<input type="checkbox"/> GRAVEL	<input checked="" type="checkbox"/> S.S. PAN	<input checked="" type="checkbox"/> LIQUINOX
ODOR <u>None</u>			<input type="checkbox"/> CLAY	<input type="checkbox"/> DREDGE	<input type="checkbox"/> OTHER _____
COLOR	<u>Black/ Brown</u>		<input type="checkbox"/> OTHER_____	<input type="checkbox"/> OTHER_____	
FLOC OBSERVED	<u>None</u>		CLEAR OF LEAF LITTER	<u>Decayed</u>	OBSERVATIONS <u>Worms and beetles</u>

ANALYTICAL PARAMETERS

ANALYTICAL PARAMETERS

SEDIMENT	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
<input checked="" type="checkbox"/> VOCs: % Solids	8260	DI/MeOH / 4 DEG. C	3x40 mL VOA: 250 ml	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Metals	6010	4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Hex Cr.	7196A	4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Pesticides	8081	4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> TOC	Lloyd Kahn	4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Trivalent Cr.	3500	4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> SVOCs	8270	4 DEG. C	1 X 4 oz.	<input checked="" type="checkbox"/>

NOTES Surface Water: Samples collected and submitted to ESI for *Ceriodaphnia dubia* and TIE testing.
Sediment: Samples collected and submitted to ESI (On-Hold) for porewater analysis and *hyalella* testing.

wood.

SIGNATURE: Jin Soo Kim, M.D.

Sampled by: MAM
Prepared by: MAM
Checked by: CTM

APPENDIX C

**DATA VALIDATION REPORTS AND
ANALYTICAL DATA PACKAGES (*PROVIDED ON CD*)**

DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER AND SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

1.0 INTRODUCTION

Data validation was completed on samples collected during the groundwater and surface water sampling event completed in April 2018. A summary of samples included in this report is presented in Table 1. Samples were reported in data packages 480-133458-1, 480-133840-1, 480-133885-1, 480-133969-1, 480-134067-1 and 480-134154-1. Samples were analyzed by the following Test America Laboratory (TAL):

TAL BUF- Test America Buffalo, Amherst, NY

The following U.S. Environmental Protection Agency (USEPA) SW-846 (USEPA, 1996a) analytical methods were performed:

- Volatile organic compounds (VOCs) by USEPA Method 8260C
- Dissolved Metals by USEPA Method 6010
- Total Chromium by USEPA Method 6010
- Hexavalent chromium by USEPA Method 7196A

Data validation was completed using Level II procedures described for Honeywell projects. Quality control (QC) data were compared to limits established for the Massachusetts Contingency Plan (MCP) in the Massachusetts Compendium of analytical methods (MassDEP, 2010). Data qualifiers were added to results if needed in accordance with general procedures described in USEPA data validation guidelines (USEPA, 1996b). A summary of QC limits used during this review is presented on Table 2.

During the Level II data validation the following data quality indicators are reviewed.

- Lab Report Narrative
- Data Completeness and Chain of Custody
- Sample Collection and Holding Times
- Blanks
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)
- Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- Field Duplicates
- Surrogate Spikes
- Reporting Limits
- Electronic Data Verification

Data reviews are completed using laboratory QC summary forms. Data qualifications are completed if necessary in accordance with the guidelines using the following qualifiers:

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

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.

The Level II validation qualification actions for this data set and associated validation reason codes are presented on Table 3. The following data validation reason codes were applied to one or more sample results.

BL1=Result qualified due to laboratory blank
BL2=Result qualified due to field or equipment blank
HTA=Analytical Holding Time exceeded
MSL=Matrix spike recovery less than the lower limit

2.0 DATA VALIDATION ACTIONS AND OBSERVATIONS

Quality control (QC) parameters and measurements checked during validation met requirements in the analytical method and/or validation guidelines. Unless specified below, results are interpreted to be usable as reported by the laboratory.

2.1 VOCs

Data were evaluated for the following parameters:

- * Collection and Preservation
- * Holding Times
- * Data Completeness
- Blank Contamination
- * LCS/LCSD
- MS/MSD
- * Field Duplicates
- * Surrogate Recoveries
- Project Reporting Limits

* - Validation checks met project and method goals.

Blanks

Methylene Chloride (0.678 µg/L) was detected below the reporting limit in the associated method blank of batch 409598. Methylene chloride is considered a common laboratory contaminant, and hence an action limit was established at ten times of the reported blank concentration. Methylene chloride result in associated sample C041118-PP2 was detected less than the action limit and qualified as non-detect (U) at the reporting limit with reason code BL1.

Acetone and methylene chloride were detected below the reporting limit in C041318-RB1 (28 µg/L), C041318-RB2 (14 µg/L) and C041318-RB1 (0.44 µg/L), C041318-RB2 (0.49 µg/L) respectively. Acetone and methylene chloride were considered as common laboratory contaminant. Hence an action limit was established at ten times of the reported blank concentration. Result of acetone and methylene chloride in associated samples were detected less than the action limit, and results were qualified as non-detect (U) with reason code BL2

MS/MSD

MS and MSD analyses were completed using sample C041018-CLW19B. The MS percent recovery for 1,4-dioxane (59) was lower than the QC limit of 70, which may indicate low bias.

1,4-Dioxane was not detected in sample C041018-CLW19B and its field duplicate C041018-CLW19B DUP, and reporting limits were qualified as estimated (UJ) with reason code MSL.

Reporting Limits:

A subset of samples was analyzed at a dilution due to concentrations of target compounds. Reporting limits for target compounds in the diluted samples are elevated due to dilution. Actual detection limits are presented on Table 4.

2.2 Metals

Data were evaluated for the following parameters:

- * Collection and Preservation
- * Holding Times
- * Data Completeness
- * Blank Contamination
- * LCS/LCSD
- * MS/MSD
- * Field Duplicates
- * Project Reporting Limits

* - Validation checks met project and method goals.

No QC issues were identified.

2.3 General Chemistry – Hexavalent Chromium

Data were evaluated for the following parameters:

- * Collection and Preservation
- Holding Times
- * Data Completeness
- * Blank Contamination
- * LCS/LCSD
- * MS/MSD
- * Field Duplicates
- * Laboratory Duplicates
- * Project Reporting Limits

* - Validation checks met project and method goals.

Holding Time

The holding time goal for off-site chromium, hexavalent is to complete analysis within 24 hours of sample collection. Samples C040918-CLW8, C040918-DMWA, C040918-DMWB and C040918-OSW7A were analyzed beyond the 24 hour hold time. Results for chromium, hexavalent in above samples were qualified estimated (J/UJ) with reason codes HTA.

References:

American Public Health Association (APHA), 2008. "Standard Methods for Examination of Water and Wastewater"; On-line Publication; APHA, 1015 Fifteenth St., NW. Washington, D.C. 20005.

Massachusetts Department of Environmental Protection (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.

U.S. Environmental Protection Agency (USEPA), 1996a. "Test Methods for Evaluating Solid Waste"; Laboratory Manual Physical/Chemical Methods; Office of Solid Waste and Emergency Response; Washington, DC; SW-846; November 1986; Revision 4 -December 1996.

U.S. Environmental Protection Agency (USEPA), 1996b. "Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses"; Quality Assurance Unit Staff; Office of Environmental Measurement and Evaluation; December, 1996.

Data Validator: Bindu Lingaiah



May 09, 2018

Senior Chemist: Chris Ricardi, NRCC-EAC



May 21, 2018

TABLE 1
SAMPLE AND ANALYTICAL SUMMARY
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

				Parameter	VOCs	Dissolved Metals	Chromium (Total)	Cr (VI)
				Method	SW8260C	SW846 6010	SW846 6010	SW846 7196A
SDG	Field Sample ID	Location ID	Type	Date				
480-133458-1	CO40218-CSW2	CSW-2	REG	4/2/2018	71	6		1
480-133458-1	CO40218-CSW3	CSW-3	REG	4/2/2018	71	6		1
480-133458-1	CO40218-CSW3A	CSW-3A	REG	4/2/2018	71	6		1
480-133458-1	CO40218-CSW3DUP	CSW-3	FD	4/2/2018	71	6		1
480-133458-1	CO40218-CSW4	CSW-4	REG	4/2/2018	71	6		1
480-133458-1	CO40218-CSW5	CSW-5	REG	4/2/2018	71	6		1
480-133840-1	C040918-CLW8	CLW-8	REG	4/9/2018	71		1	1
480-133840-1	C040918-DMWA	DMW-A	REG	4/9/2018	71		1	1
480-133840-1	C040918-DMWB	DMW-B	REG	4/9/2018	71		1	1
480-133840-1	C040918-OSW7A	OSW-7A	REG	4/9/2018	71		1	1
480-133840-1	C040918-TB	QC	TB	4/9/2018	71			
480-133885-1	C041018-CLW19	CLW-19	REG	4/10/2018	71		1	1
480-133885-1	C041018-CLW19B	CLW-19B	REG	4/10/2018	71		1	1
480-133885-1	C041018-CLW19B DUP	CLW-19B	FD	4/10/2018	71		1	1
480-133885-1	C041018-CLW20	CLW-20	REG	4/10/2018	71		1	1
480-133885-1	C041018-CLW20B	CLW-20B	REG	4/10/2018	71		1	1
480-133885-1	C041018-CLW5A	CLW-5A	REG	4/10/2018	71		1	1
480-133885-1	C041018-CLW5B	CLW-5B	REG	4/10/2018	71		1	1
480-133885-1	C041018-OSW1A	OSW-1A	REG	4/10/2018	71		1	1
480-133885-1	C041018-OSW1B	OSW-1B	REG	4/10/2018	71		1	1
480-133969-1	C041118-CIW1B	CIW-1B	REG	4/11/2018	71		1	1
480-133969-1	C041118-CLW17	CLW-17	REG	4/11/2018	71		1	1
480-133969-1	C041118-CLW17B	CLW-17B	REG	4/11/2018	71		1	1
480-133969-1	C041118-CLW22	CLW-22	REG	4/11/2018	71		1	1
480-133969-1	C041118-CLW22B	CLW-22B	REG	4/11/2018	71		1	1
480-133969-1	C041118-OSW4I	OSW-4I	REG	4/11/2018	71		1	1
480-133969-1	C041118-PP2	PP-2	REG	4/11/2018	71		1	1
480-134067-1	C041218-CLW16B	CLW-16B	REG	4/12/2018	71		1	1
480-134067-1	C041218-CLW16BDUP	CLW-16B	FD	4/12/2018	71		1	1
480-134067-1	C041218-OSW2B	OSW-2B	REG	4/12/2018	71		1	1
480-134067-1	C041218-OSW3A	OSW-3A	REG	4/12/2018	71		1	1

Prepared by: Bindu Lingaiah 05/09/2018
 Checked by: Chris Ricardi 05/09/2018

TABLE 1
SAMPLE AND ANALYTICAL SUMMARY
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

				Parameter	VOCs	Dissolved Metals	Chromium (Total)	Cr (VI)
				Method	SW8260C	SW846 6010	SW846 6010	SW846 7196A
SDG	Field Sample ID	Location ID	Type	Date				
480-134067-1	C041218-OSW3B	OSW-3B	REG	4/12/2018	71		1	1
480-134067-1	C041218-PP3	PP-3	REG	4/12/2018	71		1	1
480-134067-1	C041218-PP4A	PP-4A	REG	4/12/2018	71		1	1
480-134067-1	C041218-PP4B	PP-4B	REG	4/12/2018	71		1	1
480-134067-1	C041218-Trip Blank	QC	TB	4/12/2018	71			
480-134154-1	C041318-RB1	QC	EB	4/13/2018	71		1	1
480-134154-1	C041318-RB2	QC	EB	4/13/2018	71		1	1

EB : Equipment Blank

FD: Field Duplicate

REG: Regular Sample

TB : Trip Blank

TABLE 2
ACCURACY AND PRECISION LIMITS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

PARAMETER	QC TEST	ANALYTE	WATER	
			(%R)	RPD
Volatiles	Surrogate	All Surrogates	70 - 130	
	LCS/LCSD	All Target Compounds	70 - 130	20
	MS/MSD	All Target Compounds	70 - 130	20
	Field Duplicates	All Target Compounds	n/a	30
Inorganics	LCS/LCSD	All Target Analytes	80 - 120	20
	MS/MSD	All Target Analytes	75 - 125	20
	Lab Duplicates	All Target Analytes	n/a	20
	Field Duplicates	All Target Analytes	n/a	30

Notes:

LCS/LCSD = Laboratory Control Sample/Laboratory Control Sample

MS/MSD = Matrix spike/ Matrix Spike Duplicate

RPD = Relative percent difference

%R = Percent Recovery

QC = Quality Control

TABLE 3
VALIDATON ACTIONS SUMMARY
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID	Type	SDG	Method	Parameter	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
C041118-PP2	REG	480-133969-1	SW8260	Methylene Chloride	4.0	B	U	BL1,BL2	µg/L
C041118-PP2	REG	480-133969-1	SW8260	Acetone	200	J,*	U	BL2	µg/L
C041218-OSW3A	REG	480-134067-1	SW8260	Acetone	50	J,*	U	BL2	µg/L
C041218-OSW3B	REG	480-134067-1	SW8260	Acetone	200	J,*	U	BL2	µg/L
C041218-PP3	REG	480-134067-1	SW8260	Acetone	250	J,*	U	BL2	µg/L
C041218-PP4A	REG	480-134067-1	SW8260	Acetone	50	J,*	U	BL2	µg/L
CO40218-CSW3DUP	FD	480-133458-1	SW8260	Acetone	50	J	U	BL2	µg/L
C041218-OSW3B	REG	480-134067-1	SW8260	Methylene Chloride	4.0	J	U	BL2	µg/L
C041218-PP4A	REG	480-134067-1	SW8260	Methylene Chloride	1.0	J	U	BL2	µg/L
C040918-CLW8	REG	480-133840-1	SW7196	Chromium, hexavalent	0.49	H	J	HTA	mg/L
C040918-DMWA	REG	480-133840-1	SW7196	Chromium, hexavalent	0.010	U,H	UJ	HTA	mg/L
C040918-DMWB	REG	480-133840-1	SW7196	Chromium, hexavalent	0.010	U,H	UJ	HTA	mg/L
C040918-OSW7A	REG	480-133840-1	SW7196	Chromium, hexavalent	0.25	H	J	HTA	mg/L
C041018-CLW19B	REG	480-133885-1	SW8260	1,4-Dioxane	50	U,F1,* ,F2	UJ	MSL	µg/L
C041018-CLW19B DUP	FD	480-133885-1	SW8260	1,4-Dioxane	50	U,*	UJ	MSL	µg/L

Notes:

- BL1= Result qualified due to laboratory blank
- BL2= Result qualified due to field or equipment blank
- HTA= Analytical Holding Time exceeded
- MSL= Matrix spike recovery less than the lower limit
- U = Undetected
- J = Estimated value

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units	Method	Parameter Name	Field Sample ID	CO40218-CSW2	CO40218-CSW3	CO40218-CSW3DUP	CO40218-CSW3A
			Location	CSW-2 04/02/2018 480-133458-1	CSW-3 04/02/2018 480-133458-1	CSW-3 04/02/2018 480-133458-1	CSW-3A 04/02/2018 480-133458-1
			Sample Date				
			Sample Delivery Group				
			Filtered				
mg/L	SW7196	Chromium, hexavalent	N	0.010 U	0.014	0.017	0.018
µg/L	SW6010	Calcium, Dissolved	Y	30000	28000	29000	30000
µg/L	SW6010	Chromium, Dissolved	Y	5.0 U	14	14	20
µg/L	SW6010	Copper, Dissolved	Y	6.4 J	3.4 J	10 U	3.4 J
µg/L	SW6010	Magnesium, Dissolved	Y	2500	2400	2400	2500
µg/L	SW6010	Potassium, Dissolved	Y	3400	3200	3300	3400
µg/L	SW6010	Sodium, Dissolved	Y	37000	34000	35000	56000
µg/L	SW8260	1,1,1,2-Tetrachloroethane	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1,1-Trichloroethane	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1,2,2-Tetrachloroethane	N	0.50 U	0.50 U	0.50 U	0.50 U
µg/L	SW8260	1,1,2-Trichloroethane	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloroethane	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloroethene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloropropene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2,3-Trichlorobenzene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2,3-Trichloropropane	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2,4-Trichlorobenzene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2,4-Trimethylbenzene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2-Dibromo-3-Chloropropane	N	5.0 U	5.0 U	5.0 U	5.0 U
µg/L	SW8260	1,2-Dichlorobenzene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2-Dichloroethane	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2-Dichloropropane	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,3,5-Trimethylbenzene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,3-Dichlorobenzene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,3-Dichloropropane	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,4-Dichlorobenzene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,4-Dioxane	N	50 U	50 U	50 U	50 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units	Method	Parameter Name	Field Sample ID	CO40218-CSW2	CO40218-CSW3	CO40218-CSW3DUP	CO40218-CSW3A
			Location	CSW-2 04/02/2018 480-133458-1	CSW-3 04/02/2018 480-133458-1	CSW-3 04/02/2018 480-133458-1	CSW-3A 04/02/2018 480-133458-1
			Sample Date				
			Sample Delivery Group				
			Filtered				
µg/L	SW8260	2,2-Dichloropropane	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	2-Butanone (MEK)	N	10 U	10 U	10 U	10 U
µg/L	SW8260	2-Chlorotoluene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	2-Hexanone	N	10 U	10 U	10 U	10 U
µg/L	SW8260	4-Chlorotoluene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	4-Isopropyltoluene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	4-Methyl-2-pentanone (MIBK)	N	10 U	10 U	10 U	10 U
µg/L	SW8260	Acetone	N	50 U	50 U	50 U	50 U
µg/L	SW8260	Benzene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Bromobenzene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Bromoform	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Bromomethane	N	2.0 U	2.0 U	2.0 U	2.0 U
µg/L	SW8260	Carbon disulfide	N	10 U	10 U	10 U	10 U
µg/L	SW8260	Carbon tetrachloride	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Chlorobenzene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Chlorobromomethane	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Chlorodibromomethane	N	0.50 U	0.50 U	0.50 U	0.50 U
µg/L	SW8260	Chloroethane	N	2.0 U	2.0 U	2.0 U	2.0 U
µg/L	SW8260	Chloroform	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Chloromethane	N	2.0 U	2.0 U	2.0 U	2.0 U
µg/L	SW8260	cis-1,2-Dichloroethene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	cis-1,3-Dichloropropene	N	0.40 U	0.40 U	0.40 U	0.40 U
µg/L	SW8260	Dibromomethane	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Dichlorobromomethane	N	0.50 U	0.50 U	0.50 U	0.50 U
µg/L	SW8260	Dichlorodifluoromethane	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Ethyl ether	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Ethylbenzene	N	1.0 U	1.0 U	1.0 U	1.0 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units	Method	Parameter Name	Field Sample ID	CO40218-CSW2	CO40218-CSW3	CO40218-CSW3DUP	CO40218-CSW3A
			Location	CSW-2 04/02/2018 480-133458-1	CSW-3 04/02/2018 480-133458-1	CSW-3 04/02/2018 480-133458-1	CSW-3A 04/02/2018 480-133458-1
			Sample Date	Sample Delivery Group	Filtered		
µg/L	SW8260	Ethylene Dibromide	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Hexachlorobutadiene	N	0.40 U	0.40 U	0.40 U	0.40 U
µg/L	SW8260	Isopropyl ether	N	10 U	10 U	10 U	10 U
µg/L	SW8260	Isopropylbenzene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	m-Xylene & p-Xylene	N	2.0 U	2.0 U	2.0 U	2.0 U
µg/L	SW8260	Methyl tert-butyl ether	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Methylene Chloride	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	n-Butylbenzene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	N-Propylbenzene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Naphthalene	N	5.0 U	5.0 U	5.0 U	5.0 U
µg/L	SW8260	o-Xylene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	sec-Butylbenzene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Styrene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Tert-amyl methyl ether	N	5.0 U	5.0 U	5.0 U	5.0 U
µg/L	SW8260	Tert-butyl ethyl ether	N	5.0 U	5.0 U	5.0 U	5.0 U
µg/L	SW8260	tert-Butylbenzene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Tetrachloroethene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Tetrahydrofuran	N	10 U	10 U	10 U	10 U
µg/L	SW8260	Toluene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	trans-1,2-Dichloroethene	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	trans-1,3-Dichloropropene	N	0.40 U	0.40 U	0.40 U	0.40 U
µg/L	SW8260	Trichloroethene	N	1.0 U	0.74 J	1.0	0.81 J
µg/L	SW8260	Trichlorofluoromethane	N	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Vinyl chloride	N	1.0 U	1.0 U	1.0 U	1.0 U

Notes:

U = undetected

J = estimated value

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units	Method	Parameter Name	Field Sample ID	CO40218-CSW4	CO40218-CSW5
			Location	CSW-4	CSW-5
Sample Date			480-133458-1	480-133458-1	
Sample Delivery Group					
Filtered					
mg/L	SW7196	Chromium, hexavalent	N	0.027	0.014
µg/L	SW6010	Calcium, Dissolved	Y	29000	29000
µg/L	SW6010	Chromium, Dissolved	Y	21	17
µg/L	SW6010	Copper, Dissolved	Y	3.6 J	6.5 J
µg/L	SW6010	Magnesium, Dissolved	Y	2500	2400
µg/L	SW6010	Potassium, Dissolved	Y	3300	3300
µg/L	SW6010	Sodium, Dissolved	Y	79000	44000
µg/L	SW8260	1,1,1,2-Tetrachloroethane	N	1.0 U	1.0 U
µg/L	SW8260	1,1,1-Trichloroethane	N	1.0 U	1.0 U
µg/L	SW8260	1,1,2,2-Tetrachloroethane	N	0.50 U	0.50 U
µg/L	SW8260	1,1,2-Trichloroethane	N	1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloroethane	N	1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloroethene	N	1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloropropene	N	1.0 U	1.0 U
µg/L	SW8260	1,2,3-Trichlorobenzene	N	1.0 U	1.0 U
µg/L	SW8260	1,2,3-Trichloropropane	N	1.0 U	1.0 U
µg/L	SW8260	1,2,4-Trichlorobenzene	N	1.0 U	1.0 U
µg/L	SW8260	1,2,4-Trimethylbenzene	N	1.0 U	1.0 U
µg/L	SW8260	1,2-Dibromo-3-Chloropropane	N	5.0 U	5.0 U
µg/L	SW8260	1,2-Dichlorobenzene	N	1.0 U	1.0 U
µg/L	SW8260	1,2-Dichloroethane	N	1.0 U	1.0 U
µg/L	SW8260	1,2-Dichloropropane	N	1.0 U	1.0 U
µg/L	SW8260	1,3,5-Trimethylbenzene	N	1.0 U	1.0 U
µg/L	SW8260	1,3-Dichlorobenzene	N	1.0 U	1.0 U
µg/L	SW8260	1,3-Dichloropropane	N	1.0 U	1.0 U
µg/L	SW8260	1,4-Dichlorobenzene	N	1.0 U	1.0 U
µg/L	SW8260	1,4-Dioxane	N	50 U	50 U

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DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units	Method	Parameter Name	Field Sample ID	CO40218-CSW4	CO40218-CSW5
			Location	CSW-4	CSW-5
			Sample Date	04/02/2018	04/02/2018
Units	Method	Parameter Name	Sample Delivery Group	480-133458-1	480-133458-1
			Filtered		
µg/L	SW8260	2,2-Dichloropropane	N	1.0 U	1.0 U
µg/L	SW8260	2-Butanone (MEK)	N	10 U	10 U
µg/L	SW8260	2-Chlorotoluene	N	1.0 U	1.0 U
µg/L	SW8260	2-Hexanone	N	10 U	10 U
µg/L	SW8260	4-Chlorotoluene	N	1.0 U	1.0 U
µg/L	SW8260	4-Isopropyltoluene	N	1.0 U	1.0 U
µg/L	SW8260	4-Methyl-2-pentanone (MIBK)	N	10 U	10 U
µg/L	SW8260	Acetone	N	50 U	50 U
µg/L	SW8260	Benzene	N	1.0 U	1.0 U
µg/L	SW8260	Bromobenzene	N	1.0 U	1.0 U
µg/L	SW8260	Bromoform	N	1.0 U	1.0 U
µg/L	SW8260	Bromomethane	N	2.0 U	2.0 U
µg/L	SW8260	Carbon disulfide	N	10 U	10 U
µg/L	SW8260	Carbon tetrachloride	N	1.0 U	1.0 U
µg/L	SW8260	Chlorobenzene	N	1.0 U	1.0 U
µg/L	SW8260	Chlorobromomethane	N	1.0 U	1.0 U
µg/L	SW8260	Chlorodibromomethane	N	0.50 U	0.50 U
µg/L	SW8260	Chloroethane	N	2.0 U	2.0 U
µg/L	SW8260	Chloroform	N	1.0 U	1.0 U
µg/L	SW8260	Chloromethane	N	2.0 U	2.0 U
µg/L	SW8260	cis-1,2-Dichloroethene	N	1.0 U	1.0 U
µg/L	SW8260	cis-1,3-Dichloropropene	N	0.40 U	0.40 U
µg/L	SW8260	Dibromomethane	N	1.0 U	1.0 U
µg/L	SW8260	Dichlorobromomethane	N	0.50 U	0.50 U
µg/L	SW8260	Dichlorodifluoromethane	N	1.0 U	1.0 U
µg/L	SW8260	Ethyl ether	N	1.0 U	1.0 U
µg/L	SW8260	Ethylbenzene	N	1.0 U	1.0 U

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DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units	Method	Parameter Name	Field Sample ID	CO40218-CSW4	CO40218-CSW5
			Location	CSW-4	CSW-5
		Sample Date	04/02/2018	04/02/2018	
		Sample Delivery Group	480-133458-1	480-133458-1	
Units	Method	Parameter Name	Filtered		
µg/L	SW8260	Ethylene Dibromide	N	1.0 U	1.0 U
µg/L	SW8260	Hexachlorobutadiene	N	0.40 U	0.40 U
µg/L	SW8260	Isopropyl ether	N	10 U	10 U
µg/L	SW8260	Isopropylbenzene	N	1.0 U	1.0 U
µg/L	SW8260	m-Xylene & p-Xylene	N	2.0 U	2.0 U
µg/L	SW8260	Methyl tert-butyl ether	N	1.0 U	1.0 U
µg/L	SW8260	Methylene Chloride	N	1.0 U	1.0 U
µg/L	SW8260	n-Butylbenzene	N	1.0 U	1.0 U
µg/L	SW8260	N-Propylbenzene	N	1.0 U	1.0 U
µg/L	SW8260	Naphthalene	N	5.0 U	5.0 U
µg/L	SW8260	o-Xylene	N	1.0 U	1.0 U
µg/L	SW8260	sec-Butylbenzene	N	1.0 U	1.0 U
µg/L	SW8260	Styrene	N	1.0 U	1.0 U
µg/L	SW8260	Tert-amyl methyl ether	N	5.0 U	5.0 U
µg/L	SW8260	Tert-butyl ethyl ether	N	5.0 U	5.0 U
µg/L	SW8260	tert-Butylbenzene	N	1.0 U	1.0 U
µg/L	SW8260	Tetrachloroethene	N	1.0 U	1.0 U
µg/L	SW8260	Tetrahydrofuran	N	10 U	10 U
µg/L	SW8260	Toluene	N	1.0 U	1.0 U
µg/L	SW8260	trans-1,2-Dichloroethene	N	1.0 U	1.0 U
µg/L	SW8260	trans-1,3-Dichloropropene	N	0.40 U	0.40 U
µg/L	SW8260	Trichloroethene	N	0.74 J	1.0 U
µg/L	SW8260	Trichlorofluoromethane	N	1.0 U	1.0 U
µg/L	SW8260	Vinyl chloride	N	1.0 U	1.0 U

Notes:

U = undetected

J = estimated value

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units	Method	Field Sample ID Location Sample Date Sample Delivery Group	C040918-CLW8 CLW-8 04/09/2018 480-133840-1	C040918-DMWA DMW-A 04/09/2018 480-133840-1	C040918-DMWB DMW-B 04/09/2018 480-133840-1	C040918-OSW7A OSW-7A 04/09/2018 480-133840-1	C040918-TB QC 04/09/2018 480-133840-1
mg/L	SW7196	Chromium, hexavalent	0.49 J	0.010 UJ	0.010 UJ	0.25 J	
µg/L	SW6010	Chromium	520	5.0 U	1.2 J	240	
µg/L	SW8260	1,1,1,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1,1-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1,2,2-Tetrachloroethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
µg/L	SW8260	1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloroethene	0.43 J	1.2	1.3	1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2,3-Trichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2,3-Trichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2,4-Trichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2,4-Trimethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2-Dibromo-3-Chloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
µg/L	SW8260	1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,3,5-Trimethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,3-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,3-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,4-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,4-Dioxane	50 U	50 U	50 U	50 U	50 U
µg/L	SW8260	2,2-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	2-Butanone (MEK)	10 U	10 U	10 U	10 U	10 U
µg/L	SW8260	2-Chlorotoluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	2-Hexanone	10 U	10 U	10 U	10 U	10 U
µg/L	SW8260	4-Chlorotoluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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FINAL RESULTS
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HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units	Method	Field Sample ID	C040918-CLW8	C040918-DMWA	C040918-DMWB	C040918-OSW7A	C040918-TB
		Location CLW-8	04/09/2018	DMW-A 04/09/2018	DMW-B 04/09/2018	OSW-7A 04/09/2018	QC 04/09/2018
Sample Date	Sample Delivery Group	480-133840-1	480-133840-1	480-133840-1	480-133840-1	480-133840-1	480-133840-1
µg/L	SW8260	4-Isopropyltoluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	4-Methyl-2-pentanone (MIBK)	10 U	10 U	10 U	10 U	10 U
µg/L	SW8260	Acetone	50 U	50 U	50 U	50 U	50 U
µg/L	SW8260	Benzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Bromobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Bromoform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Bromomethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
µg/L	SW8260	Carbon disulfide	10 U	10 U	10 U	10 U	10 U
µg/L	SW8260	Carbon tetrachloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Chlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Chlorobromomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Chlorodibromomethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
µg/L	SW8260	Chloroethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
µg/L	SW8260	Chloroform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Chloromethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
µg/L	SW8260	cis-1,2-Dichloroethene	9.2	48	170	4.0	1.0 U
µg/L	SW8260	cis-1,3-Dichloropropene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
µg/L	SW8260	Dibromomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Dichlorobromomethane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
µg/L	SW8260	Dichlorodifluoromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Ethyl ether	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Ethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Ethylene Dibromide	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Hexachlorobutadiene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
µg/L	SW8260	Isopropyl ether	10 U	10 U	10 U	10 U	10 U
µg/L	SW8260	Isopropylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	m-Xylene & p-Xylene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

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HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

		Field Sample ID Location Sample Date Sample Delivery Group	C040918-CLW8 CLW-8 04/09/2018 480-133840-1	C040918-DMWA DMW-A 04/09/2018 480-133840-1	C040918-DMWB DMW-B 04/09/2018 480-133840-1	C040918-OSW7A OSW-7A 04/09/2018 480-133840-1	C040918-TB QC 04/09/2018 480-133840-1
Units	Method	Parameter Name					
µg/L	SW8260	Methyl tert-butyl ether	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Methylene Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	n-Butylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	N-Propylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Naphthalene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
µg/L	SW8260	o-Xylene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	sec-Butylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Styrene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Tert-amyl methyl ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
µg/L	SW8260	Tert-butyl ethyl ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
µg/L	SW8260	tert-Butylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Tetrachloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Tetrahydrofuran	10 U	10 U	10 U	10 U	10 U
µg/L	SW8260	Toluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	trans-1,2-Dichloroethene	1.0 U	1.0 U	54	1.0 U	1.0 U
µg/L	SW8260	trans-1,3-Dichloropropene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
µg/L	SW8260	Trichloroethene	31	23	86	19	1.0 U
µg/L	SW8260	Trichlorofluoromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Vinyl chloride	1.0 U	4.4	14	1.0 U	1.0 U

Notes:

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APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID Location Sample Date Sample Delivery Group	C041018-CLW19 CLW-19 04/10/2018 480-133885-1	C041018-CLW19B CLW-19B 04/10/2018 480-133885-1	C041018-CLW19B DUP CLW-19B 04/10/2018 480-133885-1	C041018-CLW20 CLW-20 04/10/2018 480-133885-1
Units Method	Parameter Name			
mg/L SW7196	Chromium, hexavalent	0.010 U	0.010 U	0.010 U
µg/L SW6010	Chromium	14	12	2.4 J
µg/L SW8260	1,1,1,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U
µg/L SW8260	1,1,1-Trichloroethane	1.0 U	1.0 U	1.0 U
µg/L SW8260	1,1,2,2-Tetrachloroethane	0.50 U	0.50 U	0.50 U
µg/L SW8260	1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U
µg/L SW8260	1,1-Dichloroethane	1.0 U	1.0 U	1.0 U
µg/L SW8260	1,1-Dichloroethene	1.0 U	1.0 U	1.0 U
µg/L SW8260	1,1-Dichloropropene	1.0 U	1.0 U	1.0 U
µg/L SW8260	1,2,3-Trichlorobenzene	1.0 U	1.0 U	1.0 U
µg/L SW8260	1,2,3-Trichloropropane	1.0 U	1.0 U	1.0 U
µg/L SW8260	1,2,4-Trichlorobenzene	1.0 U	1.0 U	1.0 U
µg/L SW8260	1,2,4-Trimethylbenzene	1.0 U	1.0 U	1.0 U
µg/L SW8260	1,2-Dibromo-3-Chloropropane	5.0 U	5.0 U	5.0 U
µg/L SW8260	1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U
µg/L SW8260	1,2-Dichloroethane	1.0 U	1.0 U	1.0 U
µg/L SW8260	1,2-Dichloropropane	1.0 U	1.0 U	1.0 U
µg/L SW8260	1,3,5-Trimethylbenzene	1.0 U	1.0 U	1.0 U
µg/L SW8260	1,3-Dichlorobenzene	1.0 U	1.0 U	1.0 U
µg/L SW8260	1,3-Dichloropropane	1.0 U	1.0 U	1.0 U
µg/L SW8260	1,4-Dichlorobenzene	1.0 U	1.0 U	1.0 U
µg/L SW8260	1,4-Dioxane	50 U	50 UJ	50 UJ
µg/L SW8260	2,2-Dichloropropane	1.0 U	1.0 U	1.0 U
µg/L SW8260	2-Butanone (MEK)	10 U	10 U	10 U
µg/L SW8260	2-Chlorotoluene	1.0 U	1.0 U	1.0 U
µg/L SW8260	2-Hexanone	10 U	10 U	10 U
µg/L SW8260	4-Chlorotoluene	1.0 U	1.0 U	1.0 U

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HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID Location Sample Date Sample Delivery Group	C041018-CLW19 CLW-19 04/10/2018 480-133885-1	C041018-CLW19B CLW-19B 04/10/2018 480-133885-1	C041018-CLW19B DUP CLW-19B 04/10/2018 480-133885-1	C041018-CLW20 CLW-20 04/10/2018 480-133885-1
Units Method Parameter Name				
µg/L SW8260 4-Isopropyltoluene	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 4-Methyl-2-pentanone (MIBK)	10 U	10 U	10 U	10 U
µg/L SW8260 Acetone	50 U	50 U	50 U	50 U
µg/L SW8260 Benzene	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Bromobenzene	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Bromoform	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Bromomethane	2.0 U	2.0 U	2.0 U	2.0 U
µg/L SW8260 Carbon disulfide	10 U	10 U	10 U	10 U
µg/L SW8260 Carbon tetrachloride	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Chlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Chlorobromomethane	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Chlorodibromomethane	0.50 U	0.50 U	0.50 U	0.50 U
µg/L SW8260 Chloroethane	2.0 U	2.0 U	2.0 U	2.0 U
µg/L SW8260 Chloroform	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Chloromethane	2.0 U	2.0 U	2.0 U	2.0 U
µg/L SW8260 cis-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 cis-1,3-Dichloropropene	0.40 U	0.40 U	0.40 U	0.40 U
µg/L SW8260 Dibromomethane	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Dichlorobromomethane	0.50 U	0.50 U	0.50 U	0.50 U
µg/L SW8260 Dichlorodifluoromethane	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Ethyl ether	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Ethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Ethylene Dibromide	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Hexachlorobutadiene	0.40 U	0.40 U	0.40 U	0.40 U
µg/L SW8260 Isopropyl ether	10 U	10 U	10 U	10 U
µg/L SW8260 Isopropylbenzene	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 m-Xylene & p-Xylene	2.0 U	2.0 U	2.0 U	2.0 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID Location Sample Date Sample Delivery Group	C041018-CLW19 CLW-19 04/10/2018 480-133885-1	C041018-CLW19B CLW-19B 04/10/2018 480-133885-1	C041018-CLW19B DUP CLW-19B 04/10/2018 480-133885-1	C041018-CLW20 CLW-20 04/10/2018 480-133885-1
Units Method Parameter Name				
µg/L SW8260 Methyl tert-butyl ether	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Methylene Chloride	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 n-Butylbenzene	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 N-Propylbenzene	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Naphthalene	5.0 U	5.0 U	5.0 U	5.0 U
µg/L SW8260 o-Xylene	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 sec-Butylbenzene	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Styrene	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Tert-amyl methyl ether	5.0 U	5.0 U	5.0 U	5.0 U
µg/L SW8260 Tert-butyl ethyl ether	5.0 U	5.0 U	5.0 U	5.0 U
µg/L SW8260 tert-Butylbenzene	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Tetrachloroethene	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Tetrahydrofuran	10 U	10 U	10 U	10 U
µg/L SW8260 Toluene	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 trans-1,3-Dichloropropene	0.40 U	0.40 U	0.40 U	0.40 U
µg/L SW8260 Trichloroethene	0.75 J	1.1	0.96 J	1.9
µg/L SW8260 Trichlorofluoromethane	1.0 U	1.0 U	1.0 U	1.0 U
µg/L SW8260 Vinyl chloride	1.0 U	1.0 U	1.0 U	1.0 U

Notes:

U = undetected

J = estimated value

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID	C041018-CLW20B	Location	CLW-20B	Sample Date	04/10/2018	Sample Delivery Group	480-133885-1	C041018-CLW5A	CLW-5A	C041018-CLW5B	CLW-5B	C041018-OSW1A	OSW-1A
Units Method	Parameter Name												
mg/L	SW7196	Chromium, hexavalent			0.010 U		0.091		0.010 U		0.010 U		0.13
µg/L	SW6010	Chromium			5.0 U		96		30		5.0 U		150
µg/L	SW8260	1,1,1,2-Tetrachloroethane			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	1,1,1-Trichloroethane			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	1,1,2,2-Tetrachloroethane			0.50 U		0.50 U		2.5 U		2.5 U		0.50 U
µg/L	SW8260	1,1,2-Trichloroethane			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	1,1-Dichloroethane			0.68 J		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	1,1-Dichloroethene			1.0 U		1.0 U		3.9 J		3.9 J		1.0 U
µg/L	SW8260	1,1-Dichloropropene			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	1,2,3-Trichlorobenzene			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	1,2,3-Trichloropropane			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	1,2,4-Trichlorobenzene			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	1,2,4-Trimethylbenzene			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	1,2-Dibromo-3-Chloropropane			5.0 U		5.0 U		25 U		25 U		5.0 U
µg/L	SW8260	1,2-Dichlorobenzene			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	1,2-Dichloroethane			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	1,2-Dichloropropane			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	1,3,5-Trimethylbenzene			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	1,3-Dichlorobenzene			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	1,3-Dichloropropane			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	1,4-Dichlorobenzene			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	1,4-Dioxane			50 U		50 U		250 U		250 U		50 U
µg/L	SW8260	2,2-Dichloropropane			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	2-Butanone (MEK)			10 U		10 U		50 U		50 U		10 U
µg/L	SW8260	2-Chlorotoluene			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U
µg/L	SW8260	2-Hexanone			10 U		10 U		50 U		50 U		10 U
µg/L	SW8260	4-Chlorotoluene			1.0 U		1.0 U		5.0 U		5.0 U		1.0 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units Method	Field Sample ID Location Sample Date Sample Delivery Group	C041018-CLW20B	C041018-CLW5A	C041018-CLW5B	C041018-OSW1A
		CLW-20B 04/10/2018 480-133885-1	CLW-5A 04/10/2018 480-133885-1	CLW-5B 04/10/2018 480-133885-1	OSW-1A 04/10/2018 480-133885-1
µg/L	SW8260 4-Isopropyltoluene	1.0 U	1.0 U	5.0 U	1.0 U
µg/L	SW8260 4-Methyl-2-pentanone (MIBK)	10 U	10 U	50 U	10 U
µg/L	SW8260 Acetone	50 U	50 U	250 U	50 U
µg/L	SW8260 Benzene	1.0 U	1.0 U	5.0 U	1.0 U
µg/L	SW8260 Bromobenzene	1.0 U	1.0 U	5.0 U	1.0 U
µg/L	SW8260 Bromoform	1.0 U	1.0 U	5.0 U	1.0 U
µg/L	SW8260 Bromomethane	2.0 U	2.0 U	10 U	2.0 U
µg/L	SW8260 Carbon disulfide	10 U	10 U	50 U	10 U
µg/L	SW8260 Carbon tetrachloride	1.0 U	1.0 U	5.0 U	1.0 U
µg/L	SW8260 Chlorobenzene	1.0 U	1.0 U	5.0 U	1.0 U
µg/L	SW8260 Chlorobromomethane	1.0 U	1.0 U	5.0 U	1.0 U
µg/L	SW8260 Chlorodibromomethane	0.50 U	0.50 U	2.5 U	0.50 U
µg/L	SW8260 Chloroethane	2.0 U	2.0 U	9.3 J	2.0 U
µg/L	SW8260 Chloroform	1.0 U	1.0 U	5.0 U	1.0 U
µg/L	SW8260 Chloromethane	2.0 U	2.0 U	10 U	2.0 U
µg/L	SW8260 cis-1,2-Dichloroethene	1.0 U	1.0 U	170	1.0 U
µg/L	SW8260 cis-1,3-Dichloropropene	0.40 U	0.40 U	2.0 U	0.40 U
µg/L	SW8260 Dibromomethane	1.0 U	1.0 U	5.0 U	1.0 U
µg/L	SW8260 Dichlorobromomethane	0.50 U	0.50 U	2.5 U	0.50 U
µg/L	SW8260 Dichlorodifluoromethane	1.0 U	1.0 U	5.0 U	1.0 U
µg/L	SW8260 Ethyl ether	1.0 U	1.0 U	5.0 U	1.0 U
µg/L	SW8260 Ethylbenzene	1.0 U	1.0 U	5.0 U	1.0 U
µg/L	SW8260 Ethylene Dibromide	1.0 U	1.0 U	5.0 U	1.0 U
µg/L	SW8260 Hexachlorobutadiene	0.40 U	0.40 U	2.0 U	0.40 U
µg/L	SW8260 Isopropyl ether	10 U	10 U	50 U	10 U
µg/L	SW8260 Isopropylbenzene	1.0 U	1.0 U	5.0 U	1.0 U
µg/L	SW8260 m-Xylene & p-Xylene	2.0 U	2.0 U	10 U	2.0 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID	C041018-CLW20B	Location	CLW-20B	Sample Date	04/10/2018	Sample Delivery Group	480-133885-1	C041018-CLW5A	CLW-5A	C041018-CLW5B	CLW-5B	C041018-OSW1A	OSW-1A
Units Method	Parameter Name												
µg/L	SW8260 Methyl tert-butyl ether							0.18 J	1.0 U	5.0 U	5.0 U	1.0 U	
µg/L	SW8260 Methylene Chloride							1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	
µg/L	SW8260 n-Butylbenzene							1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	
µg/L	SW8260 N-Propylbenzene							1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	
µg/L	SW8260 Naphthalene							5.0 U	5.0 U	25 U	25 U	5.0 U	
µg/L	SW8260 o-Xylene							1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	
µg/L	SW8260 sec-Butylbenzene							1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	
µg/L	SW8260 Styrene							1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	
µg/L	SW8260 Tert-amyl methyl ether							5.0 U	5.0 U	25 U	25 U	5.0 U	
µg/L	SW8260 Tert-butyl ethyl ether							5.0 U	5.0 U	25 U	25 U	5.0 U	
µg/L	SW8260 tert-Butylbenzene							1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	
µg/L	SW8260 Tetrachloroethene							1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	
µg/L	SW8260 Tetrahydrofuran							10 U	10 U	50 U	50 U	10 U	
µg/L	SW8260 Toluene							1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	
µg/L	SW8260 trans-1,2-Dichloroethene							1.0 U	1.0 U	10	10	1.0 U	
µg/L	SW8260 trans-1,3-Dichloropropene							0.40 U	0.40 U	2.0 U	2.0 U	0.40 U	
µg/L	SW8260 Trichloroethene							1.0 U	1.5	250	250	3.0	
µg/L	SW8260 Trichlorofluoromethane							1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	
µg/L	SW8260 Vinyl chloride							1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	

Notes:

U = undetected

J = estimated value

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID	C041018-OSW1B OSW-1B 04/10/2018 480-133885-1		
Location			
Sample Date			
Sample Delivery Group			
Units Method	Parameter Name		
mg/L SW7196	Chromium, hexavalent	0.010	U
µg/L SW6010	Chromium	1.4	J
µg/L SW8260	1,1,1,2-Tetrachloroethane	50	U
µg/L SW8260	1,1,1-Trichloroethane	50	U
µg/L SW8260	1,1,2,2-Tetrachloroethane	25	U
µg/L SW8260	1,1,2-Trichloroethane	50	U
µg/L SW8260	1,1-Dichloroethane	50	U
µg/L SW8260	1,1-Dichloroethene	50	U
µg/L SW8260	1,1-Dichloropropene	50	U
µg/L SW8260	1,2,3-Trichlorobenzene	50	U
µg/L SW8260	1,2,3-Trichloropropane	50	U
µg/L SW8260	1,2,4-Trichlorobenzene	50	U
µg/L SW8260	1,2,4-Trimethylbenzene	50	U
µg/L SW8260	1,2-Dibromo-3-Chloropropane	250	U
µg/L SW8260	1,2-Dichlorobenzene	50	U
µg/L SW8260	1,2-Dichloroethane	50	U
µg/L SW8260	1,2-Dichloropropane	50	U
µg/L SW8260	1,3,5-Trimethylbenzene	50	U
µg/L SW8260	1,3-Dichlorobenzene	50	U
µg/L SW8260	1,3-Dichloropropane	50	U
µg/L SW8260	1,4-Dichlorobenzene	50	U
µg/L SW8260	1,4-Dioxane	2500	U
µg/L SW8260	2,2-Dichloropropane	50	U
µg/L SW8260	2-Butanone (MEK)	500	U
µg/L SW8260	2-Chlorotoluene	50	U
µg/L SW8260	2-Hexanone	500	U
µg/L SW8260	4-Chlorotoluene	50	U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID	C041018-OSW1B OSW-1B 04/10/2018 480-133885-1		
Location			
Sample Date			
Sample Delivery Group			
Units Method	Parameter Name		
µg/L SW8260	4-Isopropyltoluene	50	U
µg/L SW8260	4-Methyl-2-pentanone (MIBK)	500	U
µg/L SW8260	Acetone	2500	U
µg/L SW8260	Benzene	50	U
µg/L SW8260	Bromobenzene	50	U
µg/L SW8260	Bromoform	50	U
µg/L SW8260	Bromomethane	100	U
µg/L SW8260	Carbon disulfide	500	U
µg/L SW8260	Carbon tetrachloride	50	U
µg/L SW8260	Chlorobenzene	50	U
µg/L SW8260	Chlorobromomethane	50	U
µg/L SW8260	Chlorodibromomethane	25	U
µg/L SW8260	Chloroethane	100	U
µg/L SW8260	Chloroform	50	U
µg/L SW8260	Chloromethane	100	U
µg/L SW8260	cis-1,2-Dichloroethene	280	
µg/L SW8260	cis-1,3-Dichloropropene	20	U
µg/L SW8260	Dibromomethane	50	U
µg/L SW8260	Dichlorobromomethane	25	U
µg/L SW8260	Dichlorodifluoromethane	50	U
µg/L SW8260	Ethyl ether	50	U
µg/L SW8260	Ethylbenzene	50	U
µg/L SW8260	Ethylene Dibromide	50	U
µg/L SW8260	Hexachlorobutadiene	20	U
µg/L SW8260	Isopropyl ether	500	U
µg/L SW8260	Isopropylbenzene	50	U
µg/L SW8260	m-Xylene & p-Xylene	100	U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID	C041018-OSW1B OSW-1B 04/10/2018 480-133885-1		
Location			
Sample Date			
Sample Delivery Group			
Units Method	Parameter Name		
µg/L SW8260	Methyl tert-butyl ether		50 U
µg/L SW8260	Methylene Chloride		50 U
µg/L SW8260	n-Butylbenzene		50 U
µg/L SW8260	N-Propylbenzene		50 U
µg/L SW8260	Naphthalene		250 U
µg/L SW8260	o-Xylene		50 U
µg/L SW8260	sec-Butylbenzene		50 U
µg/L SW8260	Styrene		50 U
µg/L SW8260	Tert-amyl methyl ether		250 U
µg/L SW8260	Tert-butyl ethyl ether		250 U
µg/L SW8260	tert-Butylbenzene		50 U
µg/L SW8260	Tetrachloroethene		50 U
µg/L SW8260	Tetrahydrofuran		500 U
µg/L SW8260	Toluene		50 U
µg/L SW8260	trans-1,2-Dichloroethene		50 U
µg/L SW8260	trans-1,3-Dichloropropene		20 U
µg/L SW8260	Trichloroethene		3500
µg/L SW8260	Trichlorofluoromethane		50 U
µg/L SW8260	Vinyl chloride		50 U

Notes:

U = undetected

J = estimated value

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units	Method	Field Sample ID Location Sample Date Sample Delivery Group	C041118-CIW1B	C041118-CLW17	C041118-CLW17B	C041118-CLW22
			CIW-1B 04/11/2018 480-133969-1	CLW-17 04/11/2018 480-133969-1	CLW-17B 04/11/2018 480-133969-1	CLW-22 04/11/2018 480-133969-1
mg/L	SW7196	Chromium, hexavalent	0.010 U	0.037	0.016	0.0063 J
µg/L	SW6010	Chromium	990	41	17	11
µg/L	SW8260	1,1,1,2-Tetrachloroethane	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1,1-Trichloroethane	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1,2,2-Tetrachloroethane	10 U	0.50 U	0.50 U	0.50 U
µg/L	SW8260	1,1,2-Trichloroethane	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloroethane	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloroethene	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloropropene	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2,3-Trichlorobenzene	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2,3-Trichloropropane	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2,4-Trichlorobenzene	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2,4-Trimethylbenzene	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2-Dibromo-3-Chloropropane	100 U	5.0 U	5.0 U	5.0 U
µg/L	SW8260	1,2-Dichlorobenzene	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2-Dichloroethane	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2-Dichloropropane	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,3,5-Trimethylbenzene	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,3-Dichlorobenzene	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,3-Dichloropropane	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,4-Dichlorobenzene	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,4-Dioxane	1000 U	50 U	50 U	50 U
µg/L	SW8260	2,2-Dichloropropane	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	2-Butanone (MEK)	200 U	10 U	10 U	10 U
µg/L	SW8260	2-Chlorotoluene	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	2-Hexanone	200 U	10 U	10 U	10 U
µg/L	SW8260	4-Chlorotoluene	20 U	1.0 U	1.0 U	1.0 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units	Method	Field Sample ID Location Sample Date Sample Delivery Group	C041118-CIW1B	C041118-CLW17	C041118-CLW17B	C041118-CLW22
			CIW-1B 04/11/2018 480-133969-1	CLW-17 04/11/2018 480-133969-1	CLW-17B 04/11/2018 480-133969-1	CLW-22 04/11/2018 480-133969-1
µg/L	SW8260	4-Isopropyltoluene	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	4-Methyl-2-pentanone (MIBK)	200 U	10 U	10 U	10 U
µg/L	SW8260	Acetone	1000 U	50 U	50 U	50 U
µg/L	SW8260	Benzene	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Bromobenzene	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Bromoform	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Bromomethane	40 U	2.0 U	2.0 U	2.0 U
µg/L	SW8260	Carbon disulfide	200 U	10 U	10 U	10 U
µg/L	SW8260	Carbon tetrachloride	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Chlorobenzene	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Chlorobromomethane	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Chlorodibromomethane	10 U	0.50 U	0.50 U	0.50 U
µg/L	SW8260	Chloroethane	40 U	2.0 U	2.0 U	2.0 U
µg/L	SW8260	Chloroform	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Chloromethane	40 U	2.0 U	2.0 U	2.0 U
µg/L	SW8260	cis-1,2-Dichloroethene	260	3.6	18	1.5
µg/L	SW8260	cis-1,3-Dichloropropene	8.0 U	0.40 U	0.40 U	0.40 U
µg/L	SW8260	Dibromomethane	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Dichlorobromomethane	10 U	0.50 U	0.50 U	0.50 U
µg/L	SW8260	Dichlorodifluoromethane	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Ethyl ether	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Ethylbenzene	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Ethylene Dibromide	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Hexachlorobutadiene	8.0 U	0.40 U	0.40 U	0.40 U
µg/L	SW8260	Isopropyl ether	200 U	10 U	10 U	10 U
µg/L	SW8260	Isopropylbenzene	20 U	1.0 U	1.0 U	1.0 U
µg/L	SW8260	m-Xylene & p-Xylene	40 U	2.0 U	2.0 U	2.0 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units	Method	Field Sample ID	C041118-CIW1B	C041118-CLW17	C041118-CLW17B	C041118-CLW22
		Location	CIW-1B	CLW-17	CLW-17B	CLW-22
		Sample Date	04/11/2018	04/11/2018	04/11/2018	04/11/2018
		Sample Delivery Group	480-133969-1	480-133969-1	480-133969-1	480-133969-1
Parameter Name						
µg/L SW8260	Methyl tert-butyl ether		20 U	1.0 U	1.0 U	1.0 U
µg/L SW8260	Methylene Chloride		20 U	1.0 U	1.0 U	1.0 U
µg/L SW8260	n-Butylbenzene		20 U	1.0 U	1.0 U	1.0 U
µg/L SW8260	N-Propylbenzene		20 U	1.0 U	1.0 U	1.0 U
µg/L SW8260	Naphthalene		100 U	5.0 U	5.0 U	5.0 U
µg/L SW8260	o-Xylene		20 U	1.0 U	1.0 U	1.0 U
µg/L SW8260	sec-Butylbenzene		20 U	1.0 U	1.0 U	1.0 U
µg/L SW8260	Styrene		20 U	1.0 U	1.0 U	1.0 U
µg/L SW8260	Tert-amyl methyl ether		100 U	5.0 U	5.0 U	5.0 U
µg/L SW8260	Tert-butyl ethyl ether		100 U	5.0 U	5.0 U	5.0 U
µg/L SW8260	tert-Butylbenzene		20 U	1.0 U	1.0 U	1.0 U
µg/L SW8260	Tetrachloroethene		20 U	1.0 U	1.0 U	1.0 U
µg/L SW8260	Tetrahydrofuran		200 U	10 U	10 U	10 U
µg/L SW8260	Toluene		20 U	1.0 U	1.0 U	1.0 U
µg/L SW8260	trans-1,2-Dichloroethene		37	1.0 U	4.2	1.0 U
µg/L SW8260	trans-1,3-Dichloropropene		8.0 U	0.40 U	0.40 U	0.40 U
µg/L SW8260	Trichloroethene		1000	11	75	7.9
µg/L SW8260	Trichlorofluoromethane		20 U	1.0 U	1.0 U	1.0 U
µg/L SW8260	Vinyl chloride		92	1.0 U	1.0 U	1.0 U

Notes:

U = undetected

J = estimated value

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units	Method	Parameter Name	Field Sample ID	C041118-CLW22B	C041118-OSW4I	C041118-PP2
			Location	CLW-22B	OSW-4I	PP-2
		Sample Date	04/11/2018	04/11/2018	04/11/2018	
		Sample Delivery Group	480-133969-1	480-133969-1	480-133969-1	
mg/L	SW7196	Chromium, hexavalent		0.0063 J	0.077	0.077
µg/L	SW6010	Chromium		14	100	170
µg/L	SW8260	1,1,1,2-Tetrachloroethane		1.0 U	8.0 U	4.0 U
µg/L	SW8260	1,1,1-Trichloroethane		1.0 U	8.0 U	4.0 U
µg/L	SW8260	1,1,2,2-Tetrachloroethane		0.50 U	4.0 U	2.0 U
µg/L	SW8260	1,1,2-Trichloroethane		1.0 U	8.0 U	4.0 U
µg/L	SW8260	1,1-Dichloroethane		1.0 U	8.0 U	4.0 U
µg/L	SW8260	1,1-Dichloroethene		1.0 U	3.0 J	1.3 J
µg/L	SW8260	1,1-Dichloropropene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	1,2,3-Trichlorobenzene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	1,2,3-Trichloropropane		1.0 U	8.0 U	4.0 U
µg/L	SW8260	1,2,4-Trichlorobenzene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	1,2,4-Trimethylbenzene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	1,2-Dibromo-3-Chloropropane		5.0 U	40 U	20 U
µg/L	SW8260	1,2-Dichlorobenzene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	1,2-Dichloroethane		1.0 U	8.0 U	4.0 U
µg/L	SW8260	1,2-Dichloropropane		1.0 U	8.0 U	4.0 U
µg/L	SW8260	1,3,5-Trimethylbenzene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	1,3-Dichlorobenzene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	1,3-Dichloropropane		1.0 U	8.0 U	4.0 U
µg/L	SW8260	1,4-Dichlorobenzene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	1,4-Dioxane		50 U	400 U	200 U
µg/L	SW8260	2,2-Dichloropropane		1.0 U	8.0 U	4.0 U
µg/L	SW8260	2-Butanone (MEK)		10 U	80 U	40 U
µg/L	SW8260	2-Chlorotoluene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	2-Hexanone		10 U	80 U	40 U
µg/L	SW8260	4-Chlorotoluene		1.0 U	8.0 U	4.0 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units	Method	Parameter Name	Field Sample ID	C041118-CLW22B	C041118-OSW4I	C041118-PP2
			Location	CLW-22B	OSW-4I	PP-2
		Sample Date	04/11/2018	04/11/2018	04/11/2018	
		Sample Delivery Group	480-133969-1	480-133969-1	480-133969-1	
µg/L	SW8260	4-Isopropyltoluene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	4-Methyl-2-pentanone (MIBK)		10 U	80 U	40 U
µg/L	SW8260	Acetone		50 U	400 U	200 U
µg/L	SW8260	Benzene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Bromobenzene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Bromoform		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Bromomethane		2.0 U	16 U	8.0 U
µg/L	SW8260	Carbon disulfide		10 U	80 U	40 U
µg/L	SW8260	Carbon tetrachloride		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Chlorobenzene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Chlorobromomethane		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Chlorodibromomethane		0.50 U	4.0 U	2.0 U
µg/L	SW8260	Chloroethane		2.0 U	16 U	8.0 U
µg/L	SW8260	Chloroform		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Chloromethane		2.0 U	16 U	8.0 U
µg/L	SW8260	cis-1,2-Dichloroethene		1.7	110	53
µg/L	SW8260	cis-1,3-Dichloropropene		0.40 U	3.2 U	1.6 U
µg/L	SW8260	Dibromomethane		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Dichlorobromomethane		0.50 U	4.0 U	2.0 U
µg/L	SW8260	Dichlorodifluoromethane		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Ethyl ether		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Ethylbenzene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Ethylene Dibromide		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Hexachlorobutadiene		0.40 U	3.2 U	1.6 U
µg/L	SW8260	Isopropyl ether		10 U	80 U	40 U
µg/L	SW8260	Isopropylbenzene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	m-Xylene & p-Xylene		2.0 U	16 U	8.0 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units	Method	Parameter Name	Field Sample ID	C041118-CLW22B	C041118-OSW4I	C041118-PP2
			Location	CLW-22B	OSW-4I	PP-2
		Sample Date	04/11/2018	04/11/2018	04/11/2018	04/11/2018
		Sample Delivery Group	480-133969-1	480-133969-1	480-133969-1	480-133969-1
µg/L	SW8260	Methyl tert-butyl ether		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Methylene Chloride		1.0 U	8.0 U	4.0 U
µg/L	SW8260	n-Butylbenzene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	N-Propylbenzene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Naphthalene		5.0 U	40 U	20 U
µg/L	SW8260	o-Xylene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	sec-Butylbenzene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Styrene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Tert-amyl methyl ether		5.0 U	40 U	20 U
µg/L	SW8260	Tert-butyl ethyl ether		5.0 U	40 U	20 U
µg/L	SW8260	tert-Butylbenzene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Tetrachloroethene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Tetrahydrofuran		10 U	80 U	40 U
µg/L	SW8260	Toluene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	trans-1,2-Dichloroethene		1.0 U	8.0 U	4.0 U
µg/L	SW8260	trans-1,3-Dichloropropene		0.40 U	3.2 U	1.6 U
µg/L	SW8260	Trichloroethene		11	270	110
µg/L	SW8260	Trichlorofluoromethane		1.0 U	8.0 U	4.0 U
µg/L	SW8260	Vinyl chloride		1.0 U	9.4	5.6

Notes:

U = undetected

J = estimated value

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID Location Sample Date Sample Delivery Group	C041218-CLW16B CLW-16B 04/12/2018 480-134067-1	C041218-CLW16BDUP CLW-16B 04/12/2018 480-134067-1	C041218-OSW2B OSW-2B 04/12/2018 480-134067-1	C041218-OSW3A OSW-3A 04/12/2018 480-134067-1
Units Method	Parameter Name			
mg/L SW7196	Chromium, hexavalent	0.010 U	0.010 U	0.17
µg/L SW6010	Chromium	18	19	700
µg/L SW8260	1,1,1,2-Tetrachloroethane	130 U	130 U	40 U
µg/L SW8260	1,1,1-Trichloroethane	130 U	130 U	40 U
µg/L SW8260	1,1,2,2-Tetrachloroethane	63 U	63 U	20 U
µg/L SW8260	1,1,2-Trichloroethane	130 U	130 U	40 U
µg/L SW8260	1,1-Dichloroethane	130 U	130 U	40 U
µg/L SW8260	1,1-Dichloroethene	130 U	130 U	40 U
µg/L SW8260	1,1-Dichloropropene	130 U	130 U	40 U
µg/L SW8260	1,2,3-Trichlorobenzene	130 U	130 U	40 U
µg/L SW8260	1,2,3-Trichloropropane	130 U	130 U	40 U
µg/L SW8260	1,2,4-Trichlorobenzene	130 U	130 U	40 U
µg/L SW8260	1,2,4-Trimethylbenzene	130 U	130 U	40 U
µg/L SW8260	1,2-Dibromo-3-Chloropropane	630 U	630 U	200 U
µg/L SW8260	1,2-Dichlorobenzene	130 U	130 U	40 U
µg/L SW8260	1,2-Dichloroethane	130 U	130 U	40 U
µg/L SW8260	1,2-Dichloropropane	130 U	130 U	40 U
µg/L SW8260	1,3,5-Trimethylbenzene	130 U	130 U	40 U
µg/L SW8260	1,3-Dichlorobenzene	130 U	130 U	40 U
µg/L SW8260	1,3-Dichloropropane	130 U	130 U	40 U
µg/L SW8260	1,4-Dichlorobenzene	130 U	130 U	40 U
µg/L SW8260	1,4-Dioxane	6300 U	6300 U	2000 U
µg/L SW8260	2,2-Dichloropropane	130 U	130 U	40 U
µg/L SW8260	2-Butanone (MEK)	1300 U	1300 U	400 U
µg/L SW8260	2-Chlorotoluene	130 U	130 U	40 U
µg/L SW8260	2-Hexanone	1300 U	1300 U	400 U
µg/L SW8260	4-Chlorotoluene	130 U	130 U	40 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID Location Sample Date Sample Delivery Group	C041218-CLW16B CLW-16B 04/12/2018 480-134067-1	C041218-CLW16BDUP CLW-16B 04/12/2018 480-134067-1	C041218-OSW2B OSW-2B 04/12/2018 480-134067-1	C041218-OSW3A OSW-3A 04/12/2018 480-134067-1
Units Method	Parameter Name			
µg/L SW8260	4-Isopropyltoluene	130 U	130 U	40 U
µg/L SW8260	4-Methyl-2-pentanone (MIBK)	1300 U	1300 U	400 U
µg/L SW8260	Acetone	6300 U	6300 U	2000 U
µg/L SW8260	Benzene	130 U	130 U	40 U
µg/L SW8260	Bromobenzene	130 U	130 U	40 U
µg/L SW8260	Bromoform	130 U	130 U	40 U
µg/L SW8260	Bromomethane	250 U	250 U	80 U
µg/L SW8260	Carbon disulfide	1300 U	1300 U	400 U
µg/L SW8260	Carbon tetrachloride	130 U	130 U	40 U
µg/L SW8260	Chlorobenzene	130 U	130 U	40 U
µg/L SW8260	Chlorobromomethane	130 U	130 U	40 U
µg/L SW8260	Chlorodibromomethane	63 U	63 U	20 U
µg/L SW8260	Chloroethane	250 U	250 U	80 U
µg/L SW8260	Chloroform	130 U	130 U	40 U
µg/L SW8260	Chloromethane	250 U	250 U	80 U
µg/L SW8260	cis-1,2-Dichloroethene	1800	1800	110
µg/L SW8260	cis-1,3-Dichloropropene	50 U	50 U	16 U
µg/L SW8260	Dibromomethane	130 U	130 U	40 U
µg/L SW8260	Dichlorobromomethane	63 U	63 U	20 U
µg/L SW8260	Dichlorodifluoromethane	130 U	130 U	40 U
µg/L SW8260	Ethyl ether	130 U	130 U	40 U
µg/L SW8260	Ethylbenzene	130 U	130 U	40 U
µg/L SW8260	Ethylene Dibromide	130 U	130 U	40 U
µg/L SW8260	Hexachlorobutadiene	50 U	50 U	16 U
µg/L SW8260	Isopropyl ether	1300 U	1300 U	400 U
µg/L SW8260	Isopropylbenzene	130 U	130 U	40 U
µg/L SW8260	m-Xylene & p-Xylene	250 U	250 U	80 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID Location Sample Date Sample Delivery Group	C041218-CLW16B CLW-16B 04/12/2018 480-134067-1	C041218-CLW16BDUP CLW-16B 04/12/2018 480-134067-1	C041218-OSW2B OSW-2B 04/12/2018 480-134067-1	C041218-OSW3A OSW-3A 04/12/2018 480-134067-1
Units Method	Parameter Name			
µg/L SW8260	Methyl tert-butyl ether	130 U	130 U	40 U
µg/L SW8260	Methylene Chloride	71 J	82 J	40 U
µg/L SW8260	n-Butylbenzene	130 U	130 U	40 U
µg/L SW8260	N-Propylbenzene	130 U	130 U	40 U
µg/L SW8260	Naphthalene	630 U	630 U	200 U
µg/L SW8260	o-Xylene	130 U	130 U	40 U
µg/L SW8260	sec-Butylbenzene	130 U	130 U	40 U
µg/L SW8260	Styrene	130 U	130 U	40 U
µg/L SW8260	Tert-amyl methyl ether	630 U	630 U	200 U
µg/L SW8260	Tert-butyl ethyl ether	630 U	630 U	200 U
µg/L SW8260	tert-Butylbenzene	130 U	130 U	40 U
µg/L SW8260	Tetrachloroethene	130 U	130 U	40 U
µg/L SW8260	Tetrahydrofuran	1300 U	1300 U	400 U
µg/L SW8260	Toluene	130 U	130 U	40 U
µg/L SW8260	trans-1,2-Dichloroethene	270	240	43
µg/L SW8260	trans-1,3-Dichloropropene	50 U	50 U	16 U
µg/L SW8260	Trichloroethene	6700	6800	1800
µg/L SW8260	Trichlorofluoromethane	130 U	130 U	40 U
µg/L SW8260	Vinyl chloride	590	540	40 U

Notes:

U = undetected

J = estimated value

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID Location Sample Date Sample Delivery Group	C041218-OSW3B OSW-3B 04/12/2018 480-134067-1	C041218-PP3 PP-3 04/12/2018 480-134067-1	C041218-PP4A PP-4A 04/12/2018 480-134067-1	C041218-PP4B PP-4B 04/12/2018 480-134067-1	C041218-Trip Blank QC 04/12/2018 480-134067-1
Units Method	Parameter Name				
mg/L SW7196	Chromium, hexavalent	0.010 U	0.55	0.032	0.018
µg/L SW6010	Chromium	5.0 U	590	32	25
µg/L SW8260	1,1,1,2-Tetrachloroethane	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	1,1,1-Trichloroethane	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	1,1,2,2-Tetrachloroethane	2.0 U	2.5 U	0.50 U	10 U
µg/L SW8260	1,1,2-Trichloroethane	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	1,1-Dichloroethane	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	1,1-Dichloroethene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	1,1-Dichloropropene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	1,2,3-Trichlorobenzene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	1,2,3-Trichloropropane	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	1,2,4-Trichlorobenzene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	1,2,4-Trimethylbenzene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	1,2-Dibromo-3-Chloropropane	20 U	25 U	5.0 U	100 U
µg/L SW8260	1,2-Dichlorobenzene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	1,2-Dichloroethane	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	1,2-Dichloropropane	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	1,3,5-Trimethylbenzene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	1,3-Dichlorobenzene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	1,3-Dichloropropane	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	1,4-Dichlorobenzene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	1,4-Dioxane	200 U	250 U	50 U	1000 U
µg/L SW8260	2,2-Dichloropropane	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	2-Butanone (MEK)	40 U	50 U	10 U	200 U
µg/L SW8260	2-Chlorotoluene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	2-Hexanone	40 U	50 U	10 U	200 U
µg/L SW8260	4-Chlorotoluene	4.0 U	5.0 U	1.0 U	20 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID Location Sample Date Sample Delivery Group Parameter Name	C041218-OSW3B OSW-3B 04/12/2018 480-134067-1	C041218-PP3 PP-3 04/12/2018 480-134067-1	C041218-PP4A PP-4A 04/12/2018 480-134067-1	C041218-PP4B PP-4B 04/12/2018 480-134067-1	C041218-Trip Blank QC 04/12/2018 480-134067-1
Units Method					
µg/L SW8260 4-Isopropyltoluene	4.0 U	5.0 U	1.0 U	20 U	1.0 U
µg/L SW8260 4-Methyl-2-pentanone (MIBK)	40 U	50 U	10 U	200 U	10 U
µg/L SW8260 Acetone	200 U	250 U	50 U	1000 U	50 U
µg/L SW8260 Benzene	4.0 U	5.0 U	1.0 U	20 U	1.0 U
µg/L SW8260 Bromobenzene	4.0 U	5.0 U	1.0 U	20 U	1.0 U
µg/L SW8260 Bromoform	4.0 U	5.0 U	1.0 U	20 U	1.0 U
µg/L SW8260 Bromomethane	8.0 U	10 U	2.0 U	40 U	2.0 U
µg/L SW8260 Carbon disulfide	40 U	50 U	10 U	200 U	10 U
µg/L SW8260 Carbon tetrachloride	4.0 U	5.0 U	1.0 U	20 U	1.0 U
µg/L SW8260 Chlorobenzene	4.0 U	5.0 U	1.0 U	20 U	1.0 U
µg/L SW8260 Chlorobromomethane	4.0 U	5.0 U	1.0 U	20 U	1.0 U
µg/L SW8260 Chlorodibromomethane	2.0 U	2.5 U	0.50 U	10 U	0.50 U
µg/L SW8260 Chloroethane	8.0 U	10 U	2.0 U	40 U	2.0 U
µg/L SW8260 Chloroform	4.0 U	5.0 U	1.0 U	20 U	1.0 U
µg/L SW8260 Chloromethane	8.0 U	10 U	2.0 U	40 U	2.0 U
µg/L SW8260 cis-1,2-Dichloroethene	120	24	4.5	360	1.0 U
µg/L SW8260 cis-1,3-Dichloropropene	1.6 U	2.0 U	0.40 U	8.0 U	0.40 U
µg/L SW8260 Dibromomethane	4.0 U	5.0 U	1.0 U	20 U	1.0 U
µg/L SW8260 Dichlorobromomethane	2.0 U	2.5 U	0.50 U	10 U	0.50 U
µg/L SW8260 Dichlorodifluoromethane	4.0 U	5.0 U	1.0 U	20 U	1.0 U
µg/L SW8260 Ethyl ether	4.0 U	5.0 U	1.0 U	20 U	1.0 U
µg/L SW8260 Ethylbenzene	4.0 U	5.0 U	1.0 U	20 U	1.0 U
µg/L SW8260 Ethylene Dibromide	4.0 U	5.0 U	1.0 U	20 U	1.0 U
µg/L SW8260 Hexachlorobutadiene	1.6 U	2.0 U	0.40 U	8.0 U	0.40 U
µg/L SW8260 Isopropyl ether	40 U	50 U	10 U	200 U	10 U
µg/L SW8260 Isopropylbenzene	4.0 U	5.0 U	1.0 U	20 U	1.0 U
µg/L SW8260 m-Xylene & p-Xylene	8.0 U	10 U	2.0 U	40 U	2.0 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID Location Sample Date Sample Delivery Group	C041218-OSW3B OSW-3B 04/12/2018 480-134067-1	C041218-PP3 PP-3 04/12/2018 480-134067-1	C041218-PP4A PP-4A 04/12/2018 480-134067-1	C041218-PP4B PP-4B 04/12/2018 480-134067-1	C041218-Trip Blank QC 04/12/2018 480-134067-1
Units Method	Parameter Name				
µg/L SW8260	Methyl tert-butyl ether	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	Methylene Chloride	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	n-Butylbenzene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	N-Propylbenzene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	Naphthalene	20 U	25 U	5.0 U	100 U
µg/L SW8260	o-Xylene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	sec-Butylbenzene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	Styrene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	Tert-amyl methyl ether	20 U	25 U	5.0 U	100 U
µg/L SW8260	Tert-butyl ethyl ether	20 U	25 U	5.0 U	100 U
µg/L SW8260	tert-Butylbenzene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	Tetrachloroethene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	Tetrahydrofuran	40 U	50 U	10 U	200 U
µg/L SW8260	Toluene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	trans-1,2-Dichloroethene	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	trans-1,3-Dichloropropene	1.6 U	2.0 U	0.40 U	8.0 U
µg/L SW8260	Trichloroethene	160	260	47	440
µg/L SW8260	Trichlorofluoromethane	4.0 U	5.0 U	1.0 U	20 U
µg/L SW8260	Vinyl chloride	4.0 U	5.0 U	1.0 U	20 U

Notes:

U = undetected

J = estimated value

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units	Method	Parameter Name	Field Sample ID	C041318-RB1	C041318-RB2
			Location	QC 04/13/2018	QC 04/13/2018
		Sample Date			
		Sample Delivery Group		480-134154-1	480-134154-1
mg/L	SW7196	Chromium, hexavalent		0.010 U	0.010 U
µg/L	SW6010	Chromium		5.0 U	5.0 U
µg/L	SW8260	1,1,1,2-Tetrachloroethane		1.0 U	1.0 U
µg/L	SW8260	1,1,1-Trichloroethane		1.0 U	1.0 U
µg/L	SW8260	1,1,2,2-Tetrachloroethane		0.50 U	0.50 U
µg/L	SW8260	1,1,2-Trichloroethane		1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloroethane		1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloroethene		1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloropropene		1.0 U	1.0 U
µg/L	SW8260	1,2,3-Trichlorobenzene		1.0 U	1.0 U
µg/L	SW8260	1,2,3-Trichloropropane		1.0 U	1.0 U
µg/L	SW8260	1,2,4-Trichlorobenzene		1.0 U	1.0 U
µg/L	SW8260	1,2,4-Trimethylbenzene		1.0 U	1.0 U
µg/L	SW8260	1,2-Dibromo-3-Chloropropane		5.0 U	5.0 U
µg/L	SW8260	1,2-Dichlorobenzene		1.0 U	1.0 U
µg/L	SW8260	1,2-Dichloroethane		1.0 U	1.0 U
µg/L	SW8260	1,2-Dichloropropane		1.0 U	1.0 U
µg/L	SW8260	1,3,5-Trimethylbenzene		1.0 U	1.0 U
µg/L	SW8260	1,3-Dichlorobenzene		1.0 U	1.0 U
µg/L	SW8260	1,3-Dichloropropane		1.0 U	1.0 U
µg/L	SW8260	1,4-Dichlorobenzene		1.0 U	1.0 U
µg/L	SW8260	1,4-Dioxane		50 U	50 U
µg/L	SW8260	2,2-Dichloropropane		1.0 U	1.0 U
µg/L	SW8260	2-Butanone (MEK)		4.4 J	4.1 J
µg/L	SW8260	2-Chlorotoluene		1.0 U	1.0 U
µg/L	SW8260	2-Hexanone		10 U	10 U
µg/L	SW8260	4-Chlorotoluene		1.0 U	1.0 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units	Method	Parameter Name	Field Sample ID	C041318-RB1	C041318-RB2
			Location	QC 04/13/2018	QC 04/13/2018
		Sample Date	480-134154-1	480-134154-1	
Units	Method	Parameter Name			
µg/L	SW8260	4-Isopropyltoluene		1.0 U	1.0 U
µg/L	SW8260	4-Methyl-2-pentanone (MIBK)		10 U	10 U
µg/L	SW8260	Acetone		28 J	14 J
µg/L	SW8260	Benzene		1.0 U	1.0 U
µg/L	SW8260	Bromobenzene		1.0 U	1.0 U
µg/L	SW8260	Bromoform		1.0 U	1.0 U
µg/L	SW8260	Bromomethane		2.0 U	2.0 U
µg/L	SW8260	Carbon disulfide		10 U	10 U
µg/L	SW8260	Carbon tetrachloride		1.0 U	1.0 U
µg/L	SW8260	Chlorobenzene		1.0 U	1.0 U
µg/L	SW8260	Chlorobromomethane		1.0 U	1.0 U
µg/L	SW8260	Chlorodibromomethane		0.50 U	0.50 U
µg/L	SW8260	Chloroethane		2.0 U	2.0 U
µg/L	SW8260	Chloroform		1.0 U	1.0 U
µg/L	SW8260	Chloromethane		2.0 U	2.0 U
µg/L	SW8260	cis-1,2-Dichloroethene		1.0 U	1.0 U
µg/L	SW8260	cis-1,3-Dichloropropene		0.40 U	0.40 U
µg/L	SW8260	Dibromomethane		1.0 U	1.0 U
µg/L	SW8260	Dichlorobromomethane		0.50 U	0.50 U
µg/L	SW8260	Dichlorodifluoromethane		1.0 U	1.0 U
µg/L	SW8260	Ethyl ether		1.0 U	1.0 U
µg/L	SW8260	Ethylbenzene		1.0 U	1.0 U
µg/L	SW8260	Ethylene Dibromide		1.0 U	1.0 U
µg/L	SW8260	Hexachlorobutadiene		0.40 U	0.40 U
µg/L	SW8260	Isopropyl ether		10 U	10 U
µg/L	SW8260	Isopropylbenzene		1.0 U	1.0 U
µg/L	SW8260	m-Xylene & p-Xylene		2.0 U	2.0 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
APRIL 2018 GROUNDWATER/SURFACE WATER SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Units	Method	Parameter Name	Field Sample ID	C041318-RB1	C041318-RB2
			Location	QC 04/13/2018 480-134154-1	QC 04/13/2018 480-134154-1
µg/L	SW8260	Methyl tert-butyl ether		1.0 U	1.0 U
µg/L	SW8260	Methylene Chloride		0.44 J	0.49 J
µg/L	SW8260	n-Butylbenzene		1.0 U	1.0 U
µg/L	SW8260	N-Propylbenzene		1.0 U	1.0 U
µg/L	SW8260	Naphthalene		5.0 U	5.0 U
µg/L	SW8260	o-Xylene		1.0 U	1.0 U
µg/L	SW8260	sec-Butylbenzene		1.0 U	1.0 U
µg/L	SW8260	Styrene		1.0 U	1.0 U
µg/L	SW8260	Tert-amyl methyl ether		5.0 U	5.0 U
µg/L	SW8260	Tert-butyl ethyl ether		5.0 U	5.0 U
µg/L	SW8260	tert-Butylbenzene		1.0 U	1.0 U
µg/L	SW8260	Tetrachloroethene		1.0 U	1.0 U
µg/L	SW8260	Tetrahydrofuran		10 U	10 U
µg/L	SW8260	Toluene		1.0 U	1.0 U
µg/L	SW8260	trans-1,2-Dichloroethene		1.0 U	1.0 U
µg/L	SW8260	trans-1,3-Dichloropropene		0.40 U	0.40 U
µg/L	SW8260	Trichloroethene		1.0 U	1.0 U
µg/L	SW8260	Trichlorofluoromethane		1.0 U	1.0 U
µg/L	SW8260	Vinyl chloride		1.0 U	1.0 U

Notes:

U = undetected

J = estimated value

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-133458-1

Client Project/Site: April 2018 Quarterly Surface Water

Sampling Event: Quarterly Surface Water

For:

Honeywell International Inc
Remediation & Evaluation Services
115 Tabor Road
Morris Plains, New Jersey 07950

Attn: Ms. Maria Kaouris



Authorized for release by:

4/16/2018 1:31:19 PM

Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II
(716)504-9838

john.schove@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Job ID: 480-133458-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-133458-1

Comments

No additional comments.

Receipt

The samples were received on 4/3/2018 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8° C.

GC/MS VOA

Method(s) 8260C: With the exception of diluted samples, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for Carbon disulfide, Isopropyl ether, Naphthalene, tert-Butyl ethyl ether, tert-Amyl methyl Ether, & Tetrahydrofuran

Method(s) 8260, 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batch 480-406894 exceeded control limits for the following analytes: 2-Butanone and 2-Hexanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate and n-butyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following samples were affected : CO40218-CSW5 (480-133458-1), CO40218-CSW4 (480-133458-2), CO40218-CSW3A (480-133458-3), CO40218-CSW3 (480-133458-4), CO40218-CSW3DUP (480-133458-5) and CO40218-CSW2 (480-133458-6).

Method(s) 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch analytical batch 480-406894 recovered outside control limits for the following analyte: 1,4-Dioxane.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-406894 recovered above the upper MCP control limit but less than 40% for 1,2-Dibromo-3-Chloropropane . MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. The following samples are impacted: CO40218-CSW5 (480-133458-1), CO40218-CSW4 (480-133458-2), CO40218-CSW3A (480-133458-3), CO40218-CSW3 (480-133458-4), CO40218-CSW3DUP (480-133458-5) and CO40218-CSW2 (480-133458-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010: The Low Level Continuing Calibration Verification (CCVL 480-408018/19) contained Dissolved Potassium outside the control limits. All reported samples (LCS 480-406931/2-B), (LCSD 480-406931/3-B) and (MB 480-406931/1-B) associated with this CCVL were either below the laboratory's standard reporting limit for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCVL; therefore, re-analysis of samples was not performed.

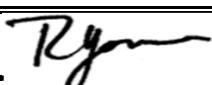
Method(s) 6010: At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

MassDEP Analytical Protocol Certification Form

Laboratory Name: TestAmerica Buffalo		Project #: 480-133458-1			
Project Location: Groton		RTN:			
This form provides certifications for the following data set: list Laboratory Sample ID Number(s): 480-133458-1(1-6)					
Matrices: <input checked="" type="checkbox"/> Groundwater/Surface Water <input type="checkbox"/> Soil/Sediment <input type="checkbox"/> Drinking Water <input type="checkbox"/> Air <input type="checkbox"/> Other:					
CAM Protocols (check all that apply below):					
8260 VOC CAM II A <input checked="" type="checkbox"/>	7470/7471 Hg CAM III B	Mass DEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input checked="" type="checkbox"/>	Mass DEP APH CAM IX A <input type="checkbox"/>
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	Mass DEP EPH CAM IV B <input type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>
6010 Metals CAM III A <input checked="" type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9014 Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>	
Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status					
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
E	a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?			<input type="checkbox"/> Yes	<input type="checkbox"/> No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Responses to Questions G, H and I below are required for "Presumptive Certainty" status					
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350					
H	Were all QC performance standards specified in the CAM protocol(s) achieved?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
¹ All negative responses must be addressed in an attached laboratory narrative.					
I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.					
Signature:			Position:	Project Management Assistant	
Printed Name:	Rebecca Jones		Date:	4/16/18 13:28	

Detection Summary

Client: Honeywell International Inc

Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Client Sample ID: CO40218-CSW5

Lab Sample ID: 480-133458-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium, Dissolved	29000		500	100	ug/L	1	6010		Dissolved
Chromium, Dissolved	17		5.0	1.0	ug/L	1	6010		Dissolved
Copper, Dissolved	6.5 J		10	1.6	ug/L	1	6010		Dissolved
Magnesium, Dissolved	2400		200	43	ug/L	1	6010		Dissolved
Potassium, Dissolved	3300 B		500	100	ug/L	1	6010		Dissolved
Sodium, Dissolved	44000		1000	320	ug/L	1	6010		Dissolved
Chromium, hexavalent	0.014		0.010	0.0050	mg/L	1	7196A		Total/NA

Client Sample ID: CO40218-CSW4

Lab Sample ID: 480-133458-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.74	J	1.0	0.46	ug/L	1	8260C		Total/NA
Calcium, Dissolved	29000		500	100	ug/L	1	6010		Dissolved
Chromium, Dissolved	21		5.0	1.0	ug/L	1	6010		Dissolved
Copper, Dissolved	3.6 J		10	1.6	ug/L	1	6010		Dissolved
Magnesium, Dissolved	2500		200	43	ug/L	1	6010		Dissolved
Potassium, Dissolved	3300 B		500	100	ug/L	1	6010		Dissolved
Sodium, Dissolved	79000		1000	320	ug/L	1	6010		Dissolved
Chromium, hexavalent	0.027		0.010	0.0050	mg/L	1	7196A		Total/NA

Client Sample ID: CO40218-CSW3A

Lab Sample ID: 480-133458-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.81	J	1.0	0.46	ug/L	1	8260C		Total/NA
Calcium, Dissolved	30000		500	100	ug/L	1	6010		Dissolved
Chromium, Dissolved	20		5.0	1.0	ug/L	1	6010		Dissolved
Copper, Dissolved	3.4 J		10	1.6	ug/L	1	6010		Dissolved
Magnesium, Dissolved	2500		200	43	ug/L	1	6010		Dissolved
Potassium, Dissolved	3400 B		500	100	ug/L	1	6010		Dissolved
Sodium, Dissolved	56000		1000	320	ug/L	1	6010		Dissolved
Chromium, hexavalent	0.018		0.010	0.0050	mg/L	1	7196A		Total/NA

Client Sample ID: CO40218-CSW3

Lab Sample ID: 480-133458-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.74	J	1.0	0.46	ug/L	1	8260C		Total/NA
Calcium, Dissolved	28000		500	100	ug/L	1	6010		Dissolved
Chromium, Dissolved	14		5.0	1.0	ug/L	1	6010		Dissolved
Copper, Dissolved	3.4 J		10	1.6	ug/L	1	6010		Dissolved
Magnesium, Dissolved	2400		200	43	ug/L	1	6010		Dissolved
Potassium, Dissolved	3200 B		500	100	ug/L	1	6010		Dissolved
Sodium, Dissolved	34000		1000	320	ug/L	1	6010		Dissolved
Chromium, hexavalent	0.014		0.010	0.0050	mg/L	1	7196A		Total/NA

Client Sample ID: CO40218-CSW3DUP

Lab Sample ID: 480-133458-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.0	J	50	3.0	ug/L	1	8260C		Total/NA
Trichloroethene	1.0		1.0	0.46	ug/L	1	8260C		Total/NA
Calcium, Dissolved	29000		500	100	ug/L	1	6010		Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: Honeywell International Inc

Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Client Sample ID: CO40218-CSW3DUP (Continued)

Lab Sample ID: 480-133458-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium, Dissolved	14		5.0	1.0	ug/L	1		6010	Dissolved
Magnesium, Dissolved	2400		200	43	ug/L	1		6010	Dissolved
Potassium, Dissolved	3300	B	500	100	ug/L	1		6010	Dissolved
Sodium, Dissolved	35000		1000	320	ug/L	1		6010	Dissolved
Chromium, hexavalent	0.017		0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: CO40218-CSW2

Lab Sample ID: 480-133458-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium, Dissolved	30000		500	100	ug/L	1		6010	Dissolved
Copper, Dissolved	6.4	J	10	1.6	ug/L	1		6010	Dissolved
Magnesium, Dissolved	2500		200	43	ug/L	1		6010	Dissolved
Potassium, Dissolved	3400	B	500	100	ug/L	1		6010	Dissolved
Sodium, Dissolved	37000		1000	320	ug/L	1		6010	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
 Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Client Sample ID: CO40218-CSW5

Lab Sample ID: 480-133458-1

Matrix: Water

Date Collected: 04/02/18 09:30

Date Received: 04/03/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L		04/03/18 16:19		1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L		04/03/18 16:19		1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L		04/03/18 16:19		1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L		04/03/18 16:19		1
1,1-Dichloroethane	ND		1.0	0.38	ug/L		04/03/18 16:19		1
1,1-Dichloroethene	ND		1.0	0.29	ug/L		04/03/18 16:19		1
1,1-Dichloropropene	ND		1.0	0.72	ug/L		04/03/18 16:19		1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L		04/03/18 16:19		1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L		04/03/18 16:19		1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L		04/03/18 16:19		1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L		04/03/18 16:19		1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L		04/03/18 16:19		1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L		04/03/18 16:19		1
1,2-Dichloroethane	ND		1.0	0.21	ug/L		04/03/18 16:19		1
1,2-Dichloropropene	ND		1.0	0.72	ug/L		04/03/18 16:19		1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L		04/03/18 16:19		1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L		04/03/18 16:19		1
1,3-Dichloropropene	ND		1.0	0.75	ug/L		04/03/18 16:19		1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L		04/03/18 16:19		1
1,4-Dioxane	ND *		50	9.3	ug/L		04/03/18 16:19		1
2,2-Dichloropropene	ND		1.0	0.40	ug/L		04/03/18 16:19		1
2-Butanone (MEK)	ND *		10	1.3	ug/L		04/03/18 16:19		1
2-Chlorotoluene	ND		1.0	0.86	ug/L		04/03/18 16:19		1
2-Hexanone	ND *		10	1.2	ug/L		04/03/18 16:19		1
4-Chlorotoluene	ND		1.0	0.84	ug/L		04/03/18 16:19		1
4-Isopropyltoluene	ND		1.0	0.31	ug/L		04/03/18 16:19		1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L		04/03/18 16:19		1
Acetone	ND		50	3.0	ug/L		04/03/18 16:19		1
Benzene	ND		1.0	0.41	ug/L		04/03/18 16:19		1
Bromobenzene	ND		1.0	0.80	ug/L		04/03/18 16:19		1
Bromoform	ND		1.0	0.26	ug/L		04/03/18 16:19		1
Bromomethane	ND		2.0	0.69	ug/L		04/03/18 16:19		1
Carbon disulfide	ND		10	0.19	ug/L		04/03/18 16:19		1
Carbon tetrachloride	ND		1.0	0.27	ug/L		04/03/18 16:19		1
Chlorobenzene	ND		1.0	0.75	ug/L		04/03/18 16:19		1
Chlorobromomethane	ND		1.0	0.87	ug/L		04/03/18 16:19		1
Chlorodibromomethane	ND		0.50	0.32	ug/L		04/03/18 16:19		1
Chloroethane	ND		2.0	0.32	ug/L		04/03/18 16:19		1
Chloroform	ND		1.0	0.34	ug/L		04/03/18 16:19		1
Chloromethane	ND		2.0	0.35	ug/L		04/03/18 16:19		1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L		04/03/18 16:19		1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L		04/03/18 16:19		1
Dibromomethane	ND		1.0	0.41	ug/L		04/03/18 16:19		1
Dichlorobromomethane	ND		0.50	0.39	ug/L		04/03/18 16:19		1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L		04/03/18 16:19		1
Ethyl ether	ND		1.0	0.72	ug/L		04/03/18 16:19		1
Ethylbenzene	ND		1.0	0.74	ug/L		04/03/18 16:19		1
Ethylene Dibromide	ND		1.0	0.73	ug/L		04/03/18 16:19		1
Hexachlorobutadiene	ND		0.40	0.28	ug/L		04/03/18 16:19		1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Client Sample ID: CO40218-CSW5

Date Collected: 04/02/18 09:30

Date Received: 04/03/18 01:00

Lab Sample ID: 480-133458-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/03/18 16:19	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/03/18 16:19	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/03/18 16:19	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/03/18 16:19	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/03/18 16:19	1
Naphthalene	ND		5.0	0.43	ug/L			04/03/18 16:19	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/03/18 16:19	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/03/18 16:19	1
o-Xylene	ND		1.0	0.76	ug/L			04/03/18 16:19	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/03/18 16:19	1
Styrene	ND		1.0	0.73	ug/L			04/03/18 16:19	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/03/18 16:19	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/03/18 16:19	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/03/18 16:19	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/03/18 16:19	1
Tetrahydrofuran	ND		10	1.3	ug/L			04/03/18 16:19	1
Toluene	ND		1.0	0.51	ug/L			04/03/18 16:19	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/03/18 16:19	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/03/18 16:19	1
Trichloroethene	ND		1.0	0.46	ug/L			04/03/18 16:19	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/03/18 16:19	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/03/18 16:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 130					04/03/18 16:19	1
4-Bromofluorobenzene (Surr)	103		70 - 130					04/03/18 16:19	1
Toluene-d8 (Surr)	102		70 - 130					04/03/18 16:19	1
Dibromofluoromethane (Surr)	100		70 - 130					04/03/18 16:19	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	29000		500	100	ug/L		04/04/18 10:57	04/05/18 18:57	1
Chromium, Dissolved	17		5.0	1.0	ug/L		04/04/18 10:57	04/05/18 18:57	1
Copper, Dissolved	6.5 J		10	1.6	ug/L		04/04/18 10:57	04/05/18 18:57	1
Magnesium, Dissolved	2400		200	43	ug/L		04/04/18 10:57	04/05/18 18:57	1
Potassium, Dissolved	3300 B		500	100	ug/L		04/04/18 10:57	04/06/18 12:06	1
Sodium, Dissolved	44000		1000	320	ug/L		04/04/18 10:57	04/05/18 18:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.014		0.010	0.0050	mg/L			04/03/18 08:47	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
 Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Client Sample ID: CO40218-CSW4

Date Collected: 04/02/18 09:50

Date Received: 04/03/18 01:00

Lab Sample ID: 480-133458-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L		04/03/18 16:44		1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L		04/03/18 16:44		1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L		04/03/18 16:44		1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L		04/03/18 16:44		1
1,1-Dichloroethane	ND		1.0	0.38	ug/L		04/03/18 16:44		1
1,1-Dichloroethene	ND		1.0	0.29	ug/L		04/03/18 16:44		1
1,1-Dichloropropene	ND		1.0	0.72	ug/L		04/03/18 16:44		1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L		04/03/18 16:44		1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L		04/03/18 16:44		1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L		04/03/18 16:44		1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L		04/03/18 16:44		1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L		04/03/18 16:44		1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L		04/03/18 16:44		1
1,2-Dichloroethane	ND		1.0	0.21	ug/L		04/03/18 16:44		1
1,2-Dichloropropene	ND		1.0	0.72	ug/L		04/03/18 16:44		1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L		04/03/18 16:44		1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L		04/03/18 16:44		1
1,3-Dichloropropene	ND		1.0	0.75	ug/L		04/03/18 16:44		1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L		04/03/18 16:44		1
1,4-Dioxane	ND *		50	9.3	ug/L		04/03/18 16:44		1
2,2-Dichloropropene	ND		1.0	0.40	ug/L		04/03/18 16:44		1
2-Butanone (MEK)	ND *		10	1.3	ug/L		04/03/18 16:44		1
2-Chlorotoluene	ND		1.0	0.86	ug/L		04/03/18 16:44		1
2-Hexanone	ND *		10	1.2	ug/L		04/03/18 16:44		1
4-Chlorotoluene	ND		1.0	0.84	ug/L		04/03/18 16:44		1
4-Isopropyltoluene	ND		1.0	0.31	ug/L		04/03/18 16:44		1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L		04/03/18 16:44		1
Acetone	ND		50	3.0	ug/L		04/03/18 16:44		1
Benzene	ND		1.0	0.41	ug/L		04/03/18 16:44		1
Bromobenzene	ND		1.0	0.80	ug/L		04/03/18 16:44		1
Bromoform	ND		1.0	0.26	ug/L		04/03/18 16:44		1
Bromomethane	ND		2.0	0.69	ug/L		04/03/18 16:44		1
Carbon disulfide	ND		10	0.19	ug/L		04/03/18 16:44		1
Carbon tetrachloride	ND		1.0	0.27	ug/L		04/03/18 16:44		1
Chlorobenzene	ND		1.0	0.75	ug/L		04/03/18 16:44		1
Chlorobromomethane	ND		1.0	0.87	ug/L		04/03/18 16:44		1
Chlorodibromomethane	ND		0.50	0.32	ug/L		04/03/18 16:44		1
Chloroethane	ND		2.0	0.32	ug/L		04/03/18 16:44		1
Chloroform	ND		1.0	0.34	ug/L		04/03/18 16:44		1
Chloromethane	ND		2.0	0.35	ug/L		04/03/18 16:44		1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L		04/03/18 16:44		1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L		04/03/18 16:44		1
Dibromomethane	ND		1.0	0.41	ug/L		04/03/18 16:44		1
Dichlorobromomethane	ND		0.50	0.39	ug/L		04/03/18 16:44		1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L		04/03/18 16:44		1
Ethyl ether	ND		1.0	0.72	ug/L		04/03/18 16:44		1
Ethylbenzene	ND		1.0	0.74	ug/L		04/03/18 16:44		1
Ethylene Dibromide	ND		1.0	0.73	ug/L		04/03/18 16:44		1
Hexachlorobutadiene	ND		0.40	0.28	ug/L		04/03/18 16:44		1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Client Sample ID: CO40218-CSW4

Lab Sample ID: 480-133458-2

Matrix: Water

Date Collected: 04/02/18 09:50

Date Received: 04/03/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/03/18 16:44	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/03/18 16:44	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/03/18 16:44	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/03/18 16:44	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/03/18 16:44	1
Naphthalene	ND		5.0	0.43	ug/L			04/03/18 16:44	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/03/18 16:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/03/18 16:44	1
o-Xylene	ND		1.0	0.76	ug/L			04/03/18 16:44	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/03/18 16:44	1
Styrene	ND		1.0	0.73	ug/L			04/03/18 16:44	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/03/18 16:44	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/03/18 16:44	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/03/18 16:44	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/03/18 16:44	1
Tetrahydrofuran	ND		10	1.3	ug/L			04/03/18 16:44	1
Toluene	ND		1.0	0.51	ug/L			04/03/18 16:44	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/03/18 16:44	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/03/18 16:44	1
Trichloroethene	0.74 J		1.0	0.46	ug/L			04/03/18 16:44	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/03/18 16:44	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/03/18 16:44	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96			70 - 130				04/03/18 16:44	1
4-Bromofluorobenzene (Surr)	109			70 - 130				04/03/18 16:44	1
Toluene-d8 (Surr)	104			70 - 130				04/03/18 16:44	1
Dibromofluoromethane (Surr)	98			70 - 130				04/03/18 16:44	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	29000		500	100	ug/L		04/04/18 10:57	04/05/18 19:01	1
Chromium, Dissolved	21		5.0	1.0	ug/L		04/04/18 10:57	04/05/18 19:01	1
Copper, Dissolved	3.6 J		10	1.6	ug/L		04/04/18 10:57	04/05/18 19:01	1
Magnesium, Dissolved	2500		200	43	ug/L		04/04/18 10:57	04/05/18 19:01	1
Potassium, Dissolved	3300 B		500	100	ug/L		04/04/18 10:57	04/06/18 12:10	1
Sodium, Dissolved	79000		1000	320	ug/L		04/04/18 10:57	04/05/18 19:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.027		0.010	0.0050	mg/L			04/03/18 08:47	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Client Sample ID: CO40218-CSW3A

Lab Sample ID: 480-133458-3

Matrix: Water

Date Collected: 04/02/18 10:15

Date Received: 04/03/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/03/18 17:10	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/03/18 17:10	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/03/18 17:10	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/03/18 17:10	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/03/18 17:10	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/03/18 17:10	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/03/18 17:10	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/03/18 17:10	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/03/18 17:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/03/18 17:10	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/03/18 17:10	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/03/18 17:10	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/03/18 17:10	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/03/18 17:10	1
1,2-Dichloropropene	ND		1.0	0.72	ug/L			04/03/18 17:10	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/03/18 17:10	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/03/18 17:10	1
1,3-Dichloropropene	ND		1.0	0.75	ug/L			04/03/18 17:10	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/03/18 17:10	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/03/18 17:10	1
2,2-Dichloropropene	ND		1.0	0.40	ug/L			04/03/18 17:10	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/03/18 17:10	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/03/18 17:10	1
2-Hexanone	ND *		10	1.2	ug/L			04/03/18 17:10	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/03/18 17:10	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/03/18 17:10	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/03/18 17:10	1
Acetone	ND		50	3.0	ug/L			04/03/18 17:10	1
Benzene	ND		1.0	0.41	ug/L			04/03/18 17:10	1
Bromobenzene	ND		1.0	0.80	ug/L			04/03/18 17:10	1
Bromoform	ND		1.0	0.26	ug/L			04/03/18 17:10	1
Bromomethane	ND		2.0	0.69	ug/L			04/03/18 17:10	1
Carbon disulfide	ND		10	0.19	ug/L			04/03/18 17:10	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/03/18 17:10	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/03/18 17:10	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/03/18 17:10	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/03/18 17:10	1
Chloroethane	ND		2.0	0.32	ug/L			04/03/18 17:10	1
Chloroform	ND		1.0	0.34	ug/L			04/03/18 17:10	1
Chloromethane	ND		2.0	0.35	ug/L			04/03/18 17:10	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/03/18 17:10	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/03/18 17:10	1
Dibromomethane	ND		1.0	0.41	ug/L			04/03/18 17:10	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/03/18 17:10	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/03/18 17:10	1
Ethyl ether	ND		1.0	0.72	ug/L			04/03/18 17:10	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/03/18 17:10	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/03/18 17:10	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/03/18 17:10	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Client Sample ID: CO40218-CSW3A

Lab Sample ID: 480-133458-3

Matrix: Water

Date Collected: 04/02/18 10:15

Date Received: 04/03/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L		04/03/18 17:10		1
Isopropylbenzene	ND		1.0	0.79	ug/L		04/03/18 17:10		1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L		04/03/18 17:10		1
Methylene Chloride	ND		1.0	0.44	ug/L		04/03/18 17:10		1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L		04/03/18 17:10		1
Naphthalene	ND		5.0	0.43	ug/L		04/03/18 17:10		1
n-Butylbenzene	ND		1.0	0.64	ug/L		04/03/18 17:10		1
N-Propylbenzene	ND		1.0	0.69	ug/L		04/03/18 17:10		1
o-Xylene	ND		1.0	0.76	ug/L		04/03/18 17:10		1
sec-Butylbenzene	ND		1.0	0.75	ug/L		04/03/18 17:10		1
Styrene	ND		1.0	0.73	ug/L		04/03/18 17:10		1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L		04/03/18 17:10		1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L		04/03/18 17:10		1
tert-Butylbenzene	ND		1.0	0.81	ug/L		04/03/18 17:10		1
Tetrachloroethene	ND		1.0	0.36	ug/L		04/03/18 17:10		1
Tetrahydrofuran	ND		10	1.3	ug/L		04/03/18 17:10		1
Toluene	ND		1.0	0.51	ug/L		04/03/18 17:10		1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L		04/03/18 17:10		1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L		04/03/18 17:10		1
Trichloroethene	0.81 J		1.0	0.46	ug/L		04/03/18 17:10		1
Trichlorofluoromethane	ND		1.0	0.88	ug/L		04/03/18 17:10		1
Vinyl chloride	ND		1.0	0.90	ug/L		04/03/18 17:10		1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130				04/03/18 17:10		1
4-Bromofluorobenzene (Surr)	109		70 - 130				04/03/18 17:10		1
Toluene-d8 (Surr)	103		70 - 130				04/03/18 17:10		1
Dibromofluoromethane (Surr)	99		70 - 130				04/03/18 17:10		1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	30000		500	100	ug/L		04/04/18 10:57	04/05/18 19:34	1
Chromium, Dissolved	20		5.0	1.0	ug/L		04/04/18 10:57	04/05/18 19:34	1
Copper, Dissolved	3.4 J		10	1.6	ug/L		04/04/18 10:57	04/05/18 19:34	1
Magnesium, Dissolved	2500		200	43	ug/L		04/04/18 10:57	04/05/18 19:34	1
Potassium, Dissolved	3400 B		500	100	ug/L		04/04/18 10:57	04/05/18 19:34	1
Sodium, Dissolved	56000		1000	320	ug/L		04/04/18 10:57	04/05/18 19:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.018		0.010	0.0050	mg/L		04/03/18 08:47		1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
 Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Client Sample ID: CO40218-CSW3

Lab Sample ID: 480-133458-4

Matrix: Water

Date Collected: 04/02/18 10:30

Date Received: 04/03/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/03/18 17:35	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/03/18 17:35	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/03/18 17:35	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/03/18 17:35	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/03/18 17:35	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/03/18 17:35	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/03/18 17:35	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/03/18 17:35	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/03/18 17:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/03/18 17:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/03/18 17:35	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/03/18 17:35	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/03/18 17:35	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/03/18 17:35	1
1,2-Dichloropropene	ND		1.0	0.72	ug/L			04/03/18 17:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/03/18 17:35	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/03/18 17:35	1
1,3-Dichloropropene	ND		1.0	0.75	ug/L			04/03/18 17:35	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/03/18 17:35	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/03/18 17:35	1
2,2-Dichloropropene	ND		1.0	0.40	ug/L			04/03/18 17:35	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/03/18 17:35	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/03/18 17:35	1
2-Hexanone	ND *		10	1.2	ug/L			04/03/18 17:35	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/03/18 17:35	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/03/18 17:35	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/03/18 17:35	1
Acetone	ND		50	3.0	ug/L			04/03/18 17:35	1
Benzene	ND		1.0	0.41	ug/L			04/03/18 17:35	1
Bromobenzene	ND		1.0	0.80	ug/L			04/03/18 17:35	1
Bromoform	ND		1.0	0.26	ug/L			04/03/18 17:35	1
Bromomethane	ND		2.0	0.69	ug/L			04/03/18 17:35	1
Carbon disulfide	ND		10	0.19	ug/L			04/03/18 17:35	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/03/18 17:35	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/03/18 17:35	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/03/18 17:35	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/03/18 17:35	1
Chloroethane	ND		2.0	0.32	ug/L			04/03/18 17:35	1
Chloroform	ND		1.0	0.34	ug/L			04/03/18 17:35	1
Chloromethane	ND		2.0	0.35	ug/L			04/03/18 17:35	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/03/18 17:35	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/03/18 17:35	1
Dibromomethane	ND		1.0	0.41	ug/L			04/03/18 17:35	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/03/18 17:35	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/03/18 17:35	1
Ethyl ether	ND		1.0	0.72	ug/L			04/03/18 17:35	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/03/18 17:35	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/03/18 17:35	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/03/18 17:35	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Client Sample ID: CO40218-CSW3

Date Collected: 04/02/18 10:30

Date Received: 04/03/18 01:00

Lab Sample ID: 480-133458-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/03/18 17:35	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/03/18 17:35	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/03/18 17:35	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/03/18 17:35	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/03/18 17:35	1
Naphthalene	ND		5.0	0.43	ug/L			04/03/18 17:35	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/03/18 17:35	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/03/18 17:35	1
o-Xylene	ND		1.0	0.76	ug/L			04/03/18 17:35	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/03/18 17:35	1
Styrene	ND		1.0	0.73	ug/L			04/03/18 17:35	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/03/18 17:35	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/03/18 17:35	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/03/18 17:35	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/03/18 17:35	1
Tetrahydrofuran	ND		10	1.3	ug/L			04/03/18 17:35	1
Toluene	ND		1.0	0.51	ug/L			04/03/18 17:35	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/03/18 17:35	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/03/18 17:35	1
Trichloroethene	0.74 J		1.0	0.46	ug/L			04/03/18 17:35	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/03/18 17:35	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/03/18 17:35	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93			70 - 130				04/03/18 17:35	1
4-Bromofluorobenzene (Surr)	109			70 - 130				04/03/18 17:35	1
Toluene-d8 (Surr)	103			70 - 130				04/03/18 17:35	1
Dibromofluoromethane (Surr)	97			70 - 130				04/03/18 17:35	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	28000		500	100	ug/L		04/04/18 10:57	04/05/18 19:04	1
Chromium, Dissolved	14		5.0	1.0	ug/L		04/04/18 10:57	04/05/18 19:04	1
Copper, Dissolved	3.4 J		10	1.6	ug/L		04/04/18 10:57	04/05/18 19:04	1
Magnesium, Dissolved	2400		200	43	ug/L		04/04/18 10:57	04/05/18 19:04	1
Potassium, Dissolved	3200 B		500	100	ug/L		04/04/18 10:57	04/06/18 12:14	1
Sodium, Dissolved	34000		1000	320	ug/L		04/04/18 10:57	04/05/18 19:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.014		0.010	0.0050	mg/L			04/03/18 08:47	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
 Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Client Sample ID: CO40218-CSW3DUP

Lab Sample ID: 480-133458-5

Matrix: Water

Date Collected: 04/02/18 10:30

Date Received: 04/03/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/03/18 18:01	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/03/18 18:01	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/03/18 18:01	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/03/18 18:01	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/03/18 18:01	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/03/18 18:01	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/03/18 18:01	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/03/18 18:01	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/03/18 18:01	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/03/18 18:01	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/03/18 18:01	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/03/18 18:01	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/03/18 18:01	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/03/18 18:01	1
1,2-Dichloropropene	ND		1.0	0.72	ug/L			04/03/18 18:01	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/03/18 18:01	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/03/18 18:01	1
1,3-Dichloropropene	ND		1.0	0.75	ug/L			04/03/18 18:01	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/03/18 18:01	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/03/18 18:01	1
2,2-Dichloropropene	ND		1.0	0.40	ug/L			04/03/18 18:01	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/03/18 18:01	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/03/18 18:01	1
2-Hexanone	ND *		10	1.2	ug/L			04/03/18 18:01	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/03/18 18:01	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/03/18 18:01	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/03/18 18:01	1
Acetone	3.0 J		50	3.0	ug/L			04/03/18 18:01	1
Benzene	ND		1.0	0.41	ug/L			04/03/18 18:01	1
Bromobenzene	ND		1.0	0.80	ug/L			04/03/18 18:01	1
Bromoform	ND		1.0	0.26	ug/L			04/03/18 18:01	1
Bromomethane	ND		2.0	0.69	ug/L			04/03/18 18:01	1
Carbon disulfide	ND		10	0.19	ug/L			04/03/18 18:01	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/03/18 18:01	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/03/18 18:01	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/03/18 18:01	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/03/18 18:01	1
Chloroethane	ND		2.0	0.32	ug/L			04/03/18 18:01	1
Chloroform	ND		1.0	0.34	ug/L			04/03/18 18:01	1
Chloromethane	ND		2.0	0.35	ug/L			04/03/18 18:01	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/03/18 18:01	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/03/18 18:01	1
Dibromomethane	ND		1.0	0.41	ug/L			04/03/18 18:01	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/03/18 18:01	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/03/18 18:01	1
Ethyl ether	ND		1.0	0.72	ug/L			04/03/18 18:01	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/03/18 18:01	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/03/18 18:01	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/03/18 18:01	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Client Sample ID: CO40218-CSW3DUP
Date Collected: 04/02/18 10:30
Date Received: 04/03/18 01:00

Lab Sample ID: 480-133458-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/03/18 18:01	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/03/18 18:01	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/03/18 18:01	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/03/18 18:01	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/03/18 18:01	1
Naphthalene	ND		5.0	0.43	ug/L			04/03/18 18:01	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/03/18 18:01	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/03/18 18:01	1
o-Xylene	ND		1.0	0.76	ug/L			04/03/18 18:01	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/03/18 18:01	1
Styrene	ND		1.0	0.73	ug/L			04/03/18 18:01	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/03/18 18:01	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/03/18 18:01	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/03/18 18:01	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/03/18 18:01	1
Tetrahydrofuran	ND		10	1.3	ug/L			04/03/18 18:01	1
Toluene	ND		1.0	0.51	ug/L			04/03/18 18:01	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/03/18 18:01	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/03/18 18:01	1
Trichloroethene	1.0		1.0	0.46	ug/L			04/03/18 18:01	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/03/18 18:01	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/03/18 18:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130					04/03/18 18:01	1
4-Bromofluorobenzene (Surr)	106		70 - 130					04/03/18 18:01	1
Toluene-d8 (Surr)	101		70 - 130					04/03/18 18:01	1
Dibromofluoromethane (Surr)	99		70 - 130					04/03/18 18:01	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	29000		500	100	ug/L		04/04/18 10:57	04/05/18 19:38	1
Chromium, Dissolved	14		5.0	1.0	ug/L		04/04/18 10:57	04/05/18 19:38	1
Copper, Dissolved	ND		10	1.6	ug/L		04/04/18 10:57	04/05/18 19:38	1
Magnesium, Dissolved	2400		200	43	ug/L		04/04/18 10:57	04/05/18 19:38	1
Potassium, Dissolved	3300	B	500	100	ug/L		04/04/18 10:57	04/05/18 19:38	1
Sodium, Dissolved	35000		1000	320	ug/L		04/04/18 10:57	04/05/18 19:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.017		0.010	0.0050	mg/L			04/03/18 08:47	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Client Sample ID: CO40218-CSW2

Lab Sample ID: 480-133458-6

Matrix: Water

Date Collected: 04/02/18 10:45

Date Received: 04/03/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L		04/03/18 18:26		1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L		04/03/18 18:26		1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L		04/03/18 18:26		1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L		04/03/18 18:26		1
1,1-Dichloroethane	ND		1.0	0.38	ug/L		04/03/18 18:26		1
1,1-Dichloroethene	ND		1.0	0.29	ug/L		04/03/18 18:26		1
1,1-Dichloropropene	ND		1.0	0.72	ug/L		04/03/18 18:26		1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L		04/03/18 18:26		1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L		04/03/18 18:26		1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L		04/03/18 18:26		1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L		04/03/18 18:26		1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L		04/03/18 18:26		1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L		04/03/18 18:26		1
1,2-Dichloroethane	ND		1.0	0.21	ug/L		04/03/18 18:26		1
1,2-Dichloropropene	ND		1.0	0.72	ug/L		04/03/18 18:26		1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L		04/03/18 18:26		1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L		04/03/18 18:26		1
1,3-Dichloropropene	ND		1.0	0.75	ug/L		04/03/18 18:26		1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L		04/03/18 18:26		1
1,4-Dioxane	ND *		50	9.3	ug/L		04/03/18 18:26		1
2,2-Dichloropropene	ND		1.0	0.40	ug/L		04/03/18 18:26		1
2-Butanone (MEK)	ND *		10	1.3	ug/L		04/03/18 18:26		1
2-Chlorotoluene	ND		1.0	0.86	ug/L		04/03/18 18:26		1
2-Hexanone	ND *		10	1.2	ug/L		04/03/18 18:26		1
4-Chlorotoluene	ND		1.0	0.84	ug/L		04/03/18 18:26		1
4-Isopropyltoluene	ND		1.0	0.31	ug/L		04/03/18 18:26		1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L		04/03/18 18:26		1
Acetone	ND		50	3.0	ug/L		04/03/18 18:26		1
Benzene	ND		1.0	0.41	ug/L		04/03/18 18:26		1
Bromobenzene	ND		1.0	0.80	ug/L		04/03/18 18:26		1
Bromoform	ND		1.0	0.26	ug/L		04/03/18 18:26		1
Bromomethane	ND		2.0	0.69	ug/L		04/03/18 18:26		1
Carbon disulfide	ND		10	0.19	ug/L		04/03/18 18:26		1
Carbon tetrachloride	ND		1.0	0.27	ug/L		04/03/18 18:26		1
Chlorobenzene	ND		1.0	0.75	ug/L		04/03/18 18:26		1
Chlorobromomethane	ND		1.0	0.87	ug/L		04/03/18 18:26		1
Chlorodibromomethane	ND		0.50	0.32	ug/L		04/03/18 18:26		1
Chloroethane	ND		2.0	0.32	ug/L		04/03/18 18:26		1
Chloroform	ND		1.0	0.34	ug/L		04/03/18 18:26		1
Chloromethane	ND		2.0	0.35	ug/L		04/03/18 18:26		1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L		04/03/18 18:26		1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L		04/03/18 18:26		1
Dibromomethane	ND		1.0	0.41	ug/L		04/03/18 18:26		1
Dichlorobromomethane	ND		0.50	0.39	ug/L		04/03/18 18:26		1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L		04/03/18 18:26		1
Ethyl ether	ND		1.0	0.72	ug/L		04/03/18 18:26		1
Ethylbenzene	ND		1.0	0.74	ug/L		04/03/18 18:26		1
Ethylene Dibromide	ND		1.0	0.73	ug/L		04/03/18 18:26		1
Hexachlorobutadiene	ND		0.40	0.28	ug/L		04/03/18 18:26		1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Client Sample ID: CO40218-CSW2

Lab Sample ID: 480-133458-6

Matrix: Water

Date Collected: 04/02/18 10:45
Date Received: 04/03/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/03/18 18:26	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/03/18 18:26	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/03/18 18:26	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/03/18 18:26	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/03/18 18:26	1
Naphthalene	ND		5.0	0.43	ug/L			04/03/18 18:26	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/03/18 18:26	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/03/18 18:26	1
o-Xylene	ND		1.0	0.76	ug/L			04/03/18 18:26	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/03/18 18:26	1
Styrene	ND		1.0	0.73	ug/L			04/03/18 18:26	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/03/18 18:26	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/03/18 18:26	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/03/18 18:26	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/03/18 18:26	1
Tetrahydrofuran	ND		10	1.3	ug/L			04/03/18 18:26	1
Toluene	ND		1.0	0.51	ug/L			04/03/18 18:26	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/03/18 18:26	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/03/18 18:26	1
Trichloroethene	ND		1.0	0.46	ug/L			04/03/18 18:26	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/03/18 18:26	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/03/18 18:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130					04/03/18 18:26	1
4-Bromofluorobenzene (Surr)	109		70 - 130					04/03/18 18:26	1
Toluene-d8 (Surr)	104		70 - 130					04/03/18 18:26	1
Dibromofluoromethane (Surr)	100		70 - 130					04/03/18 18:26	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium, Dissolved	30000		500	100	ug/L		04/04/18 10:57	04/05/18 19:42	1
Chromium, Dissolved	ND		5.0	1.0	ug/L		04/04/18 10:57	04/05/18 19:42	1
Copper, Dissolved	6.4 J		10	1.6	ug/L		04/04/18 10:57	04/05/18 19:42	1
Magnesium, Dissolved	2500		200	43	ug/L		04/04/18 10:57	04/05/18 19:42	1
Potassium, Dissolved	3400 B		500	100	ug/L		04/04/18 10:57	04/05/18 19:42	1
Sodium, Dissolved	37000		1000	320	ug/L		04/04/18 10:57	04/05/18 19:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			04/03/18 08:47	1

TestAmerica Buffalo

Surrogate Summary

Client: Honeywell International Inc

TestAmerica Job ID: 480-133458-1

Project/Site: April 2018 Quarterly Surface Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (70-130)	BFB (70-130)	TOL (70-130)	DBFM (70-130)				
480-133458-1	CO40218-CSW5	98	103	102	100				
480-133458-2	CO40218-CSW4	96	109	104	98				
480-133458-3	CO40218-CSW3A	92	109	103	99				
480-133458-4	CO40218-CSW3	93	109	103	97				
480-133458-5	CO40218-CSW3DUP	97	106	101	99				
480-133458-6	CO40218-CSW2	95	109	104	100				
LCS 480-406894/5	Lab Control Sample	93	106	102	88				
LCSD 480-406894/6	Lab Control Sample Dup	90	107	102	88				
MB 480-406894/8	Method Blank	95	106	103	98				

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

QC Sample Results

Client: Honeywell International Inc

Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-406894/8

Matrix: Water

Analysis Batch: 406894

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/03/18 11:29	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/03/18 11:29	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/03/18 11:29	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/03/18 11:29	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/03/18 11:29	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/03/18 11:29	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/03/18 11:29	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/03/18 11:29	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/03/18 11:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/03/18 11:29	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/03/18 11:29	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/03/18 11:29	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/03/18 11:29	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/03/18 11:29	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/03/18 11:29	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/03/18 11:29	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/03/18 11:29	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/03/18 11:29	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/03/18 11:29	1
1,4-Dioxane	ND		50	9.3	ug/L			04/03/18 11:29	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/03/18 11:29	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/03/18 11:29	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/03/18 11:29	1
2-Hexanone	ND		10	1.2	ug/L			04/03/18 11:29	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/03/18 11:29	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/03/18 11:29	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/03/18 11:29	1
Acetone	ND		50	3.0	ug/L			04/03/18 11:29	1
Benzene	ND		1.0	0.41	ug/L			04/03/18 11:29	1
Bromobenzene	ND		1.0	0.80	ug/L			04/03/18 11:29	1
Bromoform	ND		1.0	0.26	ug/L			04/03/18 11:29	1
Bromomethane	ND		2.0	0.69	ug/L			04/03/18 11:29	1
Carbon disulfide	ND		10	0.19	ug/L			04/03/18 11:29	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/03/18 11:29	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/03/18 11:29	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/03/18 11:29	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/03/18 11:29	1
Chloroethane	ND		2.0	0.32	ug/L			04/03/18 11:29	1
Chloroform	ND		1.0	0.34	ug/L			04/03/18 11:29	1
Chloromethane	ND		2.0	0.35	ug/L			04/03/18 11:29	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/03/18 11:29	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/03/18 11:29	1
Dibromomethane	ND		1.0	0.41	ug/L			04/03/18 11:29	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/03/18 11:29	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/03/18 11:29	1
Ethyl ether	ND		1.0	0.72	ug/L			04/03/18 11:29	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/03/18 11:29	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/03/18 11:29	1

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-406894/8

Matrix: Water

Analysis Batch: 406894

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	ND	ND									
Hexachlorobutadiene	ND	ND			0.40	0.28	ug/L			04/03/18 11:29	1
Isopropyl ether	ND	ND			10	0.59	ug/L			04/03/18 11:29	1
Isopropylbenzene	ND	ND			1.0	0.79	ug/L			04/03/18 11:29	1
Methyl tert-butyl ether	ND	ND			1.0	0.16	ug/L			04/03/18 11:29	1
Methylene Chloride	ND	ND			1.0	0.44	ug/L			04/03/18 11:29	1
m-Xylene & p-Xylene	ND	ND			2.0	0.66	ug/L			04/03/18 11:29	1
Naphthalene	ND	ND			5.0	0.43	ug/L			04/03/18 11:29	1
n-Butylbenzene	ND	ND			1.0	0.64	ug/L			04/03/18 11:29	1
N-Propylbenzene	ND	ND			1.0	0.69	ug/L			04/03/18 11:29	1
o-Xylene	ND	ND			1.0	0.76	ug/L			04/03/18 11:29	1
sec-Butylbenzene	ND	ND			1.0	0.75	ug/L			04/03/18 11:29	1
Styrene	ND	ND			1.0	0.73	ug/L			04/03/18 11:29	1
Tert-amyl methyl ether	ND	ND			5.0	0.27	ug/L			04/03/18 11:29	1
Tert-butyl ethyl ether	ND	ND			5.0	0.29	ug/L			04/03/18 11:29	1
tert-Butylbenzene	ND	ND			1.0	0.81	ug/L			04/03/18 11:29	1
Tetrachloroethene	ND	ND			1.0	0.36	ug/L			04/03/18 11:29	1
Tetrahydrofuran	ND	ND			10	1.3	ug/L			04/03/18 11:29	1
Toluene	ND	ND			1.0	0.51	ug/L			04/03/18 11:29	1
trans-1,2-Dichloroethene	ND	ND			1.0	0.90	ug/L			04/03/18 11:29	1
trans-1,3-Dichloropropene	ND	ND			0.40	0.37	ug/L			04/03/18 11:29	1
Trichloroethene	ND	ND			1.0	0.46	ug/L			04/03/18 11:29	1
Trichlorofluoromethane	ND	ND			1.0	0.88	ug/L			04/03/18 11:29	1
Vinyl chloride	ND	ND			1.0	0.90	ug/L			04/03/18 11:29	1

MB MB

Surrogate	%Recovery	MB	MB	Limits	Prepared	Analyzed	Dil Fac
		Qualifer	Limits				
1,2-Dichloroethane-d4 (Surr)	95			70 - 130		04/03/18 11:29	1
4-Bromofluorobenzene (Surr)	106			70 - 130		04/03/18 11:29	1
Toluene-d8 (Surr)	103			70 - 130		04/03/18 11:29	1
Dibromofluoromethane (Surr)	98			70 - 130		04/03/18 11:29	1

Lab Sample ID: LCS 480-406894/5

Matrix: Water

Analysis Batch: 406894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MB	MB	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier	Unit	D				
1,1,1,2-Tetrachloroethane	25.0	25.1		ug/L		100		70 - 130	
1,1,1-Trichloroethane	25.0	22.0		ug/L		88		70 - 130	
1,1,2,2-Tetrachloroethane	25.0	22.7		ug/L		91		70 - 130	
1,1,2-Trichloroethane	25.0	23.1		ug/L		93		70 - 130	
1,1-Dichloroethane	25.0	22.4		ug/L		90		70 - 130	
1,1-Dichloroethene	25.0	19.6		ug/L		78		70 - 130	
1,1-Dichloropropene	25.0	21.9		ug/L		88		70 - 130	
1,2,3-Trichlorobenzene	25.0	23.7		ug/L		95		70 - 130	
1,2,3-Trichloropropane	25.0	21.8		ug/L		87		70 - 130	
1,2,4-Trichlorobenzene	25.0	24.9		ug/L		100		70 - 130	
1,2,4-Trimethylbenzene	25.0	24.5		ug/L		98		70 - 130	
1,2-Dibromo-3-Chloropropane	25.0	20.6		ug/L		83		70 - 130	
1,2-Dichlorobenzene	25.0	24.4		ug/L		98		70 - 130	

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
 Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-406894/5

Matrix: Water

Analysis Batch: 406894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec.
		Result	Qualifier				
1,2-Dichloroethane	25.0	21.7		ug/L		87	70 - 130
1,2-Dichloropropane	25.0	22.1		ug/L		88	70 - 130
1,3,5-Trimethylbenzene	25.0	24.7		ug/L		99	70 - 130
1,3-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130
1,3-Dichloropropane	25.0	24.1		ug/L		96	70 - 130
1,4-Dichlorobenzene	25.0	24.4		ug/L		97	70 - 130
1,4-Dioxane	500	362		ug/L		72	70 - 130
2,2-Dichloropropane	25.0	21.8		ug/L		87	70 - 130
2-Butanone (MEK)	125	196	*	ug/L		157	70 - 130
2-Chlorotoluene	25.0	25.1		ug/L		100	70 - 130
2-Hexanone	125	172	*	ug/L		137	70 - 130
4-Chlorotoluene	25.0	26.3		ug/L		105	70 - 130
4-Isopropyltoluene	25.0	25.8		ug/L		103	70 - 130
4-Methyl-2-pentanone (MIBK)	125	116		ug/L		93	70 - 130
Acetone	125	126		ug/L		100	70 - 130
Benzene	25.0	21.2		ug/L		85	70 - 130
Bromobenzene	25.0	24.0		ug/L		96	70 - 130
Bromoform	25.0	24.4		ug/L		98	70 - 130
Bromomethane	25.0	21.0		ug/L		84	70 - 130
Carbon disulfide	25.0	20.8		ug/L		83	70 - 130
Carbon tetrachloride	25.0	22.5		ug/L		90	70 - 130
Chlorobenzene	25.0	24.6		ug/L		98	70 - 130
Chlorobromomethane	25.0	21.7		ug/L		87	70 - 130
Chlorodibromomethane	25.0	24.1		ug/L		97	70 - 130
Chloroethane	25.0	21.7		ug/L		87	70 - 130
Chloroform	25.0	21.4		ug/L		85	70 - 130
Chloromethane	25.0	22.8		ug/L		91	70 - 130
cis-1,2-Dichloroethene	25.0	21.2		ug/L		85	70 - 130
cis-1,3-Dichloropropene	25.0	21.7		ug/L		87	70 - 130
Dibromomethane	25.0	21.3		ug/L		85	70 - 130
Dichlorobromomethane	25.0	22.1		ug/L		89	70 - 130
Dichlorodifluoromethane	25.0	19.5		ug/L		78	70 - 130
Ethyl ether	25.0	20.4		ug/L		81	70 - 130
Ethylbenzene	25.0	24.2		ug/L		97	70 - 130
Ethylene Dibromide	25.0	24.3		ug/L		97	70 - 130
Hexachlorobutadiene	25.0	25.1		ug/L		101	70 - 130
Isopropyl ether	25.0	26.7		ug/L		107	70 - 130
Isopropylbenzene	25.0	24.7		ug/L		99	70 - 130
Methyl tert-butyl ether	25.0	20.3		ug/L		81	70 - 130
Methylene Chloride	25.0	19.6		ug/L		78	70 - 130
m-Xylene & p-Xylene	25.0	24.6		ug/L		98	70 - 130
Naphthalene	25.0	22.9		ug/L		92	70 - 130
n-Butylbenzene	25.0	25.2		ug/L		101	70 - 130
N-Propylbenzene	25.0	25.0		ug/L		100	70 - 130
o-Xylene	25.0	24.7		ug/L		99	70 - 130
sec-Butylbenzene	25.0	24.9		ug/L		100	70 - 130
Styrene	25.0	24.6		ug/L		98	70 - 130
Tert-amyl methyl ether	25.0	24.8		ug/L		99	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-406894/5

Matrix: Water

Analysis Batch: 406894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS			Unit	D	%Rec	Limits	%Rec.
		Result	Qualifier	LCS					
Tert-butyl ethyl ether	25.0	25.2		ug/L		101	70 - 130		
tert-Butylbenzene	25.0	25.2		ug/L		101	70 - 130		
Tetrachloroethene	25.0	27.3		ug/L		109	70 - 130		
Tetrahydrofuran	50.0	38.3		ug/L		77	70 - 130		
Toluene	25.0	24.2		ug/L		97	70 - 130		
trans-1,2-Dichloroethene	25.0	20.7		ug/L		83	70 - 130		
trans-1,3-Dichloropropene	25.0	25.1		ug/L		100	70 - 130		
Trichloroethene	25.0	21.7		ug/L		87	70 - 130		
Trichlorofluoromethane	25.0	22.0		ug/L		88	70 - 130		
Vinyl chloride	25.0	23.1		ug/L		92	70 - 130		
<hr/>									
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	93		70 - 130						
4-Bromofluorobenzene (Surr)	106		70 - 130						
Toluene-d8 (Surr)	102		70 - 130						
Dibromofluoromethane (Surr)	88		70 - 130						

Lab Sample ID: LCSD 480-406894/6

Matrix: Water

Analysis Batch: 406894

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD			Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier	LCSD						
1,1,1,2-Tetrachloroethane	25.0	25.7		ug/L		103	70 - 130		3	20
1,1,1-Trichloroethane	25.0	23.4		ug/L		93	70 - 130		6	20
1,1,2,2-Tetrachloroethane	25.0	23.5		ug/L		94	70 - 130		4	20
1,1,2-Trichloroethane	25.0	24.2		ug/L		97	70 - 130		5	20
1,1-Dichloroethane	25.0	23.0		ug/L		92	70 - 130		3	20
1,1-Dichloroethene	25.0	21.3		ug/L		85	70 - 130		8	20
1,1-Dichloropropene	25.0	23.5		ug/L		94	70 - 130		7	20
1,2,3-Trichlorobenzene	25.0	24.7		ug/L		99	70 - 130		5	20
1,2,3-Trichloropropane	25.0	23.1		ug/L		92	70 - 130		6	20
1,2,4-Trichlorobenzene	25.0	26.2		ug/L		105	70 - 130		5	20
1,2,4-Trimethylbenzene	25.0	25.7		ug/L		103	70 - 130		5	20
1,2-Dibromo-3-Chloropropane	25.0	22.1		ug/L		88	70 - 130		7	20
1,2-Dichlorobenzene	25.0	24.9		ug/L		99	70 - 130		2	20
1,2-Dichloroethane	25.0	21.6		ug/L		86	70 - 130		1	20
1,2-Dichloropropane	25.0	22.1		ug/L		88	70 - 130		0	20
1,3,5-Trimethylbenzene	25.0	25.7		ug/L		103	70 - 130		4	20
1,3-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130		5	20
1,3-Dichloropropane	25.0	24.5		ug/L		98	70 - 130		2	20
1,4-Dichlorobenzene	25.0	25.3		ug/L		101	70 - 130		4	20
1,4-Dioxane	500	447 *		ug/L		89	70 - 130		21	20
2,2-Dichloropropane	25.0	22.5		ug/L		90	70 - 130		4	20
2-Butanone (MEK)	125	193 *		ug/L		154	70 - 130		2	20
2-Chlorotoluene	25.0	26.9		ug/L		108	70 - 130		7	20
2-Hexanone	125	173 *		ug/L		139	70 - 130		1	20
4-Chlorotoluene	25.0	27.0		ug/L		108	70 - 130		3	20
4-Isopropyltoluene	25.0	27.5		ug/L		110	70 - 130		6	20

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc

Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-406894/6

Matrix: Water

Analysis Batch: 406894

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD
	Added	Result	Qualifier						
4-Methyl-2-pentanone (MIBK)	125	117		ug/L	94	70 - 130	1	20	
Acetone	125	126		ug/L	100	70 - 130	0	20	
Benzene	25.0	22.1		ug/L	88	70 - 130	4	20	
Bromobenzene	25.0	25.1		ug/L	100	70 - 130	4	20	
Bromoform	25.0	25.1		ug/L	101	70 - 130	3	20	
Bromomethane	25.0	22.2		ug/L	89	70 - 130	5	20	
Carbon disulfide	25.0	22.7		ug/L	91	70 - 130	9	20	
Carbon tetrachloride	25.0	24.2		ug/L	97	70 - 130	7	20	
Chlorobenzene	25.0	26.1		ug/L	104	70 - 130	6	20	
Chlorobromomethane	25.0	21.5		ug/L	86	70 - 130	1	20	
Chlorodibromomethane	25.0	24.8		ug/L	99	70 - 130	3	20	
Chloroethane	25.0	23.0		ug/L	92	70 - 130	6	20	
Chloroform	25.0	21.7		ug/L	87	70 - 130	2	20	
Chloromethane	25.0	24.3		ug/L	97	70 - 130	6	20	
cis-1,2-Dichloroethene	25.0	22.0		ug/L	88	70 - 130	4	20	
cis-1,3-Dichloropropene	25.0	22.0		ug/L	88	70 - 130	1	20	
Dibromomethane	25.0	21.2		ug/L	85	70 - 130	0	20	
Dichlorobromomethane	25.0	22.4		ug/L	90	70 - 130	1	20	
Dichlorodifluoromethane	25.0	21.5		ug/L	86	70 - 130	10	20	
Ethyl ether	25.0	20.7		ug/L	83	70 - 130	2	20	
Ethylbenzene	25.0	25.8		ug/L	103	70 - 130	7	20	
Ethylene Dibromide	25.0	24.6		ug/L	98	70 - 130	1	20	
Hexachlorobutadiene	25.0	27.5		ug/L	110	70 - 130	9	20	
Isopropyl ether	25.0	26.8		ug/L	107	70 - 130	1	20	
Isopropylbenzene	25.0	26.5		ug/L	106	70 - 130	7	20	
Methyl tert-butyl ether	25.0	20.2		ug/L	81	70 - 130	0	20	
Methylene Chloride	25.0	19.9		ug/L	80	70 - 130	2	20	
m-Xylene & p-Xylene	25.0	26.2		ug/L	105	70 - 130	7	20	
Naphthalene	25.0	23.6		ug/L	94	70 - 130	3	20	
n-Butylbenzene	25.0	26.7		ug/L	107	70 - 130	6	20	
N-Propylbenzene	25.0	26.4		ug/L	105	70 - 130	5	20	
o-Xylene	25.0	25.9		ug/L	103	70 - 130	4	20	
sec-Butylbenzene	25.0	26.8		ug/L	107	70 - 130	7	20	
Styrene	25.0	25.7		ug/L	103	70 - 130	4	20	
Tert-amyl methyl ether	25.0	24.7		ug/L	99	70 - 130	0	20	
Tert-butyl ethyl ether	25.0	25.4		ug/L	102	70 - 130	1	20	
tert-Butylbenzene	25.0	26.6		ug/L	107	70 - 130	6	20	
Tetrachloroethene	25.0	29.4		ug/L	118	70 - 130	7	20	
Tetrahydrofuran	50.0	37.7		ug/L	75	70 - 130	2	20	
Toluene	25.0	25.7		ug/L	103	70 - 130	6	20	
trans-1,2-Dichloroethene	25.0	21.8		ug/L	87	70 - 130	5	20	
trans-1,3-Dichloropropene	25.0	25.7		ug/L	103	70 - 130	2	20	
Trichloroethene	25.0	22.9		ug/L	92	70 - 130	5	20	
Trichlorofluoromethane	25.0	23.7		ug/L	95	70 - 130	7	20	
Vinyl chloride	25.0	25.2		ug/L	101	70 - 130	9	20	

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)		90			70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-406894/6

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 406894

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
Toluene-d8 (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	88		70 - 130

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-406931/1-B

Client Sample ID: Method Blank

Matrix: Water

Analysis Batch: 408018

Prep Type: Dissolved
Prep Batch: 407147

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Calcium, Dissolved	ND		500		100	ug/L		04/04/18 10:57	04/05/18 18:46		1
Chromium, Dissolved	ND		5.0		1.0	ug/L		04/04/18 10:57	04/05/18 18:46		1
Copper, Dissolved	ND		10		1.6	ug/L		04/04/18 10:57	04/05/18 18:46		1
Magnesium, Dissolved	ND		200		43	ug/L		04/04/18 10:57	04/05/18 18:46		1
Potassium, Dissolved	153	J	500		100	ug/L		04/04/18 10:57	04/05/18 18:46		1
Sodium, Dissolved	ND		1000		320	ug/L		04/04/18 10:57	04/05/18 18:46		1

Lab Sample ID: LCS 480-406931/2-B

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 407147

Matrix: Water

Analysis Batch: 408018

Analyte	Spike Added	LCS			Unit	D	%Rec	Limits	%Rec.
		Result	Qualifier	Unit					
Calcium, Dissolved	10000	10000		ug/L		100	80 - 120		
Chromium, Dissolved	200	205		ug/L		102	80 - 120		
Copper, Dissolved	200	196		ug/L		98	80 - 120		
Magnesium, Dissolved	10000	10400		ug/L		104	80 - 120		
Potassium, Dissolved	10000	9930		ug/L		99	80 - 120		
Sodium, Dissolved	10000	9820		ug/L		98	80 - 120		

Lab Sample ID: LCSD 480-406931/3-B

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved
Prep Batch: 407147

Matrix: Water

Analysis Batch: 408018

Analyte	Spike Added	LCSD			Unit	D	%Rec	Limits	%Rec.	RPD	Limit
		Result	Qualifier	Unit							
Calcium, Dissolved	10000	9970		ug/L		100	80 - 120		0	20	
Chromium, Dissolved	200	207		ug/L		104	80 - 120		1	20	
Copper, Dissolved	200	196		ug/L		98	80 - 120		0	20	
Magnesium, Dissolved	10000	10400		ug/L		104	80 - 120		0	20	
Potassium, Dissolved	10000	9820		ug/L		98	80 - 120		1	20	
Sodium, Dissolved	10000	9880		ug/L		99	80 - 120		1	20	

Lab Sample ID: 480-133458-4 MS

Client Sample ID: CO40218-CSW3
Prep Type: Dissolved
Prep Batch: 407147

Matrix: Water

Analysis Batch: 408018

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits	%Rec.
	Result	Qualifier	Added	Result	Qualifier					
Calcium, Dissolved	28000		10000	39600		ug/L	111	75 - 125		

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: 480-133458-4 MS

Matrix: Water

Analysis Batch: 408018

Client Sample ID: CO40218-CSW3

Prep Type: Dissolved

Prep Batch: 407147

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits	
	Result	Qualifier	Added	Result	Qualifier					
Chromium, Dissolved	14		200	223		ug/L		105	75 - 125	
Copper, Dissolved	3.4	J	200	202		ug/L		100	75 - 125	
Magnesium, Dissolved	2400		10000	12900		ug/L		105	75 - 125	
Sodium, Dissolved	34000		10000	45100		ug/L		113	75 - 125	

Lab Sample ID: 480-133458-4 MS

Matrix: Water

Analysis Batch: 407788

Client Sample ID: CO40218-CSW3

Prep Type: Dissolved

Prep Batch: 407147

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits	
	Result	Qualifier	Added	Result	Qualifier					
Potassium, Dissolved	3200	B	10000	13100		ug/L		99	75 - 125	

Lab Sample ID: 480-133458-4 MSD

Matrix: Water

Analysis Batch: 408018

Client Sample ID: CO40218-CSW3

Prep Type: Dissolved

Prep Batch: 407147

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Calcium, Dissolved	28000		10000	39300		ug/L		109	75 - 125	1	20
Chromium, Dissolved	14		200	218		ug/L		102	75 - 125	2	20
Copper, Dissolved	3.4	J	200	201		ug/L		99	75 - 125	1	20
Magnesium, Dissolved	2400		10000	12700		ug/L		103	75 - 125	1	20
Sodium, Dissolved	34000		10000	44800		ug/L		110	75 - 125	1	20

Lab Sample ID: 480-133458-4 MSD

Matrix: Water

Analysis Batch: 407788

Client Sample ID: CO40218-CSW3

Prep Type: Dissolved

Prep Batch: 407147

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Potassium, Dissolved	3200	B	10000	13100		ug/L		99	75 - 125	0	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 480-406944/3

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 406944

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chromium, hexavalent	ND		0.010	0.0050	mg/L			04/03/18 08:47	1

Lab Sample ID: LCS 480-406944/4

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 406944

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Chromium, hexavalent	0.200	0.198		mg/L		99	80 - 120

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCSD 480-406944/5

Matrix: Water

Analysis Batch: 406944

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD Limit
Chromium, hexavalent	0.200	0.200		mg/L		100	80 - 120	1	20

Lab Sample ID: 480-133458-3 MS

Matrix: Water

Analysis Batch: 406944

Client Sample ID: CO40218-CSW3A

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.
Chromium, hexavalent	0.018		0.200	0.223		mg/L		103	75 - 125

Lab Sample ID: 480-133458-4 MS

Matrix: Water

Analysis Batch: 406944

Client Sample ID: CO40218-CSW3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.
Chromium, hexavalent	0.016		0.200	0.222		mg/L		103	75 - 125

Lab Sample ID: 480-133458-1 DU

Matrix: Water

Analysis Batch: 406944

Client Sample ID: CO40218-CSW5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D		RPD	RPD Limit
Chromium, hexavalent	0.014			0.0144		mg/L			0	20

Lab Sample ID: 480-133458-6 DU

Matrix: Water

Analysis Batch: 406944

Client Sample ID: CO40218-CSW2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D		RPD	RPD Limit
Chromium, hexavalent	ND			ND		mg/L			NC	20

QC Association Summary

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

GC/MS VOA

Analysis Batch: 406894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133458-1	CO40218-CSW5	Total/NA	Water	8260C	
480-133458-2	CO40218-CSW4	Total/NA	Water	8260C	
480-133458-3	CO40218-CSW3A	Total/NA	Water	8260C	
480-133458-4	CO40218-CSW3	Total/NA	Water	8260C	
480-133458-5	CO40218-CSW3DUP	Total/NA	Water	8260C	
480-133458-6	CO40218-CSW2	Total/NA	Water	8260C	
MB 480-406894/8	Method Blank	Total/NA	Water	8260C	
LCS 480-406894/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-406894/6	Lab Control Sample Dup	Total/NA	Water	8260C	

Metals

Filtration Batch: 406931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133458-1	CO40218-CSW5	Dissolved	Water	FILTRATION	
480-133458-2	CO40218-CSW4	Dissolved	Water	FILTRATION	
480-133458-3	CO40218-CSW3A	Dissolved	Water	FILTRATION	
480-133458-4	CO40218-CSW3	Dissolved	Water	FILTRATION	
480-133458-5	CO40218-CSW3DUP	Dissolved	Water	FILTRATION	
480-133458-6	CO40218-CSW2	Dissolved	Water	FILTRATION	
MB 480-406931/1-B	Method Blank	Dissolved	Water	FILTRATION	
LCS 480-406931/2-B	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 480-406931/3-B	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
480-133458-4 MS	CO40218-CSW3	Dissolved	Water	FILTRATION	
480-133458-4 MSD	CO40218-CSW3	Dissolved	Water	FILTRATION	

Prep Batch: 407147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133458-1	CO40218-CSW5	Dissolved	Water	3005A	406931
480-133458-2	CO40218-CSW4	Dissolved	Water	3005A	406931
480-133458-3	CO40218-CSW3A	Dissolved	Water	3005A	406931
480-133458-4	CO40218-CSW3	Dissolved	Water	3005A	406931
480-133458-5	CO40218-CSW3DUP	Dissolved	Water	3005A	406931
480-133458-6	CO40218-CSW2	Dissolved	Water	3005A	406931
MB 480-406931/1-B	Method Blank	Dissolved	Water	3005A	406931
LCS 480-406931/2-B	Lab Control Sample	Dissolved	Water	3005A	406931
LCSD 480-406931/3-B	Lab Control Sample Dup	Dissolved	Water	3005A	406931
480-133458-4 MS	CO40218-CSW3	Dissolved	Water	3005A	406931
480-133458-4 MSD	CO40218-CSW3	Dissolved	Water	3005A	406931

Analysis Batch: 407788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133458-1	CO40218-CSW5	Dissolved	Water	6010	407147
480-133458-2	CO40218-CSW4	Dissolved	Water	6010	407147
480-133458-4	CO40218-CSW3	Dissolved	Water	6010	407147
480-133458-4 MS	CO40218-CSW3	Dissolved	Water	6010	407147
480-133458-4 MSD	CO40218-CSW3	Dissolved	Water	6010	407147

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QC Association Summary

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Metals (Continued)

Analysis Batch: 408018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133458-1	CO40218-CSW5	Dissolved	Water	6010	407147
480-133458-2	CO40218-CSW4	Dissolved	Water	6010	407147
480-133458-3	CO40218-CSW3A	Dissolved	Water	6010	407147
480-133458-4	CO40218-CSW3	Dissolved	Water	6010	407147
480-133458-5	CO40218-CSW3DUP	Dissolved	Water	6010	407147
480-133458-6	CO40218-CSW2	Dissolved	Water	6010	407147
MB 480-406931/1-B	Method Blank	Dissolved	Water	6010	407147
LCS 480-406931/2-B	Lab Control Sample	Dissolved	Water	6010	407147
LCSD 480-406931/3-B	Lab Control Sample Dup	Dissolved	Water	6010	407147
480-133458-4 MS	CO40218-CSW3	Dissolved	Water	6010	407147
480-133458-4 MSD	CO40218-CSW3	Dissolved	Water	6010	407147

General Chemistry

Analysis Batch: 406944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133458-1	CO40218-CSW5	Total/NA	Water	7196A	12
480-133458-2	CO40218-CSW4	Total/NA	Water	7196A	13
480-133458-3	CO40218-CSW3A	Total/NA	Water	7196A	14
480-133458-4	CO40218-CSW3	Total/NA	Water	7196A	15
480-133458-5	CO40218-CSW3DUP	Total/NA	Water	7196A	
480-133458-6	CO40218-CSW2	Total/NA	Water	7196A	
MB 480-406944/3	Method Blank	Total/NA	Water	7196A	
LCS 480-406944/4	Lab Control Sample	Total/NA	Water	7196A	
LCSD 480-406944/5	Lab Control Sample Dup	Total/NA	Water	7196A	
480-133458-3 MS	CO40218-CSW3A	Total/NA	Water	7196A	
480-133458-4 MS	CO40218-CSW3	Total/NA	Water	7196A	
480-133458-1 DU	CO40218-CSW5	Total/NA	Water	7196A	
480-133458-6 DU	CO40218-CSW2	Total/NA	Water	7196A	

Lab Chronicle

Client: Honeywell International Inc
 Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Client Sample ID: CO40218-CSW5

Lab Sample ID: 480-133458-1

Matrix: Water

Date Collected: 04/02/18 09:30

Date Received: 04/03/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	406894	04/03/18 16:19	KMN	TAL BUF
Dissolved	Filtration	FILTRATION			406931	04/03/18 09:42	JAK	TAL BUF
Dissolved	Prep	3005A			407147	04/04/18 10:57	JAK	TAL BUF
Dissolved	Analysis	6010		1	408018	04/05/18 18:57	LMH	TAL BUF
Dissolved	Filtration	FILTRATION			406931	04/03/18 09:42	JAK	TAL BUF
Dissolved	Prep	3005A			407147	04/04/18 10:57	JAK	TAL BUF
Dissolved	Analysis	6010		1	407788	04/06/18 12:06	LMH	TAL BUF
Total/NA	Analysis	7196A		1	406944	04/03/18 08:47	BEV	TAL BUF

Client Sample ID: CO40218-CSW4

Lab Sample ID: 480-133458-2

Matrix: Water

Date Collected: 04/02/18 09:50

Date Received: 04/03/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	406894	04/03/18 16:44	KMN	TAL BUF
Dissolved	Filtration	FILTRATION			406931	04/03/18 09:42	JAK	TAL BUF
Dissolved	Prep	3005A			407147	04/04/18 10:57	JAK	TAL BUF
Dissolved	Analysis	6010		1	408018	04/05/18 19:01	LMH	TAL BUF
Dissolved	Filtration	FILTRATION			406931	04/03/18 09:42	JAK	TAL BUF
Dissolved	Prep	3005A			407147	04/04/18 10:57	JAK	TAL BUF
Dissolved	Analysis	6010		1	407788	04/06/18 12:10	LMH	TAL BUF
Total/NA	Analysis	7196A		1	406944	04/03/18 08:47	BEV	TAL BUF

Client Sample ID: CO40218-CSW3A

Lab Sample ID: 480-133458-3

Matrix: Water

Date Collected: 04/02/18 10:15

Date Received: 04/03/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	406894	04/03/18 17:10	KMN	TAL BUF
Dissolved	Filtration	FILTRATION			406931	04/03/18 09:42	JAK	TAL BUF
Dissolved	Prep	3005A			407147	04/04/18 10:57	JAK	TAL BUF
Dissolved	Analysis	6010		1	408018	04/05/18 19:34	LMH	TAL BUF
Total/NA	Analysis	7196A		1	406944	04/03/18 08:47	BEV	TAL BUF

Client Sample ID: CO40218-CSW3

Lab Sample ID: 480-133458-4

Matrix: Water

Date Collected: 04/02/18 10:30

Date Received: 04/03/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	406894	04/03/18 17:35	KMN	TAL BUF
Dissolved	Filtration	FILTRATION			406931	04/03/18 09:42	JAK	TAL BUF
Dissolved	Prep	3005A			407147	04/04/18 10:57	JAK	TAL BUF
Dissolved	Analysis	6010		1	408018	04/05/18 19:04	LMH	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Client Sample ID: CO40218-CSW3

Date Collected: 04/02/18 10:30

Date Received: 04/03/18 01:00

Lab Sample ID: 480-133458-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			406931	04/03/18 09:42	JAK	TAL BUF
Dissolved	Prep	3005A			407147	04/04/18 10:57	JAK	TAL BUF
Dissolved	Analysis	6010		1	407788	04/06/18 12:14	LMH	TAL BUF
Total/NA	Analysis	7196A		1	406944	04/03/18 08:47	BEV	TAL BUF

Client Sample ID: CO40218-CSW3DUP

Date Collected: 04/02/18 10:30

Date Received: 04/03/18 01:00

Lab Sample ID: 480-133458-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	406894	04/03/18 18:01	KMN	TAL BUF
Dissolved	Filtration	FILTRATION			406931	04/03/18 09:42	JAK	TAL BUF
Dissolved	Prep	3005A			407147	04/04/18 10:57	JAK	TAL BUF
Dissolved	Analysis	6010		1	408018	04/05/18 19:38	LMH	TAL BUF
Total/NA	Analysis	7196A		1	406944	04/03/18 08:47	BEV	TAL BUF

Client Sample ID: CO40218-CSW2

Date Collected: 04/02/18 10:45

Date Received: 04/03/18 01:00

Lab Sample ID: 480-133458-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	406894	04/03/18 18:26	KMN	TAL BUF
Dissolved	Filtration	FILTRATION			406931	04/03/18 09:42	JAK	TAL BUF
Dissolved	Prep	3005A			407147	04/04/18 10:57	JAK	TAL BUF
Dissolved	Analysis	6010		1	408018	04/05/18 19:42	LMH	TAL BUF
Total/NA	Analysis	7196A		1	406944	04/03/18 08:47	BEV	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Honeywell International Inc

Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Massachusetts	State Program	1	M-NY044	06-30-18
The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:				
Analysis Method	Prep Method	Matrix	Analyte	
6010	3005A	Water	Calcium, Dissolved	
6010	3005A	Water	Chromium, Dissolved	
6010	3005A	Water	Copper, Dissolved	
6010	3005A	Water	Magnesium, Dissolved	
6010	3005A	Water	Potassium, Dissolved	
6010	3005A	Water	Sodium, Dissolved	
7196A		Water	Chromium, hexavalent	
8260C		Water	1,1,1,2-Tetrachloroethane	
8260C		Water	1,1,1-Trichloroethane	
8260C		Water	1,1,2,2-Tetrachloroethane	
8260C		Water	1,1,2-Trichloroethane	
8260C		Water	1,1-Dichloroethane	
8260C		Water	1,1-Dichloroethene	
8260C		Water	1,1-Dichloropropene	
8260C		Water	1,2,3-Trichlorobenzene	
8260C		Water	1,2,3-Trichloropropane	
8260C		Water	1,2,4-Trichlorobenzene	
8260C		Water	1,2,4-Trimethylbenzene	
8260C		Water	1,2-Dibromo-3-Chloropropane	
8260C		Water	1,2-Dichlorobenzene	
8260C		Water	1,2-Dichloroethane	
8260C		Water	1,2-Dichloropropane	
8260C		Water	1,3,5-Trimethylbenzene	
8260C		Water	1,3-Dichlorobenzene	
8260C		Water	1,3-Dichloropropane	
8260C		Water	1,4-Dichlorobenzene	
8260C		Water	1,4-Dioxane	
8260C		Water	2,2-Dichloropropane	
8260C		Water	2-Butanone (MEK)	
8260C		Water	2-Chlorotoluene	
8260C		Water	2-Hexanone	
8260C		Water	4-Chlorotoluene	
8260C		Water	4-Isopropyltoluene	
8260C		Water	4-Methyl-2-pentanone (MIBK)	
8260C		Water	Acetone	
8260C		Water	Benzene	
8260C		Water	Bromobenzene	
8260C		Water	Bromoform	
8260C		Water	Bromomethane	
8260C		Water	Carbon disulfide	
8260C		Water	Carbon tetrachloride	
8260C		Water	Chlorobenzene	
8260C		Water	Chlorobromomethane	
8260C		Water	Chlorodibromomethane	
8260C		Water	Chloroethane	
8260C		Water	Chloroform	

TestAmerica Buffalo

Accreditation/Certification Summary

Client: Honeywell International Inc

Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Laboratory: TestAmerica Buffalo (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Massachusetts	State Program	1	M-NY044	06-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	Chloromethane
8260C		Water	cis-1,2-Dichloroethene
8260C		Water	cis-1,3-Dichloropropene
8260C		Water	Dibromomethane
8260C		Water	Dichlorobromomethane
8260C		Water	Dichlorodifluoromethane
8260C		Water	Ethyl ether
8260C		Water	Ethylbenzene
8260C		Water	Ethylene Dibromide
8260C		Water	Hexachlorobutadiene
8260C		Water	Isopropyl ether
8260C		Water	Isopropylbenzene
8260C		Water	Methyl tert-butyl ether
8260C		Water	Methylene Chloride
8260C		Water	m-Xylene & p-Xylene
8260C		Water	Naphthalene
8260C		Water	n-Butylbenzene
8260C		Water	N-Propylbenzene
8260C		Water	o-Xylene
8260C		Water	sec-Butylbenzene
8260C		Water	Styrene
8260C		Water	Tert-amyl methyl ether
8260C		Water	Tert-butyl ethyl ether
8260C		Water	tert-Butylbenzene
8260C		Water	Tetrachloroethene
8260C		Water	Tetrahydrofuran
8260C		Water	Toluene
8260C		Water	trans-1,2-Dichloroethene
8260C		Water	trans-1,3-Dichloropropene
8260C		Water	Trichloroethene
8260C		Water	Trichlorofluoromethane
8260C		Water	Vinyl chloride

Method Summary

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
6010	Metals (ICP)	SW846	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL BUF

Protocol References:

MA DEP = Massachusetts Department Of Environmental Protection

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Honeywell International Inc
Project/Site: April 2018 Quarterly Surface Water

TestAmerica Job ID: 480-133458-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-133458-1	CO40218-CSW5	Water	04/02/18 09:30	04/03/18 01:00
480-133458-2	CO40218-CSW4	Water	04/02/18 09:50	04/03/18 01:00
480-133458-3	CO40218-CSW3A	Water	04/02/18 10:15	04/03/18 01:00
480-133458-4	CO40218-CSW3	Water	04/02/18 10:30	04/03/18 01:00
480-133458-5	CO40218-CSW3DUP	Water	04/02/18 10:30	04/03/18 01:00
480-133458-6	CO40218-CSW2	Water	04/02/18 10:45	04/03/18 01:00

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Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 480-133458-1

Login Number: 133458

List Source: TestAmerica Buffalo

List Number: 1

Creator: Williams, Christopher S

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AMEC
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-133840-1

Client Project/Site: Honeywell Conductor lab

For:

Honeywell International Inc

Remediation & Evaluation Services

115 Tabor Road

Morris Plains, New Jersey 07950

Attn: Ms. Maria Kaouris



Authorized for release by:

4/18/2018 12:35:16 PM

Rebecca Jones, Project Management Assistant I

rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II

(716)504-9838

john.schove@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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Case Narrative

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Job ID: 480-133840-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-133840-1

Comments

No additional comments.

Receipt

The samples were received on 4/10/2018 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9° C.

Receipt Exceptions

Method(s) 7196A: The following sample was received outside of holding time: C040918-OSW7 (480-133840-1).

GC/MS VOA

Method(s) 8260C: With the exception of diluted samples, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for Carbon disulfide, Isopropyl ether, Naphthalene, tert-Butyl ethyl ether, tert-Amyl methyl Ether, & Tetrahydrofuran

Method(s) 8260C: The method blank for analytical batch 480-408914 contained Hexachlorobutadiene above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed. The following samples are impacted: C040918-DMWB (480-133840-2), C040918-DMWA (480-133840-3), C040918-CLW8 (480-133840-4) and TB (480-133840-5).

Method(s) 8260C: The continuing calibration verification (CCV) for 1,4-Dioxane, 2-Hexanone, Naphthalene and Dichlorodifluoromethane associated with batch 480-408914 recovered outside the MCP control limit criteria. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. Difficult analytes are allowed to be outside the 20% difference but not over 60% difference. The following samples were affected : C040918-DMWB (480-133840-2), C040918-DMWA (480-133840-3), C040918-CLW8 (480-133840-4) and TB (480-133840-5).

Method(s) 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batch 480-408914 exceeded control limits for the following analyte: 1,4-Dioxane. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following samples were affected : C040918-DMWB (480-133840-2), C040918-DMWA (480-133840-3), C040918-CLW8 (480-133840-4) and TB (480-133840-5).

Method(s) 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batch 480-408914 exceeded control limits for the following analytes: 2-Butanone (MEK) and 2-Hexanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate and n-butyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following samples were affected : C040918-DMWB (480-133840-2), C040918-DMWA (480-133840-3), C040918-CLW8 (480-133840-4) and TB (480-133840-5).

Method(s) 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batch 480-408945 exceeded control limits for the following analyte: 2-Butanone and Tetrahydrofuran. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate and Methacrylonitrile in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following sample was affected : C040918-OSW7 (480-133840-1).

Method(s) 8260C: The laboratory control sample duplicate (LCSD) for batch 480-408945 exceeded control limits for the following analyte: 1,4-Dioxane. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following sample was affected : C040918-OSW7 (480-133840-1).

Method(s) 8260, 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: C040918-DMWB (480-133840-2). Elevated reporting limits (RLs) are provided.

Case Narrative

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Job ID: 480-133840-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010: At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

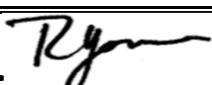
Method(s) 7196A: The following sample was received outside of holding time: C040918-OSW7 (480-133840-1).

Method(s) 7196A: The following sample(s) was received with less than one shift (8 hours) remaining on a test with a holding time of 24 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: C040918-DMWB (480-133840-2), C040918-DMWA (480-133840-3) and C040918-CLW8 (480-133840-4).

Method(s) 7196A: The following samples were diluted to bring the concentration of target analytes within the calibration range: C040918-CLW8 (480-133840-4) and (480-133840-B-4 MS ^5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

MassDEP Analytical Protocol Certification Form

Laboratory Name: TestAmerica Buffalo		Project #: 480-133840-1			
Project Location: Groton		RTN:			
This form provides certifications for the following data set: list Laboratory Sample ID Number(s): 480-133840-1(1-5)					
Matrices: <input checked="" type="checkbox"/> Groundwater/Surface Water <input type="checkbox"/> Soil/Sediment <input type="checkbox"/> Drinking Water <input type="checkbox"/> Air <input type="checkbox"/> Other:					
CAM Protocols (check all that apply below):					
8260 VOC CAM II A <input checked="" type="checkbox"/>	7470/7471 Hg CAM III B	Mass DEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input checked="" type="checkbox"/>	Mass DEP APH CAM IX A <input type="checkbox"/>
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	Mass DEP EPH CAM IV B <input type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>
6010 Metals CAM III A <input checked="" type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9014 Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>	
Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status					
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
E	a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?			<input type="checkbox"/> Yes	<input type="checkbox"/> No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Responses to Questions G, H and I below are required for "Presumptive Certainty" status					
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350					
H	Were all QC performance standards specified in the CAM protocol(s) achieved?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
¹ All negative responses must be addressed in an attached laboratory narrative.					
I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.					
Signature:			Position:	Project Management Assistant	
Printed Name:	Rebecca Jones		Date:	4/18/18 12:31	

Detection Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Client Sample ID: C040918-OSW7

Lab Sample ID: 480-133840-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4.0		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	19		1.0	0.46	ug/L	1		8260C	Total/NA
Chromium	240		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, hexavalent	0.25	H	0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: C040918-DMWB

Lab Sample ID: 480-133840-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.3		1.0	0.29	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	54		1.0	0.90	ug/L	1		8260C	Total/NA
Trichloroethene	86		1.0	0.46	ug/L	1		8260C	Total/NA
Vinyl chloride	14		1.0	0.90	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene - DL	170		4.0	3.2	ug/L	4		8260C	Total/NA
Chromium	1.2	J	5.0	1.0	ug/L	1		6010	Total/NA

Client Sample ID: C040918-DMWA

Lab Sample ID: 480-133840-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.2		1.0	0.29	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	48		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	23		1.0	0.46	ug/L	1		8260C	Total/NA
Vinyl chloride	4.4		1.0	0.90	ug/L	1		8260C	Total/NA

Client Sample ID: C040918-CLW8

Lab Sample ID: 480-133840-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.43	J	1.0	0.29	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	9.2		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	31		1.0	0.46	ug/L	1		8260C	Total/NA
Chromium	520		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, hexavalent	0.49	H	0.050	0.025	mg/L	5		7196A	Total/NA

Client Sample ID: TB

Lab Sample ID: 480-133840-5

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Client Sample ID: C040918-OSW7

Lab Sample ID: 480-133840-1

Matrix: Water

Date Collected: 04/09/18 09:20

Date Received: 04/10/18 10:30

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/16/18 11:43	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/16/18 11:43	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/16/18 11:43	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/16/18 11:43	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/16/18 11:43	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/16/18 11:43	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/16/18 11:43	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/16/18 11:43	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/16/18 11:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/16/18 11:43	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/16/18 11:43	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/16/18 11:43	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/16/18 11:43	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/16/18 11:43	1
1,2-Dichloropropene	ND		1.0	0.72	ug/L			04/16/18 11:43	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/16/18 11:43	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/16/18 11:43	1
1,3-Dichloropropene	ND		1.0	0.75	ug/L			04/16/18 11:43	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/16/18 11:43	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/16/18 11:43	1
2,2-Dichloropropene	ND		1.0	0.40	ug/L			04/16/18 11:43	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/16/18 11:43	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/16/18 11:43	1
2-Hexanone	ND		10	1.2	ug/L			04/16/18 11:43	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/16/18 11:43	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/16/18 11:43	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/16/18 11:43	1
Acetone	ND		50	3.0	ug/L			04/16/18 11:43	1
Benzene	ND		1.0	0.41	ug/L			04/16/18 11:43	1
Bromobenzene	ND		1.0	0.80	ug/L			04/16/18 11:43	1
Bromoform	ND		1.0	0.26	ug/L			04/16/18 11:43	1
Bromomethane	ND		2.0	0.69	ug/L			04/16/18 11:43	1
Carbon disulfide	ND		10	0.19	ug/L			04/16/18 11:43	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/16/18 11:43	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/16/18 11:43	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/16/18 11:43	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/16/18 11:43	1
Chloroethane	ND		2.0	0.32	ug/L			04/16/18 11:43	1
Chloroform	ND		1.0	0.34	ug/L			04/16/18 11:43	1
Chloromethane	ND		2.0	0.35	ug/L			04/16/18 11:43	1
cis-1,2-Dichloroethene	4.0		1.0	0.81	ug/L			04/16/18 11:43	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/16/18 11:43	1
Dibromomethane	ND		1.0	0.41	ug/L			04/16/18 11:43	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/16/18 11:43	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/16/18 11:43	1
Ethyl ether	ND		1.0	0.72	ug/L			04/16/18 11:43	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/16/18 11:43	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/16/18 11:43	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/16/18 11:43	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Client Sample ID: C040918-OSW7

Lab Sample ID: 480-133840-1

Date Collected: 04/09/18 09:20

Matrix: Water

Date Received: 04/10/18 10:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/16/18 11:43	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/16/18 11:43	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/16/18 11:43	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/16/18 11:43	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/16/18 11:43	1
Naphthalene	ND		5.0	0.43	ug/L			04/16/18 11:43	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/16/18 11:43	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/16/18 11:43	1
o-Xylene	ND		1.0	0.76	ug/L			04/16/18 11:43	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/16/18 11:43	1
Styrene	ND		1.0	0.73	ug/L			04/16/18 11:43	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/16/18 11:43	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/16/18 11:43	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/16/18 11:43	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/16/18 11:43	1
Tetrahydrofuran	ND *		10	1.3	ug/L			04/16/18 11:43	1
Toluene	ND		1.0	0.51	ug/L			04/16/18 11:43	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/16/18 11:43	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/16/18 11:43	1
Trichloroethene	19		1.0	0.46	ug/L			04/16/18 11:43	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/16/18 11:43	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/16/18 11:43	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109			70 - 130				04/16/18 11:43	1
4-Bromofluorobenzene (Surr)	102			70 - 130				04/16/18 11:43	1
Toluene-d8 (Surr)	100			70 - 130				04/16/18 11:43	1
Dibromofluoromethane (Surr)	108			70 - 130				04/16/18 11:43	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	240		5.0	1.0	ug/L		04/12/18 10:42	04/12/18 19:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.25	H	0.010	0.0050	mg/L			04/10/18 15:15	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Client Sample ID: C040918-DMWB

Lab Sample ID: 480-133840-2

Matrix: Water

Date Collected: 04/09/18 11:20

Date Received: 04/10/18 10:30

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/15/18 19:05	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/15/18 19:05	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/15/18 19:05	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/15/18 19:05	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/15/18 19:05	1
1,1-Dichloroethene	1.3		1.0	0.29	ug/L			04/15/18 19:05	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/15/18 19:05	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/15/18 19:05	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/15/18 19:05	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/15/18 19:05	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/15/18 19:05	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/15/18 19:05	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/15/18 19:05	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/15/18 19:05	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/15/18 19:05	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/15/18 19:05	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/15/18 19:05	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/15/18 19:05	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/15/18 19:05	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/15/18 19:05	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/15/18 19:05	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/15/18 19:05	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/15/18 19:05	1
2-Hexanone	ND *		10	1.2	ug/L			04/15/18 19:05	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/15/18 19:05	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/15/18 19:05	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/15/18 19:05	1
Acetone	ND		50	3.0	ug/L			04/15/18 19:05	1
Benzene	ND		1.0	0.41	ug/L			04/15/18 19:05	1
Bromobenzene	ND		1.0	0.80	ug/L			04/15/18 19:05	1
Bromoform	ND		1.0	0.26	ug/L			04/15/18 19:05	1
Bromomethane	ND		2.0	0.69	ug/L			04/15/18 19:05	1
Carbon disulfide	ND		10	0.19	ug/L			04/15/18 19:05	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/15/18 19:05	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/15/18 19:05	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/15/18 19:05	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/15/18 19:05	1
Chloroethane	ND		2.0	0.32	ug/L			04/15/18 19:05	1
Chloroform	ND		1.0	0.34	ug/L			04/15/18 19:05	1
Chloromethane	ND		2.0	0.35	ug/L			04/15/18 19:05	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/15/18 19:05	1
Dibromomethane	ND		1.0	0.41	ug/L			04/15/18 19:05	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/15/18 19:05	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/15/18 19:05	1
Ethyl ether	ND		1.0	0.72	ug/L			04/15/18 19:05	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/15/18 19:05	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/15/18 19:05	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/15/18 19:05	1
Isopropyl ether	ND		10	0.59	ug/L			04/15/18 19:05	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Client Sample ID: C040918-DMWB

Lab Sample ID: 480-133840-2

Matrix: Water

Date Collected: 04/09/18 11:20
Date Received: 04/10/18 10:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0	0.79	ug/L			04/15/18 19:05	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/15/18 19:05	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/15/18 19:05	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/15/18 19:05	1
Naphthalene	ND		5.0	0.43	ug/L			04/15/18 19:05	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/15/18 19:05	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/15/18 19:05	1
o-Xylene	ND		1.0	0.76	ug/L			04/15/18 19:05	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/15/18 19:05	1
Styrene	ND		1.0	0.73	ug/L			04/15/18 19:05	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/15/18 19:05	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/15/18 19:05	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/15/18 19:05	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/15/18 19:05	1
Tetrahydrofuran	ND		10	1.3	ug/L			04/15/18 19:05	1
Toluene	ND		1.0	0.51	ug/L			04/15/18 19:05	1
trans-1,2-Dichloroethene	54		1.0	0.90	ug/L			04/15/18 19:05	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/15/18 19:05	1
Trichloroethene	86		1.0	0.46	ug/L			04/15/18 19:05	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/15/18 19:05	1
Vinyl chloride	14		1.0	0.90	ug/L			04/15/18 19:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130					04/15/18 19:05	1
4-Bromofluorobenzene (Surr)	95		70 - 130					04/15/18 19:05	1
Toluene-d8 (Surr)	100		70 - 130					04/15/18 19:05	1
Dibromofluoromethane (Surr)	101		70 - 130					04/15/18 19:05	1

Method: 8260C - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	170		4.0	3.2	ug/L			04/16/18 12:07	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 130					04/16/18 12:07	4
4-Bromofluorobenzene (Surr)	99		70 - 130					04/16/18 12:07	4
Toluene-d8 (Surr)	100		70 - 130					04/16/18 12:07	4
Dibromofluoromethane (Surr)	105		70 - 130					04/16/18 12:07	4

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	1.2	J	5.0	1.0	ug/L		04/12/18 10:42	04/12/18 19:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND	H	0.010	0.0050	mg/L			04/10/18 15:15	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Client Sample ID: C040918-DMWA

Lab Sample ID: 480-133840-3

Matrix: Water

Date Collected: 04/09/18 13:15

Date Received: 04/10/18 10:30

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/15/18 19:30	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/15/18 19:30	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/15/18 19:30	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/15/18 19:30	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/15/18 19:30	1
1,1-Dichloroethene	1.2		1.0	0.29	ug/L			04/15/18 19:30	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/15/18 19:30	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/15/18 19:30	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/15/18 19:30	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/15/18 19:30	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/15/18 19:30	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/15/18 19:30	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/15/18 19:30	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/15/18 19:30	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/15/18 19:30	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/15/18 19:30	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/15/18 19:30	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/15/18 19:30	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/15/18 19:30	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/15/18 19:30	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/15/18 19:30	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/15/18 19:30	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/15/18 19:30	1
2-Hexanone	ND *		10	1.2	ug/L			04/15/18 19:30	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/15/18 19:30	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/15/18 19:30	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/15/18 19:30	1
Acetone	ND		50	3.0	ug/L			04/15/18 19:30	1
Benzene	ND		1.0	0.41	ug/L			04/15/18 19:30	1
Bromobenzene	ND		1.0	0.80	ug/L			04/15/18 19:30	1
Bromoform	ND		1.0	0.26	ug/L			04/15/18 19:30	1
Bromomethane	ND		2.0	0.69	ug/L			04/15/18 19:30	1
Carbon disulfide	ND		10	0.19	ug/L			04/15/18 19:30	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/15/18 19:30	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/15/18 19:30	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/15/18 19:30	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/15/18 19:30	1
Chloroethane	ND		2.0	0.32	ug/L			04/15/18 19:30	1
Chloroform	ND		1.0	0.34	ug/L			04/15/18 19:30	1
Chloromethane	ND		2.0	0.35	ug/L			04/15/18 19:30	1
cis-1,2-Dichloroethene	48		1.0	0.81	ug/L			04/15/18 19:30	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/15/18 19:30	1
Dibromomethane	ND		1.0	0.41	ug/L			04/15/18 19:30	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/15/18 19:30	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/15/18 19:30	1
Ethyl ether	ND		1.0	0.72	ug/L			04/15/18 19:30	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/15/18 19:30	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/15/18 19:30	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/15/18 19:30	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc

Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Client Sample ID: C040918-DMWA

Lab Sample ID: 480-133840-3

Date Collected: 04/09/18 13:15

Matrix: Water

Date Received: 04/10/18 10:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/15/18 19:30	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/15/18 19:30	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/15/18 19:30	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/15/18 19:30	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/15/18 19:30	1
Naphthalene	ND		5.0	0.43	ug/L			04/15/18 19:30	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/15/18 19:30	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/15/18 19:30	1
o-Xylene	ND		1.0	0.76	ug/L			04/15/18 19:30	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/15/18 19:30	1
Styrene	ND		1.0	0.73	ug/L			04/15/18 19:30	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/15/18 19:30	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/15/18 19:30	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/15/18 19:30	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/15/18 19:30	1
Tetrahydrofuran	ND		10	1.3	ug/L			04/15/18 19:30	1
Toluene	ND		1.0	0.51	ug/L			04/15/18 19:30	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/15/18 19:30	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/15/18 19:30	1
Trichloroethene	23		1.0	0.46	ug/L			04/15/18 19:30	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/15/18 19:30	1
Vinyl chloride	4.4		1.0	0.90	ug/L			04/15/18 19:30	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97			70 - 130				04/15/18 19:30	1
4-Bromofluorobenzene (Surr)	95			70 - 130				04/15/18 19:30	1
Toluene-d8 (Surr)	99			70 - 130				04/15/18 19:30	1
Dibromofluoromethane (Surr)	94			70 - 130				04/15/18 19:30	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		5.0	1.0	ug/L		04/12/18 10:42	04/12/18 19:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND	H	0.010	0.0050	mg/L			04/10/18 15:15	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Client Sample ID: C040918-CLW8

Date Collected: 04/09/18 14:50

Date Received: 04/10/18 10:30

Lab Sample ID: 480-133840-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/15/18 19:55	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/15/18 19:55	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/15/18 19:55	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/15/18 19:55	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/15/18 19:55	1
1,1-Dichloroethene	0.43	J	1.0	0.29	ug/L			04/15/18 19:55	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/15/18 19:55	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/15/18 19:55	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/15/18 19:55	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/15/18 19:55	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/15/18 19:55	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/15/18 19:55	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/15/18 19:55	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/15/18 19:55	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/15/18 19:55	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/15/18 19:55	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/15/18 19:55	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/15/18 19:55	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/15/18 19:55	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/15/18 19:55	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/15/18 19:55	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/15/18 19:55	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/15/18 19:55	1
2-Hexanone	ND *		10	1.2	ug/L			04/15/18 19:55	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/15/18 19:55	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/15/18 19:55	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/15/18 19:55	1
Acetone	ND		50	3.0	ug/L			04/15/18 19:55	1
Benzene	ND		1.0	0.41	ug/L			04/15/18 19:55	1
Bromobenzene	ND		1.0	0.80	ug/L			04/15/18 19:55	1
Bromoform	ND		1.0	0.26	ug/L			04/15/18 19:55	1
Bromomethane	ND		2.0	0.69	ug/L			04/15/18 19:55	1
Carbon disulfide	ND		10	0.19	ug/L			04/15/18 19:55	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/15/18 19:55	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/15/18 19:55	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/15/18 19:55	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/15/18 19:55	1
Chloroethane	ND		2.0	0.32	ug/L			04/15/18 19:55	1
Chloroform	ND		1.0	0.34	ug/L			04/15/18 19:55	1
Chloromethane	ND		2.0	0.35	ug/L			04/15/18 19:55	1
cis-1,2-Dichloroethene	9.2		1.0	0.81	ug/L			04/15/18 19:55	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/15/18 19:55	1
Dibromomethane	ND		1.0	0.41	ug/L			04/15/18 19:55	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/15/18 19:55	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/15/18 19:55	1
Ethyl ether	ND		1.0	0.72	ug/L			04/15/18 19:55	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/15/18 19:55	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/15/18 19:55	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/15/18 19:55	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Client Sample ID: C040918-CLW8

Lab Sample ID: 480-133840-4

Date Collected: 04/09/18 14:50

Matrix: Water

Date Received: 04/10/18 10:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/15/18 19:55	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/15/18 19:55	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/15/18 19:55	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/15/18 19:55	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/15/18 19:55	1
Naphthalene	ND		5.0	0.43	ug/L			04/15/18 19:55	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/15/18 19:55	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/15/18 19:55	1
o-Xylene	ND		1.0	0.76	ug/L			04/15/18 19:55	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/15/18 19:55	1
Styrene	ND		1.0	0.73	ug/L			04/15/18 19:55	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/15/18 19:55	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/15/18 19:55	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/15/18 19:55	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/15/18 19:55	1
Tetrahydrofuran	ND		10	1.3	ug/L			04/15/18 19:55	1
Toluene	ND		1.0	0.51	ug/L			04/15/18 19:55	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/15/18 19:55	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/15/18 19:55	1
Trichloroethene	31		1.0	0.46	ug/L			04/15/18 19:55	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/15/18 19:55	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/15/18 19:55	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101			70 - 130				04/15/18 19:55	1
4-Bromofluorobenzene (Surr)	96			70 - 130				04/15/18 19:55	1
Toluene-d8 (Surr)	101			70 - 130				04/15/18 19:55	1
Dibromofluoromethane (Surr)	100			70 - 130				04/15/18 19:55	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	520		5.0	1.0	ug/L		04/12/18 10:42	04/12/18 19:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.49	H	0.050	0.025	mg/L			04/10/18 15:15	5

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Client Sample ID: TB

Date Collected: 04/09/18 00:00

Date Received: 04/10/18 10:30

Lab Sample ID: 480-133840-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/15/18 20:20	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/15/18 20:20	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/15/18 20:20	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/15/18 20:20	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/15/18 20:20	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/15/18 20:20	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/15/18 20:20	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/15/18 20:20	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/15/18 20:20	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/15/18 20:20	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/15/18 20:20	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/15/18 20:20	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/15/18 20:20	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/15/18 20:20	1
1,2-Dichloropropene	ND		1.0	0.72	ug/L			04/15/18 20:20	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/15/18 20:20	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/15/18 20:20	1
1,3-Dichloropropene	ND		1.0	0.75	ug/L			04/15/18 20:20	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/15/18 20:20	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/15/18 20:20	1
2,2-Dichloropropene	ND		1.0	0.40	ug/L			04/15/18 20:20	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/15/18 20:20	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/15/18 20:20	1
2-Hexanone	ND *		10	1.2	ug/L			04/15/18 20:20	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/15/18 20:20	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/15/18 20:20	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/15/18 20:20	1
Acetone	ND		50	3.0	ug/L			04/15/18 20:20	1
Benzene	ND		1.0	0.41	ug/L			04/15/18 20:20	1
Bromobenzene	ND		1.0	0.80	ug/L			04/15/18 20:20	1
Bromoform	ND		1.0	0.26	ug/L			04/15/18 20:20	1
Bromomethane	ND		2.0	0.69	ug/L			04/15/18 20:20	1
Carbon disulfide	ND		10	0.19	ug/L			04/15/18 20:20	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/15/18 20:20	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/15/18 20:20	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/15/18 20:20	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/15/18 20:20	1
Chloroethane	ND		2.0	0.32	ug/L			04/15/18 20:20	1
Chloroform	ND		1.0	0.34	ug/L			04/15/18 20:20	1
Chloromethane	ND		2.0	0.35	ug/L			04/15/18 20:20	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/15/18 20:20	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/15/18 20:20	1
Dibromomethane	ND		1.0	0.41	ug/L			04/15/18 20:20	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/15/18 20:20	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/15/18 20:20	1
Ethyl ether	ND		1.0	0.72	ug/L			04/15/18 20:20	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/15/18 20:20	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/15/18 20:20	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/15/18 20:20	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Client Sample ID: TB

Date Collected: 04/09/18 00:00
Date Received: 04/10/18 10:30

Lab Sample ID: 480-133840-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L		04/15/18 20:20		1
Isopropylbenzene	ND		1.0	0.79	ug/L		04/15/18 20:20		1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L		04/15/18 20:20		1
Methylene Chloride	ND		1.0	0.44	ug/L		04/15/18 20:20		1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L		04/15/18 20:20		1
Naphthalene	ND		5.0	0.43	ug/L		04/15/18 20:20		1
n-Butylbenzene	ND		1.0	0.64	ug/L		04/15/18 20:20		1
N-Propylbenzene	ND		1.0	0.69	ug/L		04/15/18 20:20		1
o-Xylene	ND		1.0	0.76	ug/L		04/15/18 20:20		1
sec-Butylbenzene	ND		1.0	0.75	ug/L		04/15/18 20:20		1
Styrene	ND		1.0	0.73	ug/L		04/15/18 20:20		1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L		04/15/18 20:20		1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L		04/15/18 20:20		1
tert-Butylbenzene	ND		1.0	0.81	ug/L		04/15/18 20:20		1
Tetrachloroethene	ND		1.0	0.36	ug/L		04/15/18 20:20		1
Tetrahydrofuran	ND		10	1.3	ug/L		04/15/18 20:20		1
Toluene	ND		1.0	0.51	ug/L		04/15/18 20:20		1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L		04/15/18 20:20		1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L		04/15/18 20:20		1
Trichloroethene	ND		1.0	0.46	ug/L		04/15/18 20:20		1
Trichlorofluoromethane	ND		1.0	0.88	ug/L		04/15/18 20:20		1
Vinyl chloride	ND		1.0	0.90	ug/L		04/15/18 20:20		1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)		103		70 - 130			04/15/18 20:20		1
4-Bromofluorobenzene (Surr)		95		70 - 130			04/15/18 20:20		1
Toluene-d8 (Surr)		99		70 - 130			04/15/18 20:20		1
Dibromofluoromethane (Surr)		99		70 - 130			04/15/18 20:20		1

TestAmerica Buffalo

Surrogate Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (70-130)	BFB (70-130)	TOL (70-130)	DBFM (70-130)
480-133840-1	C040918-OSW7	109	102	100	108
480-133840-2	C040918-DMWB	101	95	100	101
480-133840-2 - DL	C040918-DMWB	106	99	100	105
480-133840-3	C040918-DMWA	97	95	99	94
480-133840-4	C040918-CLW8	101	96	101	100
480-133840-5	TB	103	95	99	99
LCS 480-408914/5	Lab Control Sample	102	99	102	87
LCS 480-408945/5	Lab Control Sample	110	102	101	108
LCSD 480-408914/6	Lab Control Sample Dup	102	99	101	88
LCSD 480-408945/6	Lab Control Sample Dup	108	102	98	108
MB 480-408914/8	Method Blank	104	96	99	100
MB 480-408945/8	Method Blank	110	103	99	106

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-408914/8

Matrix: Water

Analysis Batch: 408914

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier				
1,1,1,2-Tetrachloroethane	ND		1.0	0.35 ug/L	04/15/18 16:56	1
1,1,1-Trichloroethane	ND		1.0	0.82 ug/L	04/15/18 16:56	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21 ug/L	04/15/18 16:56	1
1,1,2-Trichloroethane	ND		1.0	0.23 ug/L	04/15/18 16:56	1
1,1-Dichloroethane	ND		1.0	0.38 ug/L	04/15/18 16:56	1
1,1-Dichloroethene	ND		1.0	0.29 ug/L	04/15/18 16:56	1
1,1-Dichloropropene	ND		1.0	0.72 ug/L	04/15/18 16:56	1
1,2,3-Trichlorobenzene	ND		1.0	0.41 ug/L	04/15/18 16:56	1
1,2,3-Trichloropropane	ND		1.0	0.89 ug/L	04/15/18 16:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.41 ug/L	04/15/18 16:56	1
1,2,4-Trimethylbenzene	ND		1.0	0.75 ug/L	04/15/18 16:56	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39 ug/L	04/15/18 16:56	1
1,2-Dichlorobenzene	ND		1.0	0.79 ug/L	04/15/18 16:56	1
1,2-Dichloroethane	ND		1.0	0.21 ug/L	04/15/18 16:56	1
1,2-Dichloropropane	ND		1.0	0.72 ug/L	04/15/18 16:56	1
1,3,5-Trimethylbenzene	ND		1.0	0.77 ug/L	04/15/18 16:56	1
1,3-Dichlorobenzene	ND		1.0	0.78 ug/L	04/15/18 16:56	1
1,3-Dichloropropane	ND		1.0	0.75 ug/L	04/15/18 16:56	1
1,4-Dichlorobenzene	ND		1.0	0.84 ug/L	04/15/18 16:56	1
1,4-Dioxane	ND		50	9.3 ug/L	04/15/18 16:56	1
2,2-Dichloropropane	ND		1.0	0.40 ug/L	04/15/18 16:56	1
2-Butanone (MEK)	ND		10	1.3 ug/L	04/15/18 16:56	1
2-Chlorotoluene	ND		1.0	0.86 ug/L	04/15/18 16:56	1
2-Hexanone	ND		10	1.2 ug/L	04/15/18 16:56	1
4-Chlorotoluene	ND		1.0	0.84 ug/L	04/15/18 16:56	1
4-Isopropyltoluene	ND		1.0	0.31 ug/L	04/15/18 16:56	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1 ug/L	04/15/18 16:56	1
Acetone	ND		50	3.0 ug/L	04/15/18 16:56	1
Benzene	ND		1.0	0.41 ug/L	04/15/18 16:56	1
Bromobenzene	ND		1.0	0.80 ug/L	04/15/18 16:56	1
Bromoform	ND		1.0	0.26 ug/L	04/15/18 16:56	1
Bromomethane	ND		2.0	0.69 ug/L	04/15/18 16:56	1
Carbon disulfide	0.362 J		10	0.19 ug/L	04/15/18 16:56	1
Carbon tetrachloride	ND		1.0	0.27 ug/L	04/15/18 16:56	1
Chlorobenzene	ND		1.0	0.75 ug/L	04/15/18 16:56	1
Chlorobromomethane	ND		1.0	0.87 ug/L	04/15/18 16:56	1
Chlorodibromomethane	ND		0.50	0.32 ug/L	04/15/18 16:56	1
Chloroethane	ND		2.0	0.32 ug/L	04/15/18 16:56	1
Chloroform	ND		1.0	0.34 ug/L	04/15/18 16:56	1
Chloromethane	ND		2.0	0.35 ug/L	04/15/18 16:56	1
cis-1,2-Dichloroethene	ND		1.0	0.81 ug/L	04/15/18 16:56	1
cis-1,3-Dichloropropene	ND		0.40	0.36 ug/L	04/15/18 16:56	1
Dibromomethane	ND		1.0	0.41 ug/L	04/15/18 16:56	1
Dichlorobromomethane	ND		0.50	0.39 ug/L	04/15/18 16:56	1
Dichlorodifluoromethane	ND		1.0	0.68 ug/L	04/15/18 16:56	1
Ethyl ether	ND		1.0	0.72 ug/L	04/15/18 16:56	1
Ethylbenzene	ND		1.0	0.74 ug/L	04/15/18 16:56	1
Ethylene Dibromide	ND		1.0	0.73 ug/L	04/15/18 16:56	1

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-408914/8

Matrix: Water

Analysis Batch: 408914

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Hexachlorobutadiene	0.730				0.40	0.28	ug/L			04/15/18 16:56	1
Isopropyl ether	ND				10	0.59	ug/L			04/15/18 16:56	1
Isopropylbenzene	ND				1.0	0.79	ug/L			04/15/18 16:56	1
Methyl tert-butyl ether	ND				1.0	0.16	ug/L			04/15/18 16:56	1
Methylene Chloride	ND				1.0	0.44	ug/L			04/15/18 16:56	1
m-Xylene & p-Xylene	ND				2.0	0.66	ug/L			04/15/18 16:56	1
Naphthalene	ND				5.0	0.43	ug/L			04/15/18 16:56	1
n-Butylbenzene	ND				1.0	0.64	ug/L			04/15/18 16:56	1
N-Propylbenzene	ND				1.0	0.69	ug/L			04/15/18 16:56	1
o-Xylene	ND				1.0	0.76	ug/L			04/15/18 16:56	1
sec-Butylbenzene	ND				1.0	0.75	ug/L			04/15/18 16:56	1
Styrene	ND				1.0	0.73	ug/L			04/15/18 16:56	1
Tert-amyl methyl ether	ND				5.0	0.27	ug/L			04/15/18 16:56	1
Tert-butyl ethyl ether	ND				5.0	0.29	ug/L			04/15/18 16:56	1
tert-Butylbenzene	ND				1.0	0.81	ug/L			04/15/18 16:56	1
Tetrachloroethene	ND				1.0	0.36	ug/L			04/15/18 16:56	1
Tetrahydrofuran	ND				10	1.3	ug/L			04/15/18 16:56	1
Toluene	ND				1.0	0.51	ug/L			04/15/18 16:56	1
trans-1,2-Dichloroethene	ND				1.0	0.90	ug/L			04/15/18 16:56	1
trans-1,3-Dichloropropene	ND				0.40	0.37	ug/L			04/15/18 16:56	1
Trichloroethene	ND				1.0	0.46	ug/L			04/15/18 16:56	1
Trichlorofluoromethane	ND				1.0	0.88	ug/L			04/15/18 16:56	1
Vinyl chloride	ND				1.0	0.90	ug/L			04/15/18 16:56	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 130			1
4-Bromofluorobenzene (Surr)	96		70 - 130			1
Toluene-d8 (Surr)	99		70 - 130			1
Dibromofluoromethane (Surr)	100		70 - 130			1

Lab Sample ID: LCS 480-408914/5

Matrix: Water

Analysis Batch: 408914

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
1,1,1,2-Tetrachloroethane	25.0	27.4		ug/L		109	70 - 130
1,1,1-Trichloroethane	25.0	25.0		ug/L		100	70 - 130
1,1,2,2-Tetrachloroethane	25.0	29.7		ug/L		119	70 - 130
1,1,2-Trichloroethane	25.0	28.2		ug/L		113	70 - 130
1,1-Dichloroethane	25.0	25.4		ug/L		102	70 - 130
1,1-Dichloroethene	25.0	24.8		ug/L		99	70 - 130
1,1-Dichloropropene	25.0	26.2		ug/L		105	70 - 130
1,2,3-Trichlorobenzene	25.0	27.3		ug/L		109	70 - 130
1,2,3-Trichloropropane	25.0	27.5		ug/L		110	70 - 130
1,2,4-Trichlorobenzene	25.0	26.9		ug/L		108	70 - 130
1,2,4-Trimethylbenzene	25.0	27.8		ug/L		111	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	23.9		ug/L		96	70 - 130
1,2-Dichlorobenzene	25.0	27.5		ug/L		110	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-408914/5

Matrix: Water

Analysis Batch: 408914

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec.
		Result	Qualifier				
1,2-Dichloroethane	25.0	22.0		ug/L		88	70 - 130
1,2-Dichloropropane	25.0	25.9		ug/L		104	70 - 130
1,3,5-Trimethylbenzene	25.0	28.6		ug/L		114	70 - 130
1,3-Dichlorobenzene	25.0	27.1		ug/L		108	70 - 130
1,3-Dichloropropane	25.0	27.9		ug/L		112	70 - 130
1,4-Dichlorobenzene	25.0	26.2		ug/L		105	70 - 130
1,4-Dioxane	500	664 *		ug/L		133	70 - 130
2,2-Dichloropropane	25.0	25.0		ug/L		100	70 - 130
2-Butanone (MEK)	125	249 *		ug/L		199	70 - 130
2-Chlorotoluene	25.0	28.8		ug/L		115	70 - 130
2-Hexanone	125	233 *		ug/L		187	70 - 130
4-Chlorotoluene	25.0	29.1		ug/L		117	70 - 130
4-Isopropyltoluene	25.0	28.8		ug/L		115	70 - 130
4-Methyl-2-pentanone (MIBK)	125	155		ug/L		124	70 - 130
Acetone	125	112		ug/L		89	70 - 130
Benzene	25.0	25.0		ug/L		100	70 - 130
Bromobenzene	25.0	28.0		ug/L		112	70 - 130
Bromoform	25.0	28.1		ug/L		112	70 - 130
Bromomethane	25.0	22.0		ug/L		88	70 - 130
Carbon disulfide	25.0	26.3		ug/L		105	70 - 130
Carbon tetrachloride	25.0	24.9		ug/L		100	70 - 130
Chlorobenzene	25.0	27.3		ug/L		109	70 - 130
Chlorobromomethane	25.0	23.3		ug/L		93	70 - 130
Chlorodibromomethane	25.0	29.6		ug/L		118	70 - 130
Chloroethane	25.0	23.6		ug/L		94	70 - 130
Chloroform	25.0	23.3		ug/L		93	70 - 130
Chloromethane	25.0	19.8		ug/L		79	70 - 130
cis-1,2-Dichloroethene	25.0	23.6		ug/L		94	70 - 130
cis-1,3-Dichloropropene	25.0	26.0		ug/L		104	70 - 130
Dibromomethane	25.0	24.5		ug/L		98	70 - 130
Dichlorobromomethane	25.0	25.1		ug/L		100	70 - 130
Dichlorodifluoromethane	25.0	18.1		ug/L		72	70 - 130
Ethyl ether	25.0	25.8		ug/L		103	70 - 130
Ethylbenzene	25.0	28.2		ug/L		113	70 - 130
Ethylene Dibromide	25.0	28.5		ug/L		114	70 - 130
Hexachlorobutadiene	25.0	27.2		ug/L		109	70 - 130
Isopropyl ether	25.0	29.6		ug/L		118	70 - 130
Isopropylbenzene	25.0	28.9		ug/L		116	70 - 130
Methyl tert-butyl ether	25.0	24.3		ug/L		97	70 - 130
Methylene Chloride	25.0	22.9		ug/L		92	70 - 130
m-Xylene & p-Xylene	25.0	28.7		ug/L		115	70 - 130
Naphthalene	25.0	29.0		ug/L		116	70 - 130
n-Butylbenzene	25.0	28.5		ug/L		114	70 - 130
N-Propylbenzene	25.0	29.0		ug/L		116	70 - 130
o-Xylene	25.0	28.7		ug/L		115	70 - 130
sec-Butylbenzene	25.0	29.3		ug/L		117	70 - 130
Styrene	25.0	28.6		ug/L		115	70 - 130
Tert-amyl methyl ether	25.0	28.4		ug/L		113	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-408914/5

Matrix: Water

Analysis Batch: 408914

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS		Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
Tert-butyl ethyl ether	25.0	28.3		ug/L		113	70 - 130
tert-Butylbenzene	25.0	28.6		ug/L		115	70 - 130
Tetrachloroethene	25.0	30.7		ug/L		123	70 - 130
Tetrahydrofuran	50.0	51.4		ug/L		103	70 - 130
Toluene	25.0	28.5		ug/L		114	70 - 130
trans-1,2-Dichloroethene	25.0	23.6		ug/L		95	70 - 130
trans-1,3-Dichloropropene	25.0	29.4		ug/L		118	70 - 130
Trichloroethene	25.0	25.3		ug/L		101	70 - 130
Trichlorofluoromethane	25.0	22.9		ug/L		91	70 - 130
Vinyl chloride	25.0	19.0		ug/L		76	70 - 130
Surrogate		LCS	LCS	Limits			
		%Recovery	Qualifier	Limits			
1,2-Dichloroethane-d4 (Surr)	102			70 - 130			
4-Bromofluorobenzene (Surr)	99			70 - 130			
Toluene-d8 (Surr)	102			70 - 130			
Dibromofluoromethane (Surr)	87			70 - 130			

Lab Sample ID: LCSD 480-408914/6

Matrix: Water

Analysis Batch: 408914

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD		Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier						
1,1,1,2-Tetrachloroethane	25.0	26.9		ug/L		107	70 - 130	2	20
1,1,1-Trichloroethane	25.0	25.1		ug/L		100	70 - 130	0	20
1,1,2,2-Tetrachloroethane	25.0	29.2		ug/L		117	70 - 130	2	20
1,1,2-Trichloroethane	25.0	27.7		ug/L		111	70 - 130	2	20
1,1-Dichloroethane	25.0	25.5		ug/L		102	70 - 130	0	20
1,1-Dichloroethene	25.0	25.9		ug/L		103	70 - 130	4	20
1,1-Dichloropropene	25.0	26.4		ug/L		105	70 - 130	1	20
1,2,3-Trichlorobenzene	25.0	27.9		ug/L		112	70 - 130	2	20
1,2,3-Trichloropropane	25.0	27.2		ug/L		109	70 - 130	1	20
1,2,4-Trichlorobenzene	25.0	27.4		ug/L		110	70 - 130	2	20
1,2,4-Trimethylbenzene	25.0	27.9		ug/L		112	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	25.0	23.9		ug/L		95	70 - 130	0	20
1,2-Dichlorobenzene	25.0	27.6		ug/L		110	70 - 130	0	20
1,2-Dichloroethane	25.0	22.3		ug/L		89	70 - 130	2	20
1,2-Dichloropropane	25.0	26.2		ug/L		105	70 - 130	1	20
1,3,5-Trimethylbenzene	25.0	28.9		ug/L		116	70 - 130	1	20
1,3-Dichlorobenzene	25.0	27.3		ug/L		109	70 - 130	1	20
1,3-Dichloropropane	25.0	27.5		ug/L		110	70 - 130	1	20
1,4-Dichlorobenzene	25.0	26.2		ug/L		105	70 - 130	0	20
1,4-Dioxane	500	693 *		ug/L		139	70 - 130	4	20
2,2-Dichloropropane	25.0	25.2		ug/L		101	70 - 130	1	20
2-Butanone (MEK)	125	250 *		ug/L		200	70 - 130	0	20
2-Chlorotoluene	25.0	28.3		ug/L		113	70 - 130	2	20
2-Hexanone	125	224 *		ug/L		180	70 - 130	4	20
4-Chlorotoluene	25.0	30.1		ug/L		120	70 - 130	3	20
4-Isopropyltoluene	25.0	29.2		ug/L		117	70 - 130	1	20

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-408914/6

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analysis Batch: 408914

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD
	Added	Result	Qualifier						
4-Methyl-2-pentanone (MIBK)	125	151		ug/L	120	70 - 130	3	20	
Acetone	125	113		ug/L	91	70 - 130	1	20	
Benzene	25.0	25.4		ug/L	102	70 - 130	2	20	
Bromobenzene	25.0	27.9		ug/L	112	70 - 130	1	20	
Bromoform	25.0	27.6		ug/L	110	70 - 130	2	20	
Bromomethane	25.0	22.3		ug/L	89	70 - 130	2	20	
Carbon disulfide	25.0	27.0		ug/L	108	70 - 130	3	20	
Carbon tetrachloride	25.0	25.4		ug/L	101	70 - 130	2	20	
Chlorobenzene	25.0	27.1		ug/L	108	70 - 130	1	20	
Chlorobromomethane	25.0	23.5		ug/L	94	70 - 130	1	20	
Chlorodibromomethane	25.0	29.2		ug/L	117	70 - 130	1	20	
Chloroethane	25.0	24.6		ug/L	98	70 - 130	4	20	
Chloroform	25.0	23.7		ug/L	95	70 - 130	2	20	
Chloromethane	25.0	20.0		ug/L	80	70 - 130	1	20	
cis-1,2-Dichloroethene	25.0	24.2		ug/L	97	70 - 130	2	20	
cis-1,3-Dichloropropene	25.0	26.3		ug/L	105	70 - 130	1	20	
Dibromomethane	25.0	24.6		ug/L	98	70 - 130	0	20	
Dichlorobromomethane	25.0	25.3		ug/L	101	70 - 130	1	20	
Dichlorodifluoromethane	25.0	18.4		ug/L	74	70 - 130	2	20	
Ethyl ether	25.0	26.7		ug/L	107	70 - 130	3	20	
Ethylbenzene	25.0	27.7		ug/L	111	70 - 130	2	20	
Ethylene Dibromide	25.0	27.6		ug/L	110	70 - 130	3	20	
Hexachlorobutadiene	25.0	28.1		ug/L	112	70 - 130	3	20	
Isopropyl ether	25.0	30.3		ug/L	121	70 - 130	2	20	
Isopropylbenzene	25.0	29.3		ug/L	117	70 - 130	1	20	
Methyl tert-butyl ether	25.0	24.5		ug/L	98	70 - 130	1	20	
Methylene Chloride	25.0	23.0		ug/L	92	70 - 130	1	20	
m-Xylene & p-Xylene	25.0	28.5		ug/L	114	70 - 130	1	20	
Naphthalene	25.0	29.4		ug/L	117	70 - 130	1	20	
n-Butylbenzene	25.0	29.0		ug/L	116	70 - 130	2	20	
N-Propylbenzene	25.0	29.1		ug/L	117	70 - 130	0	20	
o-Xylene	25.0	27.8		ug/L	111	70 - 130	3	20	
sec-Butylbenzene	25.0	29.3		ug/L	117	70 - 130	0	20	
Styrene	25.0	28.2		ug/L	113	70 - 130	1	20	
Tert-amyl methyl ether	25.0	28.7		ug/L	115	70 - 130	1	20	
Tert-butyl ethyl ether	25.0	28.8		ug/L	115	70 - 130	2	20	
tert-Butylbenzene	25.0	28.6		ug/L	114	70 - 130	0	20	
Tetrachloroethene	25.0	31.0		ug/L	124	70 - 130	1	20	
Tetrahydrofuran	50.0	49.6		ug/L	99	70 - 130	4	20	
Toluene	25.0	28.2		ug/L	113	70 - 130	1	20	
trans-1,2-Dichloroethene	25.0	24.5		ug/L	98	70 - 130	4	20	
trans-1,3-Dichloropropene	25.0	28.8		ug/L	115	70 - 130	2	20	
Trichloroethene	25.0	25.7		ug/L	103	70 - 130	2	20	
Trichlorofluoromethane	25.0	22.8		ug/L	91	70 - 130	0	20	
Vinyl chloride	25.0	19.0		ug/L	76	70 - 130	0	20	

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)		102			70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-408914/6

Matrix: Water

Analysis Batch: 408914

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
Toluene-d8 (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	88		70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Lab Sample ID: MB 480-408945/8

Matrix: Water

Analysis Batch: 408945

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/16/18 11:09	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/16/18 11:09	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/16/18 11:09	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/16/18 11:09	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/16/18 11:09	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/16/18 11:09	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/16/18 11:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/16/18 11:09	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/16/18 11:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/16/18 11:09	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/16/18 11:09	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/16/18 11:09	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/16/18 11:09	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/16/18 11:09	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/16/18 11:09	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/16/18 11:09	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/16/18 11:09	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/16/18 11:09	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/16/18 11:09	1
1,4-Dioxane	ND		50	9.3	ug/L			04/16/18 11:09	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/16/18 11:09	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/16/18 11:09	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/16/18 11:09	1
2-Hexanone	ND		10	1.2	ug/L			04/16/18 11:09	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/16/18 11:09	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/16/18 11:09	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/16/18 11:09	1
Acetone	ND		50	3.0	ug/L			04/16/18 11:09	1
Benzene	ND		1.0	0.41	ug/L			04/16/18 11:09	1
Bromobenzene	ND		1.0	0.80	ug/L			04/16/18 11:09	1
Bromoform	ND		1.0	0.26	ug/L			04/16/18 11:09	1
Bromomethane	ND		2.0	0.69	ug/L			04/16/18 11:09	1
Carbon disulfide	ND		10	0.19	ug/L			04/16/18 11:09	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/16/18 11:09	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/16/18 11:09	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/16/18 11:09	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/16/18 11:09	1
Chloroethane	ND		2.0	0.32	ug/L			04/16/18 11:09	1
Chloroform	ND		1.0	0.34	ug/L			04/16/18 11:09	1

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-408945/8

Matrix: Water

Analysis Batch: 408945

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Chloromethane	ND				2.0	0.35	ug/L			04/16/18 11:09	1
cis-1,2-Dichloroethene	ND				1.0	0.81	ug/L			04/16/18 11:09	1
cis-1,3-Dichloropropene	ND				0.40	0.36	ug/L			04/16/18 11:09	1
Dibromomethane	ND				1.0	0.41	ug/L			04/16/18 11:09	1
Dichlorobromomethane	ND				0.50	0.39	ug/L			04/16/18 11:09	1
Dichlorodifluoromethane	ND				1.0	0.68	ug/L			04/16/18 11:09	1
Ethyl ether	ND				1.0	0.72	ug/L			04/16/18 11:09	1
Ethylbenzene	ND				1.0	0.74	ug/L			04/16/18 11:09	1
Ethylene Dibromide	ND				1.0	0.73	ug/L			04/16/18 11:09	1
Hexachlorobutadiene	ND				0.40	0.28	ug/L			04/16/18 11:09	1
Isopropyl ether	ND				10	0.59	ug/L			04/16/18 11:09	1
Isopropylbenzene	ND				1.0	0.79	ug/L			04/16/18 11:09	1
Methyl tert-butyl ether	ND				1.0	0.16	ug/L			04/16/18 11:09	1
Methylene Chloride	ND				1.0	0.44	ug/L			04/16/18 11:09	1
m-Xylene & p-Xylene	ND				2.0	0.66	ug/L			04/16/18 11:09	1
Naphthalene	ND				5.0	0.43	ug/L			04/16/18 11:09	1
n-Butylbenzene	ND				1.0	0.64	ug/L			04/16/18 11:09	1
N-Propylbenzene	ND				1.0	0.69	ug/L			04/16/18 11:09	1
o-Xylene	ND				1.0	0.76	ug/L			04/16/18 11:09	1
sec-Butylbenzene	ND				1.0	0.75	ug/L			04/16/18 11:09	1
Styrene	ND				1.0	0.73	ug/L			04/16/18 11:09	1
Tert-amyl methyl ether	ND				5.0	0.27	ug/L			04/16/18 11:09	1
Tert-butyl ethyl ether	ND				5.0	0.29	ug/L			04/16/18 11:09	1
tert-Butylbenzene	ND				1.0	0.81	ug/L			04/16/18 11:09	1
Tetrachloroethene	ND				1.0	0.36	ug/L			04/16/18 11:09	1
Tetrahydrofuran	ND				10	1.3	ug/L			04/16/18 11:09	1
Toluene	ND				1.0	0.51	ug/L			04/16/18 11:09	1
trans-1,2-Dichloroethene	ND				1.0	0.90	ug/L			04/16/18 11:09	1
trans-1,3-Dichloropropene	ND				0.40	0.37	ug/L			04/16/18 11:09	1
Trichloroethene	ND				1.0	0.46	ug/L			04/16/18 11:09	1
Trichlorofluoromethane	ND				1.0	0.88	ug/L			04/16/18 11:09	1
Vinyl chloride	ND				1.0	0.90	ug/L			04/16/18 11:09	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		70 - 130		04/16/18 11:09	1
4-Bromofluorobenzene (Surr)	103		70 - 130		04/16/18 11:09	1
Toluene-d8 (Surr)	99		70 - 130		04/16/18 11:09	1
Dibromofluoromethane (Surr)	106		70 - 130		04/16/18 11:09	1

Lab Sample ID: LCS 480-408945/5

Matrix: Water

Analysis Batch: 408945

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS			%Rec.		
	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	25.0	25.3		ug/L	101	70 - 130	
1,1,1-Trichloroethane	25.0	24.0		ug/L	96	70 - 130	
1,1,2,2-Tetrachloroethane	25.0	26.1		ug/L	105	70 - 130	
1,1,2-Trichloroethane	25.0	25.7		ug/L	103	70 - 130	

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-408945/5

Matrix: Water

Analysis Batch: 408945

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec.
		Result	Qualifier				
1,1-Dichloroethane	25.0	24.3		ug/L		97	70 - 130
1,1-Dichloroethene	25.0	24.4		ug/L		98	70 - 130
1,1-Dichloropropene	25.0	24.9		ug/L		100	70 - 130
1,2,3-Trichlorobenzene	25.0	24.1		ug/L		97	70 - 130
1,2,3-Trichloropropane	25.0	27.3		ug/L		109	70 - 130
1,2,4-Trichlorobenzene	25.0	23.5		ug/L		94	70 - 130
1,2,4-Trimethylbenzene	25.0	23.8		ug/L		95	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	26.1		ug/L		104	70 - 130
1,2-Dichlorobenzene	25.0	25.0		ug/L		100	70 - 130
1,2-Dichloroethane	25.0	25.6		ug/L		102	70 - 130
1,2-Dichloropropene	25.0	24.7		ug/L		99	70 - 130
1,3,5-Trimethylbenzene	25.0	23.3		ug/L		93	70 - 130
1,3-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130
1,3-Dichloropropane	25.0	25.0		ug/L		100	70 - 130
1,4-Dichlorobenzene	25.0	23.8		ug/L		95	70 - 130
1,4-Dioxane	500	482		ug/L		96	70 - 130
2,2-Dichloropropene	25.0	24.6		ug/L		98	70 - 130
2-Butanone (MEK)	125	232	*	ug/L		186	70 - 130
2-Chlorotoluene	25.0	22.8		ug/L		91	70 - 130
2-Hexanone	125	127		ug/L		101	70 - 130
4-Chlorotoluene	25.0	23.2		ug/L		93	70 - 130
4-Isopropyltoluene	25.0	24.6		ug/L		98	70 - 130
4-Methyl-2-pentanone (MIBK)	125	128		ug/L		103	70 - 130
Acetone	125	120		ug/L		96	70 - 130
Benzene	25.0	24.6		ug/L		98	70 - 130
Bromobenzene	25.0	24.2		ug/L		97	70 - 130
Bromoform	25.0	23.2		ug/L		93	70 - 130
Bromomethane	25.0	25.5		ug/L		102	70 - 130
Carbon disulfide	25.0	23.3		ug/L		93	70 - 130
Carbon tetrachloride	25.0	24.7		ug/L		99	70 - 130
Chlorobenzene	25.0	23.9		ug/L		95	70 - 130
Chlorobromomethane	25.0	27.3		ug/L		109	70 - 130
Chlorodibromomethane	25.0	24.5		ug/L		98	70 - 130
Chloroethane	25.0	24.2		ug/L		97	70 - 130
Chloroform	25.0	24.1		ug/L		96	70 - 130
Chloromethane	25.0	19.3		ug/L		77	70 - 130
cis-1,2-Dichloroethene	25.0	25.1		ug/L		100	70 - 130
cis-1,3-Dichloropropene	25.0	24.9		ug/L		100	70 - 130
Dibromomethane	25.0	25.9		ug/L		104	70 - 130
Dichlorobromomethane	25.0	24.6		ug/L		98	70 - 130
Dichlorodifluoromethane	25.0	19.8		ug/L		79	70 - 130
Ethyl ether	25.0	24.8		ug/L		99	70 - 130
Ethylbenzene	25.0	23.8		ug/L		95	70 - 130
Ethylene Dibromide	25.0	26.1		ug/L		105	70 - 130
Hexachlorobutadiene	25.0	25.5		ug/L		102	70 - 130
Isopropyl ether	25.0	23.2		ug/L		93	70 - 130
Isopropylbenzene	25.0	23.3		ug/L		93	70 - 130
Methyl tert-butyl ether	25.0	26.0		ug/L		104	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-408945/5

Matrix: Water

Analysis Batch: 408945

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS		Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
Methylene Chloride	25.0	23.3		ug/L		93	70 - 130
m-Xylene & p-Xylene	25.0	24.0		ug/L		96	70 - 130
Naphthalene	25.0	26.4		ug/L		106	70 - 130
n-Butylbenzene	25.0	24.8		ug/L		99	70 - 130
N-Propylbenzene	25.0	23.3		ug/L		93	70 - 130
o-Xylene	25.0	24.3		ug/L		97	70 - 130
sec-Butylbenzene	25.0	24.2		ug/L		97	70 - 130
Styrene	25.0	24.6		ug/L		98	70 - 130
Tert-amyl methyl ether	25.0	27.4		ug/L		110	70 - 130
Tert-butyl ethyl ether	25.0	25.2		ug/L		101	70 - 130
tert-Butylbenzene	25.0	25.2		ug/L		101	70 - 130
Tetrachloroethene	25.0	26.2		ug/L		105	70 - 130
Tetrahydrofuran	50.0	65.9 *		ug/L		132	70 - 130
Toluene	25.0	23.6		ug/L		94	70 - 130
trans-1,2-Dichloroethene	25.0	24.8		ug/L		99	70 - 130
trans-1,3-Dichloropropene	25.0	24.6		ug/L		98	70 - 130
Trichloroethene	25.0	24.8		ug/L		99	70 - 130
Trichlorofluoromethane	25.0	26.4		ug/L		105	70 - 130
Vinyl chloride	25.0	22.3		ug/L		89	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	110		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130
Toluene-d8 (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	108		70 - 130

Lab Sample ID: LCSD 480-408945/6

Matrix: Water

Analysis Batch: 408945

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD		Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Added	Result	Qualifier						
1,1,1,2-Tetrachloroethane	25.0	26.1		ug/L		104	70 - 130	3	20
1,1,1-Trichloroethane	25.0	26.4		ug/L		106	70 - 130	10	20
1,1,2,2-Tetrachloroethane	25.0	26.2		ug/L		105	70 - 130	0	20
1,1,2-Trichloroethane	25.0	25.6		ug/L		102	70 - 130	0	20
1,1-Dichloroethane	25.0	26.4		ug/L		106	70 - 130	8	20
1,1-Dichloroethene	25.0	26.0		ug/L		104	70 - 130	6	20
1,1-Dichloropropene	25.0	26.6		ug/L		106	70 - 130	6	20
1,2,3-Trichlorobenzene	25.0	25.2		ug/L		101	70 - 130	4	20
1,2,3-Trichloropropane	25.0	27.5		ug/L		110	70 - 130	1	20
1,2,4-Trichlorobenzene	25.0	24.8		ug/L		99	70 - 130	5	20
1,2,4-Trimethylbenzene	25.0	24.5		ug/L		98	70 - 130	3	20
1,2-Dibromo-3-Chloropropane	25.0	24.5		ug/L		98	70 - 130	6	20
1,2-Dichlorobenzene	25.0	25.3		ug/L		101	70 - 130	1	20
1,2-Dichloroethane	25.0	25.4		ug/L		102	70 - 130	1	20
1,2-Dichloropropene	25.0	25.1		ug/L		100	70 - 130	2	20
1,3,5-Trimethylbenzene	25.0	24.7		ug/L		99	70 - 130	6	20
1,3-Dichlorobenzene	25.0	25.9		ug/L		104	70 - 130	5	20

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
 Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-408945/6

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analysis Batch: 408945

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD	Limit
	Added	Result	Qualifier							
1,3-Dichloropropane	25.0	25.8		ug/L		103	70 - 130	3	20	
1,4-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130	5	20	
1,4-Dioxane	500	667	*	ug/L		133	70 - 130	32	20	
2,2-Dichloropropane	25.0	26.1		ug/L		104	70 - 130	6	20	
2-Butanone (MEK)	125	237	*	ug/L		190	70 - 130	2	20	
2-Chlorotoluene	25.0	24.3		ug/L		97	70 - 130	7	20	
2-Hexanone	125	128		ug/L		103	70 - 130	1	20	
4-Chlorotoluene	25.0	24.2		ug/L		97	70 - 130	4	20	
4-Isopropyltoluene	25.0	26.2		ug/L		105	70 - 130	6	20	
4-Methyl-2-pentanone (MIBK)	125	129		ug/L		104	70 - 130	1	20	
Acetone	125	121		ug/L		97	70 - 130	1	20	
Benzene	25.0	25.4		ug/L		102	70 - 130	3	20	
Bromobenzene	25.0	24.9		ug/L		100	70 - 130	3	20	
Bromoform	25.0	24.0		ug/L		96	70 - 130	4	20	
Bromomethane	25.0	27.8		ug/L		111	70 - 130	9	20	
Carbon disulfide	25.0	25.2		ug/L		101	70 - 130	8	20	
Carbon tetrachloride	25.0	26.6		ug/L		107	70 - 130	8	20	
Chlorobenzene	25.0	24.8		ug/L		99	70 - 130	4	20	
Chlorobromomethane	25.0	28.0		ug/L		112	70 - 130	3	20	
Chlorodibromomethane	25.0	25.2		ug/L		101	70 - 130	3	20	
Chloroethane	25.0	25.9		ug/L		104	70 - 130	7	20	
Chloroform	25.0	25.2		ug/L		101	70 - 130	5	20	
Chloromethane	25.0	20.6		ug/L		82	70 - 130	6	20	
cis-1,2-Dichloroethene	25.0	26.7		ug/L		107	70 - 130	6	20	
cis-1,3-Dichloropropene	25.0	26.0		ug/L		104	70 - 130	4	20	
Dibromomethane	25.0	27.3		ug/L		109	70 - 130	5	20	
Dichlorobromomethane	25.0	25.4		ug/L		102	70 - 130	3	20	
Dichlorodifluoromethane	25.0	21.9		ug/L		88	70 - 130	10	20	
Ethyl ether	25.0	26.4		ug/L		106	70 - 130	6	20	
Ethylbenzene	25.0	25.3		ug/L		101	70 - 130	6	20	
Ethylene Dibromide	25.0	26.5		ug/L		106	70 - 130	2	20	
Hexachlorobutadiene	25.0	26.7		ug/L		107	70 - 130	5	20	
Isopropyl ether	25.0	23.9		ug/L		96	70 - 130	3	20	
Isopropylbenzene	25.0	24.9		ug/L		100	70 - 130	7	20	
Methyl tert-butyl ether	25.0	26.3		ug/L		105	70 - 130	1	20	
Methylene Chloride	25.0	23.7		ug/L		95	70 - 130	2	20	
m-Xylene & p-Xylene	25.0	24.7		ug/L		99	70 - 130	3	20	
Naphthalene	25.0	26.6		ug/L		107	70 - 130	1	20	
n-Butylbenzene	25.0	26.5		ug/L		106	70 - 130	7	20	
N-Propylbenzene	25.0	24.7		ug/L		99	70 - 130	6	20	
o-Xylene	25.0	25.0		ug/L		100	70 - 130	3	20	
sec-Butylbenzene	25.0	25.4		ug/L		102	70 - 130	5	20	
Styrene	25.0	25.4		ug/L		102	70 - 130	4	20	
Tert-amyl methyl ether	25.0	27.7		ug/L		111	70 - 130	1	20	
Tert-butyl ethyl ether	25.0	25.5		ug/L		102	70 - 130	1	20	
tert-Butylbenzene	25.0	27.0		ug/L		108	70 - 130	7	20	
Tetrachloroethene	25.0	27.8		ug/L		111	70 - 130	6	20	
Tetrahydrofuran	50.0	68.4	*	ug/L		137	70 - 130	4	20	

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-408945/6

Matrix: Water

Analysis Batch: 408945

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD
	Added	Result	Qualifier						
Toluene	25.0	25.0		ug/L		100	70 - 130	6	20
trans-1,2-Dichloroethene	25.0	25.9		ug/L		104	70 - 130	5	20
trans-1,3-Dichloropropene	25.0	24.8		ug/L		99	70 - 130	1	20
Trichloroethene	25.0	26.7		ug/L		107	70 - 130	7	20
Trichlorofluoromethane	25.0	29.4		ug/L		117	70 - 130	11	20
Vinyl chloride	25.0	23.8		ug/L		95	70 - 130	7	20
<hr/>									
Surrogate									
	LCSD	LCSD							
	%Recovery	Qualifier		Limits					
1,2-Dichloroethane-d4 (Surr)	108			70 - 130					
4-Bromofluorobenzene (Surr)	102			70 - 130					
Toluene-d8 (Surr)	98			70 - 130					
Dibromofluoromethane (Surr)	108			70 - 130					

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-408406/1-A

Matrix: Water

Analysis Batch: 408676

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 408406

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Chromium			ND		5.0	1.0	ug/L		04/12/18 10:42	04/12/18 17:53	1

Lab Sample ID: LCS 480-408406/2-A

Matrix: Water

Analysis Batch: 408676

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 408406

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits	RPD
	Added	Result	Qualifier					
Chromium	200	201		ug/L		101	80 - 120	

Lab Sample ID: LCSD 480-408406/3-A

Matrix: Water

Analysis Batch: 408676

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 408406

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD
	Added	Result	Qualifier					
Chromium	200	199		ug/L		99	80 - 120	1

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 480-408091/3

Matrix: Water

Analysis Batch: 408091

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Chromium, hexavalent			ND		0.010	0.0050	mg/L			04/10/18 15:15	1

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS 480-408091/4

Matrix: Water

Analysis Batch: 408091

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier				mg/L		
Chromium, hexavalent	0.200	0.208		mg/L		104	80 - 120		

Lab Sample ID: LCSD 480-408091/5

Matrix: Water

Analysis Batch: 408091

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier				mg/L		
Chromium, hexavalent	0.200	0.201		mg/L		100	80 - 120	3	20

Lab Sample ID: 480-133840-1 DU

Matrix: Water

Analysis Batch: 408091

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Chromium, hexavalent	0.25	H	0.251		mg/L		0.9	20

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Client Sample ID: C040918-OSW7

Prep Type: Total/NA

QC Association Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

GC/MS VOA

Analysis Batch: 408914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133840-2	C040918-DMWB	Total/NA	Water	8260C	
480-133840-3	C040918-DMWA	Total/NA	Water	8260C	
480-133840-4	C040918-CLW8	Total/NA	Water	8260C	
480-133840-5	TB	Total/NA	Water	8260C	
MB 480-408914/8	Method Blank	Total/NA	Water	8260C	
LCS 480-408914/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-408914/6	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 408945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133840-1	C040918-OSW7	Total/NA	Water	8260C	
480-133840-2 - DL	C040918-DMWB	Total/NA	Water	8260C	
MB 480-408945/8	Method Blank	Total/NA	Water	8260C	
LCS 480-408945/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-408945/6	Lab Control Sample Dup	Total/NA	Water	8260C	

Metals

Prep Batch: 408406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133840-1	C040918-OSW7	Total/NA	Water	3005A	
480-133840-2	C040918-DMWB	Total/NA	Water	3005A	
480-133840-3	C040918-DMWA	Total/NA	Water	3005A	
480-133840-4	C040918-CLW8	Total/NA	Water	3005A	
MB 480-408406/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-408406/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-408406/3-A	Lab Control Sample Dup	Total/NA	Water	3005A	

Analysis Batch: 408676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133840-1	C040918-OSW7	Total/NA	Water	6010	408406
480-133840-2	C040918-DMWB	Total/NA	Water	6010	408406
480-133840-3	C040918-DMWA	Total/NA	Water	6010	408406
480-133840-4	C040918-CLW8	Total/NA	Water	6010	408406
MB 480-408406/1-A	Method Blank	Total/NA	Water	6010	408406
LCS 480-408406/2-A	Lab Control Sample	Total/NA	Water	6010	408406
LCSD 480-408406/3-A	Lab Control Sample Dup	Total/NA	Water	6010	408406

General Chemistry

Analysis Batch: 408091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133840-1	C040918-OSW7	Total/NA	Water	7196A	
480-133840-2	C040918-DMWB	Total/NA	Water	7196A	
480-133840-3	C040918-DMWA	Total/NA	Water	7196A	
480-133840-4	C040918-CLW8	Total/NA	Water	7196A	
MB 480-408091/3	Method Blank	Total/NA	Water	7196A	
LCS 480-408091/4	Lab Control Sample	Total/NA	Water	7196A	
LCSD 480-408091/5	Lab Control Sample Dup	Total/NA	Water	7196A	
480-133840-4 MS	C040918-CLW8	Total/NA	Water	7196A	

TestAmerica Buffalo

QC Association Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

General Chemistry (Continued)

Analysis Batch: 408091 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133840-1 DU	C040918-OSW7	Total/NA	Water	7196A	

1

2

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15

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Client Sample ID: C040918-OSW7

Lab Sample ID: 480-133840-1

Matrix: Water

Date Collected: 04/09/18 09:20

Date Received: 04/10/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	408945	04/16/18 11:43	AEM	TAL BUF
Total/NA	Prep	3005A			408406	04/12/18 10:42	JAK	TAL BUF
Total/NA	Analysis	6010		1	408676	04/12/18 19:32	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408091	04/10/18 15:15	MDL	TAL BUF

Client Sample ID: C040918-DMWB

Lab Sample ID: 480-133840-2

Matrix: Water

Date Collected: 04/09/18 11:20

Date Received: 04/10/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	408914	04/15/18 19:05	RRS	TAL BUF
Total/NA	Analysis	8260C	DL	4	408945	04/16/18 12:07	AEM	TAL BUF
Total/NA	Prep	3005A			408406	04/12/18 10:42	JAK	TAL BUF
Total/NA	Analysis	6010		1	408676	04/12/18 19:35	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408091	04/10/18 15:15	MDL	TAL BUF

Client Sample ID: C040918-DMWA

Lab Sample ID: 480-133840-3

Matrix: Water

Date Collected: 04/09/18 13:15

Date Received: 04/10/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	408914	04/15/18 19:30	RRS	TAL BUF
Total/NA	Prep	3005A			408406	04/12/18 10:42	JAK	TAL BUF
Total/NA	Analysis	6010		1	408676	04/12/18 19:39	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408091	04/10/18 15:15	MDL	TAL BUF

Client Sample ID: C040918-CLW8

Lab Sample ID: 480-133840-4

Matrix: Water

Date Collected: 04/09/18 14:50

Date Received: 04/10/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	408914	04/15/18 19:55	RRS	TAL BUF
Total/NA	Prep	3005A			408406	04/12/18 10:42	JAK	TAL BUF
Total/NA	Analysis	6010		1	408676	04/12/18 19:43	LMH	TAL BUF
Total/NA	Analysis	7196A		5	408091	04/10/18 15:15	MDL	TAL BUF

Client Sample ID: TB

Lab Sample ID: 480-133840-5

Matrix: Water

Date Collected: 04/09/18 00:00

Date Received: 04/10/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	408914	04/15/18 20:20	RRS	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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Accreditation/Certification Summary

Client: Honeywell International Inc
 Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Massachusetts	State Program	1	M-NY044	06-30-18
The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:				
Analysis Method	Prep Method	Matrix	Analyte	
6010	3005A	Water	Chromium	
7196A		Water	Chromium, hexavalent	
8260C		Water	1,1,1,2-Tetrachloroethane	
8260C		Water	1,1,1-Trichloroethane	
8260C		Water	1,1,2,2-Tetrachloroethane	
8260C		Water	1,1,2-Trichloroethane	
8260C		Water	1,1-Dichloroethane	
8260C		Water	1,1-Dichloroethene	
8260C		Water	1,1-Dichloropropene	
8260C		Water	1,2,3-Trichlorobenzene	
8260C		Water	1,2,3-Trichloropropane	
8260C		Water	1,2,4-Trichlorobenzene	
8260C		Water	1,2,4-Trimethylbenzene	
8260C		Water	1,2-Dibromo-3-Chloropropane	
8260C		Water	1,2-Dichlorobenzene	
8260C		Water	1,2-Dichloroethane	
8260C		Water	1,2-Dichloropropane	
8260C		Water	1,3,5-Trimethylbenzene	
8260C		Water	1,3-Dichlorobenzene	
8260C		Water	1,3-Dichloropropane	
8260C		Water	1,4-Dichlorobenzene	
8260C		Water	1,4-Dioxane	
8260C		Water	2,2-Dichloropropane	
8260C		Water	2-Butanone (MEK)	
8260C		Water	2-Chlorotoluene	
8260C		Water	2-Hexanone	
8260C		Water	4-Chlorotoluene	
8260C		Water	4-Isopropyltoluene	
8260C		Water	4-Methyl-2-pentanone (MIBK)	
8260C		Water	Acetone	
8260C		Water	Benzene	
8260C		Water	Bromobenzene	
8260C		Water	Bromoform	
8260C		Water	Bromomethane	
8260C		Water	Carbon disulfide	
8260C		Water	Carbon tetrachloride	
8260C		Water	Chlorobenzene	
8260C		Water	Chlorobromomethane	
8260C		Water	Chlorodibromomethane	
8260C		Water	Chloroethane	
8260C		Water	Chloroform	
8260C		Water	Chloromethane	
8260C		Water	cis-1,2-Dichloroethene	
8260C		Water	cis-1,3-Dichloropropene	
8260C		Water	Dibromomethane	
8260C		Water	Dichlorobromomethane	

Accreditation/Certification Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Laboratory: TestAmerica Buffalo (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Massachusetts	State Program	1	M-NY044	06-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	Dichlorodifluoromethane
8260C		Water	Ethyl ether
8260C		Water	Ethylbenzene
8260C		Water	Ethylene Dibromide
8260C		Water	Hexachlorobutadiene
8260C		Water	Isopropyl ether
8260C		Water	Isopropylbenzene
8260C		Water	Methyl tert-butyl ether
8260C		Water	Methylene Chloride
8260C		Water	m-Xylene & p-Xylene
8260C		Water	Naphthalene
8260C		Water	n-Butylbenzene
8260C		Water	N-Propylbenzene
8260C		Water	o-Xylene
8260C		Water	sec-Butylbenzene
8260C		Water	Styrene
8260C		Water	Tert-amyl methyl ether
8260C		Water	Tert-butyl ethyl ether
8260C		Water	tert-Butylbenzene
8260C		Water	Tetrachloroethene
8260C		Water	Tetrahydrofuran
8260C		Water	Toluene
8260C		Water	trans-1,2-Dichloroethene
8260C		Water	trans-1,3-Dichloropropene
8260C		Water	Trichloroethene
8260C		Water	Trichlorofluoromethane
8260C		Water	Vinyl chloride

Method Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
6010	Metals (ICP)	SW846	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

MA DEP = Massachusetts Department Of Environmental Protection

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-133840-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-133840-1	C040918-OSW7	Water	04/09/18 09:20	04/10/18 10:30
480-133840-2	C040918-DMWB	Water	04/09/18 11:20	04/10/18 10:30
480-133840-3	C040918-DMWA	Water	04/09/18 13:15	04/10/18 10:30
480-133840-4	C040918-CLW8	Water	04/09/18 14:50	04/10/18 10:30
480-133840-5	TB	Water	04/09/18 00:00	04/10/18 10:30

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TestAmerica Buffalo
110 Hazelwood Drive
Amherst, NY 14228

Amherst, N.Y. 14220

Honeywell

Chain Of Custody / Analysis Request

Tel 716.504.9838 | Fax 716.691.7991; Contact: JOHN SCHOVE
Amanco, Inc., 1-72220

Special Instructions: MCP Protocol, GW-1 Detection Limits, MCP QA/QC Report, - LOWEST RL POSSIBLE
SW846/8260R Volatile Organic Compounds, 7196A Hexavalent Chromium, SW846/6901B Total Chromium. Enclosed Trip Blank Sampled by Lab.

Relinquished by:	Company	AmsecFV	Received by	Date/Time	Company
<i>John Rovner</i>	Date/Time	4-9-18 14:55	<i>Bob</i>	<i>4-9-18 14:55</i>	<i>Amsec</i>
Relinquished by:	Company		<i>Mark Miller</i>	Date/Time	Company

Relinquished by:	Company	Accepted by:
<u>John Rother</u>		
Relinquished by:	Date/Time	Date/Time
	4-9-18	14:55

<i>[Signature]</i>	Company
<i>[Signature]</i>	Date/Time
<i>[Signature]</i>	Company
<i>[Signature]</i>	Date/Time

Relinquished by:	Company	Accepted by:
<u>John Rother</u>		
Relinquished by:	Date/Time	Date/Time
	4-9-18	14:55

Condition	Custody Seals Intact	
Cooler Temp.		
Condition	Custody Seals Intact	
Cooler Temp.		

Received by	<i>[Signature]</i>	Company
Date/Time	<i>[Date]</i>	Company
Received by	<i>[Signature]</i>	Date/Time

Relinquished by:	<u>John Porter</u>	Company	Amoco FW
Date/Time			4-9-18 14:55
Relinquished by:	<u>J</u>	Company	Date/Time

Page 39 of 40

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 480-133840-1

Login Number: 133840

List Source: TestAmerica Buffalo

List Number: 1

Creator: Wallace, Cameron

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	HONEYWELL
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-133885-1

Client Project/Site: April 2018 Semi Annual

Revision: 1

For:

Honeywell International Inc
Remediation & Evaluation Services
115 Tabor Road
Morris Plains, New Jersey 07950

Attn: Ms. Maria Kaouris



Authorized for release by:

4/20/2018 9:43:37 AM

Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II
(716)504-9838

john.schove@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	RPD of the LCS and LCSD exceeds the control limits
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Job ID: 480-133885-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-133885-1

Revision

This report has been revised to correct the sample ID's.

Receipt

The samples were received on 4/11/2018 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6° C.

GC/MS VOA

Method(s) 8260C: With the exception of diluted samples, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for Carbon disulfide, Isopropyl ether, Naphthalene, tert-Butyl ethyl ether, tert-Amyl methyl Ether, & Tetrahydrofuran

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-409160 recovered outside the MCP control limit criteria for the following analytes: 1,4-Dioxane, Acetone and Chloromethane. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. Difficult analytes are allowed to be outside the 20% difference but not over 60% difference. The following samples were affected : C041018-CLW5B (480-133885-1), C041018-CLW20 (480-133885-2), C041018-CLW5A (480-133885-3), C041018-CLW20B (480-133885-4), C041018-CLW19 (480-133885-5), C041018-OSW1B (480-133885-6), C041018-CLW19B (480-133885-7), C041018-CLW19B DUP (480-133885-8) and C041018-OSW1 (480-133885-9).

Method(s) 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batch 480-409160 exceeded control limits for the following analyte: 2-Butanone and Tetrahydrofuran. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate and Methacrylonitrile in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following samples were affected : C041018-CLW5B (480-133885-1), C041018-CLW20 (480-133885-2), C041018-CLW5A (480-133885-3), C041018-CLW20B (480-133885-4), C041018-CLW19 (480-133885-5), C041018-OSW1B (480-133885-6), C041018-CLW19B (480-133885-7), C041018-CLW19B DUP (480-133885-8) and C041018-OSW1 (480-133885-9).

Method(s) 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batch 480-409160 exceeded control limits for the following analytes: Acetone. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following samples were affected : C041018-CLW5B (480-133885-1), C041018-CLW20 (480-133885-2), C041018-CLW5A (480-133885-3), C041018-CLW20B (480-133885-4), C041018-CLW19 (480-133885-5), C041018-OSW1B (480-133885-6), C041018-CLW19B (480-133885-7), C041018-CLW19B DUP (480-133885-8) and C041018-OSW1 (480-133885-9).

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: C041018-CLW5B (480-133885-1) and C041018-OSW1B (480-133885-6). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The matrix spike/matrix spike duplicate (MS/MSD) precision for analytical batch 480-409160 was outside control limits. The following samples were affected : C041018-CLW19B MS (480-133885-7[MS]) and C041018-CLW19B MSD (480-133885-7[MSD]).

Method(s) 8260C: The matrix spike/matrix spike duplicate (MS/MSD) recoveries for analytical batch 480-409160 were outside control limits due to the coelution of Ethyl Acetate with 2-Butanone, and Methacrylonitrile with Tetrahydrofuran in the full spike solution.

Method(s) 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch analytical batch 480-409160 recovered outside control limits for the following analytes: 1,4-Dioxane.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010: At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

Case Narrative

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Job ID: 480-133885-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

MassDEP Analytical Protocol Certification Form

Laboratory Name: TestAmerica Buffalo		Project #: 480-133885-1			
Project Location: Groton		RTN:			
This form provides certifications for the following data set: list Laboratory Sample ID Number(s): 480-133885-1(1-9, 7MS/MSD)					
Matrices: <input checked="" type="checkbox"/> Groundwater/Surface Water <input type="checkbox"/> Soil/Sediment <input type="checkbox"/> Drinking Water <input type="checkbox"/> Air <input type="checkbox"/> Other:					
CAM Protocols (check all that apply below):					
8260 VOC CAM II A <input checked="" type="checkbox"/>	7470/7471 Hg CAM III B	Mass DEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input checked="" type="checkbox"/>	Mass DEP APH CAM IX A <input type="checkbox"/>
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	Mass DEP EPH CAM IV B <input type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>
6010 Metals CAM III A <input checked="" type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9014 Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>	
Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status					
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
E	a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?			<input type="checkbox"/> Yes	<input type="checkbox"/> No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Responses to Questions G, H and I below are required for "Presumptive Certainty" status					
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350					
H	Were all QC performance standards specified in the CAM protocol(s) achieved?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
¹ All negative responses must be addressed in an attached laboratory narrative.					
I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.					
Signature:			Position:	Project Management Assistant	
Printed Name:	Rebecca Jones		Date:	4/19/18 14:22	

Detection Summary

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-CLW5B

Lab Sample ID: 480-133885-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	3.9	J	5.0	1.5	ug/L	5		8260C	Total/NA
Chloroethane	9.3	J	10	1.6	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	170		5.0	4.1	ug/L	5		8260C	Total/NA
trans-1,2-Dichloroethene	10		5.0	4.5	ug/L	5		8260C	Total/NA
Trichloroethene	250		5.0	2.3	ug/L	5		8260C	Total/NA
Chromium	30		5.0	1.0	ug/L	1		6010	Total/NA

Client Sample ID: C041018-CLW20

Lab Sample ID: 480-133885-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.9		1.0	0.46	ug/L	1		8260C	Total/NA
Chromium	2.4	J	5.0	1.0	ug/L	1		6010	Total/NA

Client Sample ID: C041018-CLW5A

Lab Sample ID: 480-133885-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.5		1.0	0.46	ug/L	1		8260C	Total/NA
Chromium	96		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, hexavalent	0.091		0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: C041018-CLW20B

Lab Sample ID: 480-133885-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.68	J	1.0	0.38	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	0.18	J	1.0	0.16	ug/L	1		8260C	Total/NA

Client Sample ID: C041018-CLW19

Lab Sample ID: 480-133885-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.75	J	1.0	0.46	ug/L	1		8260C	Total/NA
Chromium	14		5.0	1.0	ug/L	1		6010	Total/NA

Client Sample ID: C041018-OSW1B

Lab Sample ID: 480-133885-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	280		50	41	ug/L	50		8260C	Total/NA
Trichloroethene	3500		50	23	ug/L	50		8260C	Total/NA
Chromium	1.4	J	5.0	1.0	ug/L	1		6010	Total/NA

Client Sample ID: C041018-CLW19B

Lab Sample ID: 480-133885-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.1		1.0	0.46	ug/L	1		8260C	Total/NA
Chromium	12		5.0	1.0	ug/L	1		6010	Total/NA

Client Sample ID: C041018-CLW19B DUP

Lab Sample ID: 480-133885-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.96	J	1.0	0.46	ug/L	1		8260C	Total/NA
Chromium	12		5.0	1.0	ug/L	1		6010	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-OSW1

Lab Sample ID: 480-133885-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	3.0		1.0	0.46	ug/L	1		8260C	Total/NA
Chromium	150		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, hexavalent	0.13		0.010	0.0050	mg/L	1		7196A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-CLW5B

Lab Sample ID: 480-133885-1

Date Collected: 04/10/18 09:05

Matrix: Water

Date Received: 04/11/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	1.8	ug/L			04/17/18 11:14	5
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			04/17/18 11:14	5
1,1,2,2-Tetrachloroethane	ND		2.5	1.1	ug/L			04/17/18 11:14	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			04/17/18 11:14	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			04/17/18 11:14	5
1,1-Dichloroethene	3.9 J		5.0	1.5	ug/L			04/17/18 11:14	5
1,1-Dichloropropene	ND		5.0	3.6	ug/L			04/17/18 11:14	5
1,2,3-Trichlorobenzene	ND		5.0	2.1	ug/L			04/17/18 11:14	5
1,2,3-Trichloropropane	ND		5.0	4.5	ug/L			04/17/18 11:14	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			04/17/18 11:14	5
1,2,4-Trimethylbenzene	ND		5.0	3.8	ug/L			04/17/18 11:14	5
1,2-Dibromo-3-Chloropropane	ND		25	2.0	ug/L			04/17/18 11:14	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			04/17/18 11:14	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			04/17/18 11:14	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			04/17/18 11:14	5
1,3,5-Trimethylbenzene	ND		5.0	3.9	ug/L			04/17/18 11:14	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			04/17/18 11:14	5
1,3-Dichloropropane	ND		5.0	3.8	ug/L			04/17/18 11:14	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			04/17/18 11:14	5
1,4-Dioxane	ND *		250	47	ug/L			04/17/18 11:14	5
2,2-Dichloropropane	ND		5.0	2.0	ug/L			04/17/18 11:14	5
2-Butanone (MEK)	ND *		50	6.6	ug/L			04/17/18 11:14	5
2-Chlorotoluene	ND		5.0	4.3	ug/L			04/17/18 11:14	5
2-Hexanone	ND		50	6.2	ug/L			04/17/18 11:14	5
4-Chlorotoluene	ND		5.0	4.2	ug/L			04/17/18 11:14	5
4-Isopropyltoluene	ND		5.0	1.6	ug/L			04/17/18 11:14	5
4-Methyl-2-pentanone (MIBK)	ND		50	11	ug/L			04/17/18 11:14	5
Acetone	ND *		250	15	ug/L			04/17/18 11:14	5
Benzene	ND		5.0	2.1	ug/L			04/17/18 11:14	5
Bromobenzene	ND		5.0	4.0	ug/L			04/17/18 11:14	5
Bromoform	ND		5.0	1.3	ug/L			04/17/18 11:14	5
Bromomethane	ND		10	3.5	ug/L			04/17/18 11:14	5
Carbon disulfide	ND		50	0.95	ug/L			04/17/18 11:14	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			04/17/18 11:14	5
Chlorobenzene	ND		5.0	3.8	ug/L			04/17/18 11:14	5
Chlorobromomethane	ND		5.0	4.4	ug/L			04/17/18 11:14	5
Chlorodibromomethane	ND		2.5	1.6	ug/L			04/17/18 11:14	5
Chloroethane	9.3 J		10	1.6	ug/L			04/17/18 11:14	5
Chloroform	ND		5.0	1.7	ug/L			04/17/18 11:14	5
Chloromethane	ND		10	1.8	ug/L			04/17/18 11:14	5
cis-1,2-Dichloroethene	170		5.0	4.1	ug/L			04/17/18 11:14	5
cis-1,3-Dichloropropene	ND		2.0	1.8	ug/L			04/17/18 11:14	5
Dibromomethane	ND		5.0	2.1	ug/L			04/17/18 11:14	5
Dichlorobromomethane	ND		2.5	2.0	ug/L			04/17/18 11:14	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			04/17/18 11:14	5
Ethyl ether	ND		5.0	3.6	ug/L			04/17/18 11:14	5
Ethylbenzene	ND		5.0	3.7	ug/L			04/17/18 11:14	5
Ethylene Dibromide	ND		5.0	3.7	ug/L			04/17/18 11:14	5
Hexachlorobutadiene	ND		2.0	1.4	ug/L			04/17/18 11:14	5

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-CLW5B

Lab Sample ID: 480-133885-1

Date Collected: 04/10/18 09:05

Matrix: Water

Date Received: 04/11/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		50	3.0	ug/L			04/17/18 11:14	5
Isopropylbenzene	ND		5.0	4.0	ug/L			04/17/18 11:14	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			04/17/18 11:14	5
Methylene Chloride	ND		5.0	2.2	ug/L			04/17/18 11:14	5
m-Xylene & p-Xylene	ND		10	3.3	ug/L			04/17/18 11:14	5
Naphthalene	ND		25	2.2	ug/L			04/17/18 11:14	5
n-Butylbenzene	ND		5.0	3.2	ug/L			04/17/18 11:14	5
N-Propylbenzene	ND		5.0	3.5	ug/L			04/17/18 11:14	5
o-Xylene	ND		5.0	3.8	ug/L			04/17/18 11:14	5
sec-Butylbenzene	ND		5.0	3.8	ug/L			04/17/18 11:14	5
Styrene	ND		5.0	3.7	ug/L			04/17/18 11:14	5
Tert-amyl methyl ether	ND		25	1.4	ug/L			04/17/18 11:14	5
Tert-butyl ethyl ether	ND		25	1.5	ug/L			04/17/18 11:14	5
tert-Butylbenzene	ND		5.0	4.1	ug/L			04/17/18 11:14	5
Tetrachloroethene	ND	*	5.0	1.8	ug/L			04/17/18 11:14	5
Tetrahydrofuran	ND	*	50	6.3	ug/L			04/17/18 11:14	5
Toluene	ND		5.0	2.6	ug/L			04/17/18 11:14	5
trans-1,2-Dichloroethene	10		5.0	4.5	ug/L			04/17/18 11:14	5
trans-1,3-Dichloropropene	ND		2.0	1.9	ug/L			04/17/18 11:14	5
Trichloroethene	250		5.0	2.3	ug/L			04/17/18 11:14	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			04/17/18 11:14	5
Vinyl chloride	ND		5.0	4.5	ug/L			04/17/18 11:14	5
Surrogate	%Recovery	Qualifier			Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107				70 - 130			04/17/18 11:14	5
4-Bromofluorobenzene (Surr)	100				70 - 130			04/17/18 11:14	5
Toluene-d8 (Surr)	100				70 - 130			04/17/18 11:14	5
Dibromofluoromethane (Surr)	107				70 - 130			04/17/18 11:14	5

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	30		5.0	1.0	ug/L		04/11/18 09:40	04/12/18 19:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			04/11/18 07:31	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-CLW20

Lab Sample ID: 480-133885-2

Matrix: Water

Date Collected: 04/10/18 09:25

Date Received: 04/11/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/17/18 11:37	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/17/18 11:37	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/17/18 11:37	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/17/18 11:37	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/17/18 11:37	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/17/18 11:37	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/17/18 11:37	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/17/18 11:37	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/17/18 11:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/17/18 11:37	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/17/18 11:37	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/17/18 11:37	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/17/18 11:37	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/17/18 11:37	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/17/18 11:37	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/17/18 11:37	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/17/18 11:37	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/17/18 11:37	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/17/18 11:37	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/17/18 11:37	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/17/18 11:37	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/17/18 11:37	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/17/18 11:37	1
2-Hexanone	ND		10	1.2	ug/L			04/17/18 11:37	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/17/18 11:37	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/17/18 11:37	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/17/18 11:37	1
Acetone	ND *		50	3.0	ug/L			04/17/18 11:37	1
Benzene	ND		1.0	0.41	ug/L			04/17/18 11:37	1
Bromobenzene	ND		1.0	0.80	ug/L			04/17/18 11:37	1
Bromoform	ND		1.0	0.26	ug/L			04/17/18 11:37	1
Bromomethane	ND		2.0	0.69	ug/L			04/17/18 11:37	1
Carbon disulfide	ND		10	0.19	ug/L			04/17/18 11:37	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/17/18 11:37	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/17/18 11:37	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/17/18 11:37	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/17/18 11:37	1
Chloroethane	ND		2.0	0.32	ug/L			04/17/18 11:37	1
Chloroform	ND		1.0	0.34	ug/L			04/17/18 11:37	1
Chloromethane	ND		2.0	0.35	ug/L			04/17/18 11:37	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/17/18 11:37	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/17/18 11:37	1
Dibromomethane	ND		1.0	0.41	ug/L			04/17/18 11:37	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/17/18 11:37	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/17/18 11:37	1
Ethyl ether	ND		1.0	0.72	ug/L			04/17/18 11:37	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/17/18 11:37	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/17/18 11:37	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/17/18 11:37	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-CLW20

Lab Sample ID: 480-133885-2

Date Collected: 04/10/18 09:25

Matrix: Water

Date Received: 04/11/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/17/18 11:37	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/17/18 11:37	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/17/18 11:37	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/17/18 11:37	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/17/18 11:37	1
Naphthalene	ND		5.0	0.43	ug/L			04/17/18 11:37	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/17/18 11:37	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/17/18 11:37	1
o-Xylene	ND		1.0	0.76	ug/L			04/17/18 11:37	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/17/18 11:37	1
Styrene	ND		1.0	0.73	ug/L			04/17/18 11:37	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/17/18 11:37	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/17/18 11:37	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/17/18 11:37	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/17/18 11:37	1
Tetrahydrofuran	ND *		10	1.3	ug/L			04/17/18 11:37	1
Toluene	ND		1.0	0.51	ug/L			04/17/18 11:37	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/17/18 11:37	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/17/18 11:37	1
Trichloroethene	1.9		1.0	0.46	ug/L			04/17/18 11:37	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/17/18 11:37	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/17/18 11:37	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104			70 - 130				04/17/18 11:37	1
4-Bromofluorobenzene (Surr)	99			70 - 130				04/17/18 11:37	1
Toluene-d8 (Surr)	96			70 - 130				04/17/18 11:37	1
Dibromofluoromethane (Surr)	104			70 - 130				04/17/18 11:37	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	2.4	J	5.0	1.0	ug/L		04/11/18 09:40	04/12/18 20:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			04/11/18 07:31	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-CLW5A

Lab Sample ID: 480-133885-3

Matrix: Water

Date Collected: 04/10/18 09:45

Date Received: 04/11/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/17/18 12:01	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/17/18 12:01	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/17/18 12:01	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/17/18 12:01	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/17/18 12:01	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/17/18 12:01	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/17/18 12:01	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/17/18 12:01	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/17/18 12:01	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/17/18 12:01	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/17/18 12:01	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/17/18 12:01	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/17/18 12:01	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/17/18 12:01	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/17/18 12:01	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/17/18 12:01	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/17/18 12:01	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/17/18 12:01	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/17/18 12:01	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/17/18 12:01	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/17/18 12:01	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/17/18 12:01	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/17/18 12:01	1
2-Hexanone	ND		10	1.2	ug/L			04/17/18 12:01	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/17/18 12:01	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/17/18 12:01	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/17/18 12:01	1
Acetone	ND *		50	3.0	ug/L			04/17/18 12:01	1
Benzene	ND		1.0	0.41	ug/L			04/17/18 12:01	1
Bromobenzene	ND		1.0	0.80	ug/L			04/17/18 12:01	1
Bromoform	ND		1.0	0.26	ug/L			04/17/18 12:01	1
Bromomethane	ND		2.0	0.69	ug/L			04/17/18 12:01	1
Carbon disulfide	ND		10	0.19	ug/L			04/17/18 12:01	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/17/18 12:01	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/17/18 12:01	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/17/18 12:01	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/17/18 12:01	1
Chloroethane	ND		2.0	0.32	ug/L			04/17/18 12:01	1
Chloroform	ND		1.0	0.34	ug/L			04/17/18 12:01	1
Chloromethane	ND		2.0	0.35	ug/L			04/17/18 12:01	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/17/18 12:01	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/17/18 12:01	1
Dibromomethane	ND		1.0	0.41	ug/L			04/17/18 12:01	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/17/18 12:01	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/17/18 12:01	1
Ethyl ether	ND		1.0	0.72	ug/L			04/17/18 12:01	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/17/18 12:01	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/17/18 12:01	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/17/18 12:01	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-CLW5A

Lab Sample ID: 480-133885-3

Date Collected: 04/10/18 09:45

Matrix: Water

Date Received: 04/11/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/17/18 12:01	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/17/18 12:01	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/17/18 12:01	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/17/18 12:01	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/17/18 12:01	1
Naphthalene	ND		5.0	0.43	ug/L			04/17/18 12:01	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/17/18 12:01	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/17/18 12:01	1
o-Xylene	ND		1.0	0.76	ug/L			04/17/18 12:01	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/17/18 12:01	1
Styrene	ND		1.0	0.73	ug/L			04/17/18 12:01	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/17/18 12:01	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/17/18 12:01	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/17/18 12:01	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/17/18 12:01	1
Tetrahydrofuran	ND *		10	1.3	ug/L			04/17/18 12:01	1
Toluene	ND		1.0	0.51	ug/L			04/17/18 12:01	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/17/18 12:01	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/17/18 12:01	1
Trichloroethene	1.5		1.0	0.46	ug/L			04/17/18 12:01	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/17/18 12:01	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/17/18 12:01	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105			70 - 130				04/17/18 12:01	1
4-Bromofluorobenzene (Surr)	98			70 - 130				04/17/18 12:01	1
Toluene-d8 (Surr)	94			70 - 130				04/17/18 12:01	1
Dibromofluoromethane (Surr)	106			70 - 130				04/17/18 12:01	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	96		5.0	1.0	ug/L		04/11/18 09:40	04/12/18 20:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.091		0.010	0.0050	mg/L			04/11/18 07:31	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-CLW20B

Lab Sample ID: 480-133885-4

Matrix: Water

Date Collected: 04/10/18 10:25

Date Received: 04/11/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/17/18 12:24	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/17/18 12:24	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/17/18 12:24	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/17/18 12:24	1
1,1-Dichloroethane	0.68	J	1.0	0.38	ug/L			04/17/18 12:24	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/17/18 12:24	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/17/18 12:24	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/17/18 12:24	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/17/18 12:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/17/18 12:24	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/17/18 12:24	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/17/18 12:24	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/17/18 12:24	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/17/18 12:24	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/17/18 12:24	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/17/18 12:24	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/17/18 12:24	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/17/18 12:24	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/17/18 12:24	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/17/18 12:24	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/17/18 12:24	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/17/18 12:24	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/17/18 12:24	1
2-Hexanone	ND		10	1.2	ug/L			04/17/18 12:24	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/17/18 12:24	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/17/18 12:24	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/17/18 12:24	1
Acetone	ND *		50	3.0	ug/L			04/17/18 12:24	1
Benzene	ND		1.0	0.41	ug/L			04/17/18 12:24	1
Bromobenzene	ND		1.0	0.80	ug/L			04/17/18 12:24	1
Bromoform	ND		1.0	0.26	ug/L			04/17/18 12:24	1
Bromomethane	ND		2.0	0.69	ug/L			04/17/18 12:24	1
Carbon disulfide	ND		10	0.19	ug/L			04/17/18 12:24	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/17/18 12:24	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/17/18 12:24	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/17/18 12:24	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/17/18 12:24	1
Chloroethane	ND		2.0	0.32	ug/L			04/17/18 12:24	1
Chloroform	ND		1.0	0.34	ug/L			04/17/18 12:24	1
Chloromethane	ND		2.0	0.35	ug/L			04/17/18 12:24	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/17/18 12:24	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/17/18 12:24	1
Dibromomethane	ND		1.0	0.41	ug/L			04/17/18 12:24	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/17/18 12:24	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/17/18 12:24	1
Ethyl ether	ND		1.0	0.72	ug/L			04/17/18 12:24	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/17/18 12:24	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/17/18 12:24	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/17/18 12:24	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-CLW20B

Lab Sample ID: 480-133885-4

Date Collected: 04/10/18 10:25
Date Received: 04/11/18 01:00

Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/17/18 12:24	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/17/18 12:24	1
Methyl tert-butyl ether	0.18	J	1.0	0.16	ug/L			04/17/18 12:24	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/17/18 12:24	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/17/18 12:24	1
Naphthalene	ND		5.0	0.43	ug/L			04/17/18 12:24	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/17/18 12:24	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/17/18 12:24	1
o-Xylene	ND		1.0	0.76	ug/L			04/17/18 12:24	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/17/18 12:24	1
Styrene	ND		1.0	0.73	ug/L			04/17/18 12:24	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/17/18 12:24	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/17/18 12:24	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/17/18 12:24	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/17/18 12:24	1
Tetrahydrofuran	ND *		10	1.3	ug/L			04/17/18 12:24	1
Toluene	ND		1.0	0.51	ug/L			04/17/18 12:24	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/17/18 12:24	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/17/18 12:24	1
Trichloroethene	ND		1.0	0.46	ug/L			04/17/18 12:24	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/17/18 12:24	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/17/18 12:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130					04/17/18 12:24	1
4-Bromofluorobenzene (Surr)	96		70 - 130					04/17/18 12:24	1
Toluene-d8 (Surr)	94		70 - 130					04/17/18 12:24	1
Dibromofluoromethane (Surr)	101		70 - 130					04/17/18 12:24	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		5.0	1.0	ug/L		04/11/18 09:40	04/12/18 20:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			04/11/18 07:31	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-CLW19

Lab Sample ID: 480-133885-5

Matrix: Water

Date Collected: 04/10/18 11:45

Date Received: 04/11/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/17/18 12:48	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/17/18 12:48	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/17/18 12:48	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/17/18 12:48	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/17/18 12:48	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/17/18 12:48	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/17/18 12:48	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/17/18 12:48	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/17/18 12:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/17/18 12:48	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/17/18 12:48	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/17/18 12:48	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/17/18 12:48	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/17/18 12:48	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/17/18 12:48	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/17/18 12:48	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/17/18 12:48	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/17/18 12:48	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/17/18 12:48	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/17/18 12:48	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/17/18 12:48	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/17/18 12:48	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/17/18 12:48	1
2-Hexanone	ND		10	1.2	ug/L			04/17/18 12:48	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/17/18 12:48	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/17/18 12:48	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/17/18 12:48	1
Acetone	ND *		50	3.0	ug/L			04/17/18 12:48	1
Benzene	ND		1.0	0.41	ug/L			04/17/18 12:48	1
Bromobenzene	ND		1.0	0.80	ug/L			04/17/18 12:48	1
Bromoform	ND		1.0	0.26	ug/L			04/17/18 12:48	1
Bromomethane	ND		2.0	0.69	ug/L			04/17/18 12:48	1
Carbon disulfide	ND		10	0.19	ug/L			04/17/18 12:48	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/17/18 12:48	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/17/18 12:48	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/17/18 12:48	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/17/18 12:48	1
Chloroethane	ND		2.0	0.32	ug/L			04/17/18 12:48	1
Chloroform	ND		1.0	0.34	ug/L			04/17/18 12:48	1
Chloromethane	ND		2.0	0.35	ug/L			04/17/18 12:48	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/17/18 12:48	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/17/18 12:48	1
Dibromomethane	ND		1.0	0.41	ug/L			04/17/18 12:48	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/17/18 12:48	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/17/18 12:48	1
Ethyl ether	ND		1.0	0.72	ug/L			04/17/18 12:48	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/17/18 12:48	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/17/18 12:48	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/17/18 12:48	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-CLW19

Lab Sample ID: 480-133885-5

Matrix: Water

Date Collected: 04/10/18 11:45
Date Received: 04/11/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/17/18 12:48	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/17/18 12:48	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/17/18 12:48	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/17/18 12:48	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/17/18 12:48	1
Naphthalene	ND		5.0	0.43	ug/L			04/17/18 12:48	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/17/18 12:48	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/17/18 12:48	1
o-Xylene	ND		1.0	0.76	ug/L			04/17/18 12:48	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/17/18 12:48	1
Styrene	ND		1.0	0.73	ug/L			04/17/18 12:48	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/17/18 12:48	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/17/18 12:48	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/17/18 12:48	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/17/18 12:48	1
Tetrahydrofuran	ND *		10	1.3	ug/L			04/17/18 12:48	1
Toluene	ND		1.0	0.51	ug/L			04/17/18 12:48	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/17/18 12:48	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/17/18 12:48	1
Trichloroethene	0.75 J		1.0	0.46	ug/L			04/17/18 12:48	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/17/18 12:48	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/17/18 12:48	1
Surrogate	%Recovery	Qualifier			Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110				70 - 130			04/17/18 12:48	1
4-Bromofluorobenzene (Surr)	95				70 - 130			04/17/18 12:48	1
Toluene-d8 (Surr)	93				70 - 130			04/17/18 12:48	1
Dibromofluoromethane (Surr)	109				70 - 130			04/17/18 12:48	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	14		5.0	1.0	ug/L		04/11/18 09:40	04/12/18 20:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			04/11/18 07:31	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-OSW1B

Lab Sample ID: 480-133885-6

Matrix: Water

Date Collected: 04/10/18 12:15

Date Received: 04/11/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		50	18	ug/L			04/17/18 13:11	50
1,1,1-Trichloroethane	ND		50	41	ug/L			04/17/18 13:11	50
1,1,2,2-Tetrachloroethane	ND		25	11	ug/L			04/17/18 13:11	50
1,1,2-Trichloroethane	ND		50	12	ug/L			04/17/18 13:11	50
1,1-Dichloroethane	ND		50	19	ug/L			04/17/18 13:11	50
1,1-Dichloroethene	ND		50	15	ug/L			04/17/18 13:11	50
1,1-Dichloropropene	ND		50	36	ug/L			04/17/18 13:11	50
1,2,3-Trichlorobenzene	ND		50	21	ug/L			04/17/18 13:11	50
1,2,3-Trichloropropane	ND		50	45	ug/L			04/17/18 13:11	50
1,2,4-Trichlorobenzene	ND		50	21	ug/L			04/17/18 13:11	50
1,2,4-Trimethylbenzene	ND		50	38	ug/L			04/17/18 13:11	50
1,2-Dibromo-3-Chloropropane	ND		250	20	ug/L			04/17/18 13:11	50
1,2-Dichlorobenzene	ND		50	40	ug/L			04/17/18 13:11	50
1,2-Dichloroethane	ND		50	11	ug/L			04/17/18 13:11	50
1,2-Dichloropropane	ND		50	36	ug/L			04/17/18 13:11	50
1,3,5-Trimethylbenzene	ND		50	39	ug/L			04/17/18 13:11	50
1,3-Dichlorobenzene	ND		50	39	ug/L			04/17/18 13:11	50
1,3-Dichloropropane	ND		50	38	ug/L			04/17/18 13:11	50
1,4-Dichlorobenzene	ND		50	42	ug/L			04/17/18 13:11	50
1,4-Dioxane	ND *		2500	470	ug/L			04/17/18 13:11	50
2,2-Dichloropropane	ND		50	20	ug/L			04/17/18 13:11	50
2-Butanone (MEK)	ND *		500	66	ug/L			04/17/18 13:11	50
2-Chlorotoluene	ND		50	43	ug/L			04/17/18 13:11	50
2-Hexanone	ND		500	62	ug/L			04/17/18 13:11	50
4-Chlorotoluene	ND		50	42	ug/L			04/17/18 13:11	50
4-Isopropyltoluene	ND		50	16	ug/L			04/17/18 13:11	50
4-Methyl-2-pentanone (MIBK)	ND		500	110	ug/L			04/17/18 13:11	50
Acetone	ND *		2500	150	ug/L			04/17/18 13:11	50
Benzene	ND		50	21	ug/L			04/17/18 13:11	50
Bromobenzene	ND		50	40	ug/L			04/17/18 13:11	50
Bromoform	ND		50	13	ug/L			04/17/18 13:11	50
Bromomethane	ND		100	35	ug/L			04/17/18 13:11	50
Carbon disulfide	ND		500	9.5	ug/L			04/17/18 13:11	50
Carbon tetrachloride	ND		50	14	ug/L			04/17/18 13:11	50
Chlorobenzene	ND		50	38	ug/L			04/17/18 13:11	50
Chlorobromomethane	ND		50	44	ug/L			04/17/18 13:11	50
Chlorodibromomethane	ND		25	16	ug/L			04/17/18 13:11	50
Chloroethane	ND		100	16	ug/L			04/17/18 13:11	50
Chloroform	ND		50	17	ug/L			04/17/18 13:11	50
Chloromethane	ND		100	18	ug/L			04/17/18 13:11	50
cis-1,2-Dichloroethene	280		50	41	ug/L			04/17/18 13:11	50
cis-1,3-Dichloropropene	ND		20	18	ug/L			04/17/18 13:11	50
Dibromomethane	ND		50	21	ug/L			04/17/18 13:11	50
Dichlorobromomethane	ND		25	20	ug/L			04/17/18 13:11	50
Dichlorodifluoromethane	ND		50	34	ug/L			04/17/18 13:11	50
Ethyl ether	ND		50	36	ug/L			04/17/18 13:11	50
Ethylbenzene	ND		50	37	ug/L			04/17/18 13:11	50
Ethylene Dibromide	ND		50	37	ug/L			04/17/18 13:11	50
Hexachlorobutadiene	ND		20	14	ug/L			04/17/18 13:11	50

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-OSW1B

Lab Sample ID: 480-133885-6

Date Collected: 04/10/18 12:15

Matrix: Water

Date Received: 04/11/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		500	30	ug/L			04/17/18 13:11	50
Isopropylbenzene	ND		50	40	ug/L			04/17/18 13:11	50
Methyl tert-butyl ether	ND		50	8.0	ug/L			04/17/18 13:11	50
Methylene Chloride	ND		50	22	ug/L			04/17/18 13:11	50
m-Xylene & p-Xylene	ND		100	33	ug/L			04/17/18 13:11	50
Naphthalene	ND		250	22	ug/L			04/17/18 13:11	50
n-Butylbenzene	ND		50	32	ug/L			04/17/18 13:11	50
N-Propylbenzene	ND		50	35	ug/L			04/17/18 13:11	50
o-Xylene	ND		50	38	ug/L			04/17/18 13:11	50
sec-Butylbenzene	ND		50	38	ug/L			04/17/18 13:11	50
Styrene	ND		50	37	ug/L			04/17/18 13:11	50
Tert-amyl methyl ether	ND		250	14	ug/L			04/17/18 13:11	50
Tert-butyl ethyl ether	ND		250	15	ug/L			04/17/18 13:11	50
tert-Butylbenzene	ND		50	41	ug/L			04/17/18 13:11	50
Tetrachloroethene	ND		50	18	ug/L			04/17/18 13:11	50
Tetrahydrofuran	ND *		500	63	ug/L			04/17/18 13:11	50
Toluene	ND		50	26	ug/L			04/17/18 13:11	50
trans-1,2-Dichloroethene	ND		50	45	ug/L			04/17/18 13:11	50
trans-1,3-Dichloropropene	ND		20	19	ug/L			04/17/18 13:11	50
Trichloroethene	3500		50	23	ug/L			04/17/18 13:11	50
Trichlorofluoromethane	ND		50	44	ug/L			04/17/18 13:11	50
Vinyl chloride	ND		50	45	ug/L			04/17/18 13:11	50
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107			70 - 130				04/17/18 13:11	50
4-Bromofluorobenzene (Surr)	94			70 - 130				04/17/18 13:11	50
Toluene-d8 (Surr)	92			70 - 130				04/17/18 13:11	50
Dibromofluoromethane (Surr)	107			70 - 130				04/17/18 13:11	50

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	1.4	J	5.0	1.0	ug/L		04/11/18 09:40	04/12/18 20:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			04/11/18 07:31	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-CLW19B

Lab Sample ID: 480-133885-7

Matrix: Water

Date Collected: 04/10/18 13:15

Date Received: 04/11/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/17/18 13:35	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/17/18 13:35	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/17/18 13:35	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/17/18 13:35	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/17/18 13:35	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/17/18 13:35	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/17/18 13:35	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/17/18 13:35	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/17/18 13:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/17/18 13:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/17/18 13:35	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/17/18 13:35	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/17/18 13:35	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/17/18 13:35	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/17/18 13:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/17/18 13:35	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/17/18 13:35	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/17/18 13:35	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/17/18 13:35	1
1,4-Dioxane	ND	F1 * F2	50	9.3	ug/L			04/17/18 13:35	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/17/18 13:35	1
2-Butanone (MEK)	ND	F1 *	10	1.3	ug/L			04/17/18 13:35	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/17/18 13:35	1
2-Hexanone	ND		10	1.2	ug/L			04/17/18 13:35	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/17/18 13:35	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/17/18 13:35	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/17/18 13:35	1
Acetone	ND	*	50	3.0	ug/L			04/17/18 13:35	1
Benzene	ND		1.0	0.41	ug/L			04/17/18 13:35	1
Bromobenzene	ND		1.0	0.80	ug/L			04/17/18 13:35	1
Bromoform	ND		1.0	0.26	ug/L			04/17/18 13:35	1
Bromomethane	ND		2.0	0.69	ug/L			04/17/18 13:35	1
Carbon disulfide	ND		10	0.19	ug/L			04/17/18 13:35	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/17/18 13:35	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/17/18 13:35	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/17/18 13:35	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/17/18 13:35	1
Chloroethane	ND		2.0	0.32	ug/L			04/17/18 13:35	1
Chloroform	ND		1.0	0.34	ug/L			04/17/18 13:35	1
Chloromethane	ND		2.0	0.35	ug/L			04/17/18 13:35	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/17/18 13:35	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/17/18 13:35	1
Dibromomethane	ND		1.0	0.41	ug/L			04/17/18 13:35	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/17/18 13:35	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/17/18 13:35	1
Ethyl ether	ND		1.0	0.72	ug/L			04/17/18 13:35	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/17/18 13:35	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/17/18 13:35	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/17/18 13:35	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-CLW19B

Lab Sample ID: 480-133885-7

Matrix: Water

Date Collected: 04/10/18 13:15
Date Received: 04/11/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/17/18 13:35	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/17/18 13:35	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/17/18 13:35	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/17/18 13:35	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/17/18 13:35	1
Naphthalene	ND		5.0	0.43	ug/L			04/17/18 13:35	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/17/18 13:35	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/17/18 13:35	1
o-Xylene	ND		1.0	0.76	ug/L			04/17/18 13:35	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/17/18 13:35	1
Styrene	ND		1.0	0.73	ug/L			04/17/18 13:35	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/17/18 13:35	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/17/18 13:35	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/17/18 13:35	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/17/18 13:35	1
Tetrahydrofuran	ND	F1 *	10	1.3	ug/L			04/17/18 13:35	1
Toluene	ND		1.0	0.51	ug/L			04/17/18 13:35	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/17/18 13:35	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/17/18 13:35	1
Trichloroethene	1.1		1.0	0.46	ug/L			04/17/18 13:35	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/17/18 13:35	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/17/18 13:35	1
Surrogate	%Recovery	Qualifier			Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107				70 - 130			04/17/18 13:35	1
4-Bromofluorobenzene (Surr)	98				70 - 130			04/17/18 13:35	1
Toluene-d8 (Surr)	95				70 - 130			04/17/18 13:35	1
Dibromofluoromethane (Surr)	109				70 - 130			04/17/18 13:35	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	12		5.0	1.0	ug/L		04/11/18 09:40	04/12/18 20:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			04/11/18 07:31	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-CLW19B DUP

Lab Sample ID: 480-133885-8

Matrix: Water

Date Collected: 04/10/18 13:15

Date Received: 04/11/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/17/18 13:58	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/17/18 13:58	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/17/18 13:58	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/17/18 13:58	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/17/18 13:58	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/17/18 13:58	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/17/18 13:58	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/17/18 13:58	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/17/18 13:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/17/18 13:58	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/17/18 13:58	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/17/18 13:58	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/17/18 13:58	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/17/18 13:58	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/17/18 13:58	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/17/18 13:58	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/17/18 13:58	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/17/18 13:58	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/17/18 13:58	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/17/18 13:58	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/17/18 13:58	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/17/18 13:58	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/17/18 13:58	1
2-Hexanone	ND		10	1.2	ug/L			04/17/18 13:58	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/17/18 13:58	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/17/18 13:58	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/17/18 13:58	1
Acetone	ND *		50	3.0	ug/L			04/17/18 13:58	1
Benzene	ND		1.0	0.41	ug/L			04/17/18 13:58	1
Bromobenzene	ND		1.0	0.80	ug/L			04/17/18 13:58	1
Bromoform	ND		1.0	0.26	ug/L			04/17/18 13:58	1
Bromomethane	ND		2.0	0.69	ug/L			04/17/18 13:58	1
Carbon disulfide	ND		10	0.19	ug/L			04/17/18 13:58	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/17/18 13:58	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/17/18 13:58	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/17/18 13:58	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/17/18 13:58	1
Chloroethane	ND		2.0	0.32	ug/L			04/17/18 13:58	1
Chloroform	ND		1.0	0.34	ug/L			04/17/18 13:58	1
Chloromethane	ND		2.0	0.35	ug/L			04/17/18 13:58	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/17/18 13:58	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/17/18 13:58	1
Dibromomethane	ND		1.0	0.41	ug/L			04/17/18 13:58	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/17/18 13:58	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/17/18 13:58	1
Ethyl ether	ND		1.0	0.72	ug/L			04/17/18 13:58	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/17/18 13:58	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/17/18 13:58	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/17/18 13:58	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-CLW19B DUP

Lab Sample ID: 480-133885-8

Date Collected: 04/10/18 13:15

Matrix: Water

Date Received: 04/11/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/17/18 13:58	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/17/18 13:58	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/17/18 13:58	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/17/18 13:58	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/17/18 13:58	1
Naphthalene	ND		5.0	0.43	ug/L			04/17/18 13:58	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/17/18 13:58	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/17/18 13:58	1
o-Xylene	ND		1.0	0.76	ug/L			04/17/18 13:58	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/17/18 13:58	1
Styrene	ND		1.0	0.73	ug/L			04/17/18 13:58	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/17/18 13:58	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/17/18 13:58	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/17/18 13:58	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/17/18 13:58	1
Tetrahydrofuran	ND *		10	1.3	ug/L			04/17/18 13:58	1
Toluene	ND		1.0	0.51	ug/L			04/17/18 13:58	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/17/18 13:58	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/17/18 13:58	1
Trichloroethene	0.96 J		1.0	0.46	ug/L			04/17/18 13:58	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/17/18 13:58	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/17/18 13:58	1
Surrogate	%Recovery	Qualifier			Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105				70 - 130			04/17/18 13:58	1
4-Bromofluorobenzene (Surr)	96				70 - 130			04/17/18 13:58	1
Toluene-d8 (Surr)	95				70 - 130			04/17/18 13:58	1
Dibromofluoromethane (Surr)	105				70 - 130			04/17/18 13:58	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	12		5.0	1.0	ug/L		04/11/18 09:40	04/12/18 20:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			04/11/18 07:31	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-OSW1

Lab Sample ID: 480-133885-9

Matrix: Water

Date Collected: 04/10/18 13:35

Date Received: 04/11/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L		04/17/18 14:22		1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L		04/17/18 14:22		1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L		04/17/18 14:22		1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L		04/17/18 14:22		1
1,1-Dichloroethane	ND		1.0	0.38	ug/L		04/17/18 14:22		1
1,1-Dichloroethene	ND		1.0	0.29	ug/L		04/17/18 14:22		1
1,1-Dichloropropene	ND		1.0	0.72	ug/L		04/17/18 14:22		1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L		04/17/18 14:22		1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L		04/17/18 14:22		1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L		04/17/18 14:22		1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L		04/17/18 14:22		1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L		04/17/18 14:22		1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L		04/17/18 14:22		1
1,2-Dichloroethane	ND		1.0	0.21	ug/L		04/17/18 14:22		1
1,2-Dichloropropane	ND		1.0	0.72	ug/L		04/17/18 14:22		1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L		04/17/18 14:22		1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L		04/17/18 14:22		1
1,3-Dichloropropane	ND		1.0	0.75	ug/L		04/17/18 14:22		1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L		04/17/18 14:22		1
1,4-Dioxane	ND *		50	9.3	ug/L		04/17/18 14:22		1
2,2-Dichloropropane	ND		1.0	0.40	ug/L		04/17/18 14:22		1
2-Butanone (MEK)	ND *		10	1.3	ug/L		04/17/18 14:22		1
2-Chlorotoluene	ND		1.0	0.86	ug/L		04/17/18 14:22		1
2-Hexanone	ND		10	1.2	ug/L		04/17/18 14:22		1
4-Chlorotoluene	ND		1.0	0.84	ug/L		04/17/18 14:22		1
4-Isopropyltoluene	ND		1.0	0.31	ug/L		04/17/18 14:22		1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L		04/17/18 14:22		1
Acetone	ND *		50	3.0	ug/L		04/17/18 14:22		1
Benzene	ND		1.0	0.41	ug/L		04/17/18 14:22		1
Bromobenzene	ND		1.0	0.80	ug/L		04/17/18 14:22		1
Bromoform	ND		1.0	0.26	ug/L		04/17/18 14:22		1
Bromomethane	ND		2.0	0.69	ug/L		04/17/18 14:22		1
Carbon disulfide	ND		10	0.19	ug/L		04/17/18 14:22		1
Carbon tetrachloride	ND		1.0	0.27	ug/L		04/17/18 14:22		1
Chlorobenzene	ND		1.0	0.75	ug/L		04/17/18 14:22		1
Chlorobromomethane	ND		1.0	0.87	ug/L		04/17/18 14:22		1
Chlorodibromomethane	ND		0.50	0.32	ug/L		04/17/18 14:22		1
Chloroethane	ND		2.0	0.32	ug/L		04/17/18 14:22		1
Chloroform	ND		1.0	0.34	ug/L		04/17/18 14:22		1
Chloromethane	ND		2.0	0.35	ug/L		04/17/18 14:22		1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L		04/17/18 14:22		1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L		04/17/18 14:22		1
Dibromomethane	ND		1.0	0.41	ug/L		04/17/18 14:22		1
Dichlorobromomethane	ND		0.50	0.39	ug/L		04/17/18 14:22		1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L		04/17/18 14:22		1
Ethyl ether	ND		1.0	0.72	ug/L		04/17/18 14:22		1
Ethylbenzene	ND		1.0	0.74	ug/L		04/17/18 14:22		1
Ethylene Dibromide	ND		1.0	0.73	ug/L		04/17/18 14:22		1
Hexachlorobutadiene	ND		0.40	0.28	ug/L		04/17/18 14:22		1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-OSW1

Lab Sample ID: 480-133885-9

Matrix: Water

Date Collected: 04/10/18 13:35
Date Received: 04/11/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/17/18 14:22	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/17/18 14:22	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/17/18 14:22	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/17/18 14:22	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/17/18 14:22	1
Naphthalene	ND		5.0	0.43	ug/L			04/17/18 14:22	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/17/18 14:22	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/17/18 14:22	1
o-Xylene	ND		1.0	0.76	ug/L			04/17/18 14:22	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/17/18 14:22	1
Styrene	ND		1.0	0.73	ug/L			04/17/18 14:22	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/17/18 14:22	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/17/18 14:22	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/17/18 14:22	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/17/18 14:22	1
Tetrahydrofuran	ND *		10	1.3	ug/L			04/17/18 14:22	1
Toluene	ND		1.0	0.51	ug/L			04/17/18 14:22	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/17/18 14:22	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/17/18 14:22	1
Trichloroethene	3.0		1.0	0.46	ug/L			04/17/18 14:22	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/17/18 14:22	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/17/18 14:22	1
Surrogate	%Recovery	Qualifier			Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104				70 - 130			04/17/18 14:22	1
4-Bromofluorobenzene (Surr)	96				70 - 130			04/17/18 14:22	1
Toluene-d8 (Surr)	92				70 - 130			04/17/18 14:22	1
Dibromofluoromethane (Surr)	105				70 - 130			04/17/18 14:22	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	150		5.0	1.0	ug/L		04/11/18 09:40	04/12/18 21:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.13		0.010	0.0050	mg/L			04/11/18 07:31	1

Surrogate Summary

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (70-130)	BFB (70-130)	TOL (70-130)	DBFM (70-130)						
480-133885-1	C041018-CLW5B	107	100	100	107						
480-133885-2	C041018-CLW20	104	99	96	104						
480-133885-3	C041018-CLW5A	105	98	94	106						
480-133885-4	C041018-CLW20B	100	96	94	101						
480-133885-5	C041018-CLW19	110	95	93	109						
480-133885-6	C041018-OSW1B	107	94	92	107						
480-133885-7	C041018-CLW19B	107	98	95	109						
480-133885-7 MS	C041018-CLW19B MS	109	102	98	108						
480-133885-7 MSD	C041018-CLW19B MSD	116	103	97	115						
480-133885-8	C041018-CLW19B DUP	105	96	95	105						
480-133885-9	C041018-OSW1	104	96	92	105						
LCS 480-409160/5	Lab Control Sample	109	97	93	108						
LCSD 480-409160/6	Lab Control Sample Dup	109	101	95	107						
MB 480-409160/8	Method Blank	109	99	95	104						

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-409160/8

Matrix: Water

Analysis Batch: 409160

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L		04/17/18 10:40		1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L		04/17/18 10:40		1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L		04/17/18 10:40		1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L		04/17/18 10:40		1
1,1-Dichloroethane	ND		1.0	0.38	ug/L		04/17/18 10:40		1
1,1-Dichloroethene	ND		1.0	0.29	ug/L		04/17/18 10:40		1
1,1-Dichloropropene	ND		1.0	0.72	ug/L		04/17/18 10:40		1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L		04/17/18 10:40		1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L		04/17/18 10:40		1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L		04/17/18 10:40		1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L		04/17/18 10:40		1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L		04/17/18 10:40		1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L		04/17/18 10:40		1
1,2-Dichloroethane	ND		1.0	0.21	ug/L		04/17/18 10:40		1
1,2-Dichloropropane	ND		1.0	0.72	ug/L		04/17/18 10:40		1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L		04/17/18 10:40		1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L		04/17/18 10:40		1
1,3-Dichloropropane	ND		1.0	0.75	ug/L		04/17/18 10:40		1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L		04/17/18 10:40		1
1,4-Dioxane	ND		50	9.3	ug/L		04/17/18 10:40		1
2,2-Dichloropropane	ND		1.0	0.40	ug/L		04/17/18 10:40		1
2-Butanone (MEK)	ND		10	1.3	ug/L		04/17/18 10:40		1
2-Chlorotoluene	ND		1.0	0.86	ug/L		04/17/18 10:40		1
2-Hexanone	ND		10	1.2	ug/L		04/17/18 10:40		1
4-Chlorotoluene	ND		1.0	0.84	ug/L		04/17/18 10:40		1
4-Isopropyltoluene	ND		1.0	0.31	ug/L		04/17/18 10:40		1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L		04/17/18 10:40		1
Acetone	ND		50	3.0	ug/L		04/17/18 10:40		1
Benzene	ND		1.0	0.41	ug/L		04/17/18 10:40		1
Bromobenzene	ND		1.0	0.80	ug/L		04/17/18 10:40		1
Bromoform	ND		1.0	0.26	ug/L		04/17/18 10:40		1
Bromomethane	ND		2.0	0.69	ug/L		04/17/18 10:40		1
Carbon disulfide	ND		10	0.19	ug/L		04/17/18 10:40		1
Carbon tetrachloride	ND		1.0	0.27	ug/L		04/17/18 10:40		1
Chlorobenzene	ND		1.0	0.75	ug/L		04/17/18 10:40		1
Chlorobromomethane	ND		1.0	0.87	ug/L		04/17/18 10:40		1
Chlorodibromomethane	ND		0.50	0.32	ug/L		04/17/18 10:40		1
Chloroethane	ND		2.0	0.32	ug/L		04/17/18 10:40		1
Chloroform	ND		1.0	0.34	ug/L		04/17/18 10:40		1
Chloromethane	ND		2.0	0.35	ug/L		04/17/18 10:40		1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L		04/17/18 10:40		1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L		04/17/18 10:40		1
Dibromomethane	ND		1.0	0.41	ug/L		04/17/18 10:40		1
Dichlorobromomethane	ND		0.50	0.39	ug/L		04/17/18 10:40		1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L		04/17/18 10:40		1
Ethyl ether	ND		1.0	0.72	ug/L		04/17/18 10:40		1
Ethylbenzene	ND		1.0	0.74	ug/L		04/17/18 10:40		1
Ethylene Dibromide	ND		1.0	0.73	ug/L		04/17/18 10:40		1

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-409160/8
Matrix: Water
Analysis Batch: 409160

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/17/18 10:40	1
Isopropyl ether	ND		10	0.59	ug/L			04/17/18 10:40	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/17/18 10:40	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/17/18 10:40	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/17/18 10:40	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/17/18 10:40	1
Naphthalene	ND		5.0	0.43	ug/L			04/17/18 10:40	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/17/18 10:40	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/17/18 10:40	1
o-Xylene	ND		1.0	0.76	ug/L			04/17/18 10:40	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/17/18 10:40	1
Styrene	ND		1.0	0.73	ug/L			04/17/18 10:40	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/17/18 10:40	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/17/18 10:40	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/17/18 10:40	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/17/18 10:40	1
Tetrahydrofuran	ND		10	1.3	ug/L			04/17/18 10:40	1
Toluene	ND		1.0	0.51	ug/L			04/17/18 10:40	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/17/18 10:40	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/17/18 10:40	1
Trichloroethene	ND		1.0	0.46	ug/L			04/17/18 10:40	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/17/18 10:40	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/17/18 10:40	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	109		70 - 130		04/17/18 10:40	1
4-Bromofluorobenzene (Surr)	99		70 - 130		04/17/18 10:40	1
Toluene-d8 (Surr)	95		70 - 130		04/17/18 10:40	1
Dibromofluoromethane (Surr)	104		70 - 130		04/17/18 10:40	1

Lab Sample ID: LCS 480-409160/5
Matrix: Water
Analysis Batch: 409160

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
1,1,1,2-Tetrachloroethane	25.0	26.1		ug/L		104	70 - 130
1,1,1-Trichloroethane	25.0	26.5		ug/L		106	70 - 130
1,1,2,2-Tetrachloroethane	25.0	26.7		ug/L		107	70 - 130
1,1,2-Trichloroethane	25.0	26.7		ug/L		107	70 - 130
1,1-Dichloroethane	25.0	27.0		ug/L		108	70 - 130
1,1-Dichloroethene	25.0	26.8		ug/L		107	70 - 130
1,1-Dichloropropene	25.0	26.3		ug/L		105	70 - 130
1,2,3-Trichlorobenzene	25.0	24.1		ug/L		96	70 - 130
1,2,3-Trichloropropane	25.0	28.5		ug/L		114	70 - 130
1,2,4-Trichlorobenzene	25.0	23.8		ug/L		95	70 - 130
1,2,4-Trimethylbenzene	25.0	24.3		ug/L		97	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	25.8		ug/L		103	70 - 130
1,2-Dichlorobenzene	25.0	25.0		ug/L		100	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-409160/5

Matrix: Water

Analysis Batch: 409160

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier					
1,2-Dichloroethane	25.0	27.2		ug/L		109	70 - 130	
1,2-Dichloropropane	25.0	26.2		ug/L		105	70 - 130	
1,3,5-Trimethylbenzene	25.0	23.4		ug/L		94	70 - 130	
1,3-Dichlorobenzene	25.0	24.9		ug/L		100	70 - 130	
1,3-Dichloropropane	25.0	25.8		ug/L		103	70 - 130	
1,4-Dichlorobenzene	25.0	24.7		ug/L		99	70 - 130	
1,4-Dioxane	500	378		ug/L		76	70 - 130	
2,2-Dichloropropane	25.0	26.7		ug/L		107	70 - 130	
2-Butanone (MEK)	125	265	*	ug/L		212	70 - 130	
2-Chlorotoluene	25.0	23.6		ug/L		95	70 - 130	
2-Hexanone	125	140		ug/L		112	70 - 130	
4-Chlorotoluene	25.0	23.7		ug/L		95	70 - 130	
4-Isopropyltoluene	25.0	25.0		ug/L		100	70 - 130	
4-Methyl-2-pentanone (MIBK)	125	134		ug/L		107	70 - 130	
Acetone	125	174	*	ug/L		140	70 - 130	
Benzene	25.0	26.0		ug/L		104	70 - 130	
Bromobenzene	25.0	24.8		ug/L		99	70 - 130	
Bromoform	25.0	25.7		ug/L		103	70 - 130	
Bromomethane	25.0	26.3		ug/L		105	70 - 130	
Carbon disulfide	25.0	25.7		ug/L		103	70 - 130	
Carbon tetrachloride	25.0	27.1		ug/L		108	70 - 130	
Chlorobenzene	25.0	24.8		ug/L		99	70 - 130	
Chlorobromomethane	25.0	28.9		ug/L		116	70 - 130	
Chlorodibromomethane	25.0	25.7		ug/L		103	70 - 130	
Chloroethane	25.0	25.6		ug/L		102	70 - 130	
Chloroform	25.0	25.6		ug/L		103	70 - 130	
Chloromethane	25.0	19.3		ug/L		77	70 - 130	
cis-1,2-Dichloroethene	25.0	27.1		ug/L		109	70 - 130	
cis-1,3-Dichloropropene	25.0	26.7		ug/L		107	70 - 130	
Dibromomethane	25.0	28.6		ug/L		114	70 - 130	
Dichlorobromomethane	25.0	26.7		ug/L		107	70 - 130	
Dichlorodifluoromethane	25.0	18.7		ug/L		75	70 - 130	
Ethyl ether	25.0	28.0		ug/L		112	70 - 130	
Ethylbenzene	25.0	24.7		ug/L		99	70 - 130	
Ethylene Dibromide	25.0	27.0		ug/L		108	70 - 130	
Hexachlorobutadiene	25.0	26.2		ug/L		105	70 - 130	
Isopropyl ether	25.0	24.4		ug/L		98	70 - 130	
Isopropylbenzene	25.0	23.5		ug/L		94	70 - 130	
Methyl tert-butyl ether	25.0	28.0		ug/L		112	70 - 130	
Methylene Chloride	25.0	25.4		ug/L		102	70 - 130	
m-Xylene & p-Xylene	25.0	23.8		ug/L		95	70 - 130	
Naphthalene	25.0	26.3		ug/L		105	70 - 130	
n-Butylbenzene	25.0	24.6		ug/L		98	70 - 130	
N-Propylbenzene	25.0	23.6		ug/L		94	70 - 130	
o-Xylene	25.0	24.5		ug/L		98	70 - 130	
sec-Butylbenzene	25.0	24.1		ug/L		96	70 - 130	
Styrene	25.0	24.8		ug/L		99	70 - 130	
Tert-amyl methyl ether	25.0	28.8		ug/L		115	70 - 130	

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-409160/5

Matrix: Water

Analysis Batch: 409160

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits	
	Added	Result	Qualifier						
Tert-butyl ethyl ether	25.0	26.0		ug/L		104	70 - 130		
tert-Butylbenzene	25.0	25.2		ug/L		101	70 - 130		
Tetrachloroethene	25.0	27.6		ug/L		110	70 - 130		
Tetrahydrofuran	50.0	70.1 *		ug/L		140	70 - 130		
Toluene	25.0	24.3		ug/L		97	70 - 130		
trans-1,2-Dichloroethene	25.0	26.2		ug/L		105	70 - 130		
trans-1,3-Dichloropropene	25.0	24.5		ug/L		98	70 - 130		
Trichloroethene	25.0	26.1		ug/L		104	70 - 130		
Trichlorofluoromethane	25.0	27.5		ug/L		110	70 - 130		
Vinyl chloride	25.0	21.9		ug/L		87	70 - 130		
<hr/>									
Surrogate	LCS	LCS	Limits						
	%Recovery	Qualifier							
1,2-Dichloroethane-d4 (Surr)	109		70 - 130						
4-Bromofluorobenzene (Surr)	97		70 - 130						
Toluene-d8 (Surr)	93		70 - 130						
Dibromofluoromethane (Surr)	108		70 - 130						

Lab Sample ID: LCSD 480-409160/6

Matrix: Water

Analysis Batch: 409160

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier						
1,1,1,2-Tetrachloroethane	25.0	27.6		ug/L		110	70 - 130	5	20
1,1,1-Trichloroethane	25.0	28.0		ug/L		112	70 - 130	6	20
1,1,2,2-Tetrachloroethane	25.0	26.6		ug/L		107	70 - 130	0	20
1,1,2-Trichloroethane	25.0	25.8		ug/L		103	70 - 130	3	20
1,1-Dichloroethane	25.0	26.8		ug/L		107	70 - 130	1	20
1,1-Dichloroethene	25.0	27.8		ug/L		111	70 - 130	4	20
1,1-Dichloropropene	25.0	28.0		ug/L		112	70 - 130	6	20
1,2,3-Trichlorobenzene	25.0	25.3		ug/L		101	70 - 130	5	20
1,2,3-Trichloropropane	25.0	28.0		ug/L		112	70 - 130	2	20
1,2,4-Trichlorobenzene	25.0	24.8		ug/L		99	70 - 130	4	20
1,2,4-Trimethylbenzene	25.0	25.3		ug/L		101	70 - 130	4	20
1,2-Dibromo-3-Chloropropane	25.0	26.4		ug/L		106	70 - 130	2	20
1,2-Dichlorobenzene	25.0	25.4		ug/L		102	70 - 130	1	20
1,2-Dichloroethane	25.0	27.3		ug/L		109	70 - 130	0	20
1,2-Dichloropropane	25.0	25.8		ug/L		103	70 - 130	2	20
1,3,5-Trimethylbenzene	25.0	24.8		ug/L		99	70 - 130	6	20
1,3-Dichlorobenzene	25.0	25.9		ug/L		104	70 - 130	4	20
1,3-Dichloropropane	25.0	26.3		ug/L		105	70 - 130	2	20
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130	2	20
1,4-Dioxane	500	617 *		ug/L		123	70 - 130	48	20
2,2-Dichloropropane	25.0	27.4		ug/L		109	70 - 130	3	20
2-Butanone (MEK)	125	255 *		ug/L		204	70 - 130	4	20
2-Chlorotoluene	25.0	24.6		ug/L		99	70 - 130	4	20
2-Hexanone	125	138		ug/L		110	70 - 130	1	20
4-Chlorotoluene	25.0	24.6		ug/L		98	70 - 130	4	20
4-Isopropyltoluene	25.0	26.3		ug/L		105	70 - 130	5	20

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-409160/6

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 409160

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.		RPD	RPD Limit
	Added	Result	Qualifier				Limits	RPD		
4-Methyl-2-pentanone (MIBK)	125	135		ug/L		108	70 - 130	1	20	
Acetone	125	168	*	ug/L		135	70 - 130	4	20	
Benzene	25.0	26.9		ug/L		108	70 - 130	4	20	
Bromobenzene	25.0	25.5		ug/L		102	70 - 130	3	20	
Bromoform	25.0	25.7		ug/L		103	70 - 130	0	20	
Bromomethane	25.0	27.7		ug/L		111	70 - 130	5	20	
Carbon disulfide	25.0	26.6		ug/L		106	70 - 130	3	20	
Carbon tetrachloride	25.0	28.7		ug/L		115	70 - 130	6	20	
Chlorobenzene	25.0	25.4		ug/L		102	70 - 130	3	20	
Chlorobromomethane	25.0	29.0		ug/L		116	70 - 130	1	20	
Chlorodibromomethane	25.0	25.9		ug/L		104	70 - 130	1	20	
Chloroethane	25.0	26.8		ug/L		107	70 - 130	5	20	
Chloroform	25.0	26.6		ug/L		106	70 - 130	4	20	
Chloromethane	25.0	19.8		ug/L		79	70 - 130	3	20	
cis-1,2-Dichloroethene	25.0	27.5		ug/L		110	70 - 130	1	20	
cis-1,3-Dichloropropene	25.0	27.2		ug/L		109	70 - 130	2	20	
Dibromomethane	25.0	28.4		ug/L		114	70 - 130	1	20	
Dichlorobromomethane	25.0	27.1		ug/L		108	70 - 130	1	20	
Dichlorodifluoromethane	25.0	19.6		ug/L		78	70 - 130	4	20	
Ethyl ether	25.0	27.5		ug/L		110	70 - 130	2	20	
Ethylbenzene	25.0	25.7		ug/L		103	70 - 130	4	20	
Ethylene Dibromide	25.0	26.9		ug/L		108	70 - 130	0	20	
Hexachlorobutadiene	25.0	27.7		ug/L		111	70 - 130	6	20	
Isopropyl ether	25.0	24.6		ug/L		98	70 - 130	1	20	
Isopropylbenzene	25.0	24.9		ug/L		100	70 - 130	6	20	
Methyl tert-butyl ether	25.0	27.4		ug/L		110	70 - 130	2	20	
Methylene Chloride	25.0	24.8		ug/L		99	70 - 130	3	20	
m-Xylene & p-Xylene	25.0	25.2		ug/L		101	70 - 130	6	20	
Naphthalene	25.0	26.6		ug/L		107	70 - 130	1	20	
n-Butylbenzene	25.0	25.9		ug/L		104	70 - 130	5	20	
N-Propylbenzene	25.0	24.5		ug/L		98	70 - 130	4	20	
o-Xylene	25.0	25.7		ug/L		103	70 - 130	5	20	
sec-Butylbenzene	25.0	25.2		ug/L		101	70 - 130	4	20	
Styrene	25.0	26.2		ug/L		105	70 - 130	6	20	
Tert-amyl methyl ether	25.0	27.8		ug/L		111	70 - 130	3	20	
Tert-butyl ethyl ether	25.0	26.1		ug/L		105	70 - 130	0	20	
tert-Butylbenzene	25.0	27.3		ug/L		109	70 - 130	8	20	
Tetrachloroethene	25.0	28.7		ug/L		115	70 - 130	4	20	
Tetrahydrofuran	50.0	69.3	*	ug/L		139	70 - 130	1	20	
Toluene	25.0	25.7		ug/L		103	70 - 130	5	20	
trans-1,2-Dichloroethene	25.0	26.9		ug/L		107	70 - 130	2	20	
trans-1,3-Dichloropropene	25.0	25.4		ug/L		101	70 - 130	4	20	
Trichloroethene	25.0	27.7		ug/L		111	70 - 130	6	20	
Trichlorofluoromethane	25.0	28.9		ug/L		115	70 - 130	5	20	
Vinyl chloride	25.0	22.5		ug/L		90	70 - 130	3	20	

Surrogate	LCSD	LCSD
	%Recovery	Qualifier
1,2-Dichloroethane-d4 (Surr)	109	Limits
		70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-409160/6

Matrix: Water

Analysis Batch: 409160

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
Toluene-d8 (Surr)	95		70 - 130
Dibromofluoromethane (Surr)	107		70 - 130

Lab Sample ID: 480-133885-7 MS

Matrix: Water

Analysis Batch: 409160

Client Sample ID: C041018-CLW19B MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.	Limits
1,1,1,2-Tetrachloroethane	ND		25.0	25.4		ug/L		101		70 - 130
1,1,1-Trichloroethane	ND		25.0	25.6		ug/L		103		70 - 130
1,1,2,2-Tetrachloroethane	ND		25.0	25.5		ug/L		102		70 - 130
1,1,2-Trichloroethane	ND		25.0	24.8		ug/L		99		70 - 130
1,1-Dichloroethane	ND		25.0	25.7		ug/L		103		70 - 130
1,1-Dichloroethene	ND		25.0	27.4		ug/L		110		70 - 130
1,1-Dichloropropene	ND		25.0	25.4		ug/L		101		70 - 130
1,2,3-Trichlorobenzene	ND		25.0	23.3		ug/L		93		70 - 130
1,2,3-Trichloropropane	ND		25.0	27.7		ug/L		111		70 - 130
1,2,4-Trichlorobenzene	ND		25.0	22.8		ug/L		91		70 - 130
1,2,4-Trimethylbenzene	ND		25.0	23.3		ug/L		93		70 - 130
1,2-Dibromo-3-Chloropropane	ND		25.0	24.9		ug/L		100		70 - 130
1,2-Dichlorobenzene	ND		25.0	24.3		ug/L		97		70 - 130
1,2-Dichloroethane	ND		25.0	25.9		ug/L		103		70 - 130
1,2-Dichloropropane	ND		25.0	25.4		ug/L		102		70 - 130
1,3,5-Trimethylbenzene	ND		25.0	22.7		ug/L		91		70 - 130
1,3-Dichlorobenzene	ND		25.0	24.2		ug/L		97		70 - 130
1,3-Dichloropropane	ND		25.0	25.0		ug/L		100		70 - 130
1,4-Dichlorobenzene	ND		25.0	23.8		ug/L		95		70 - 130
1,4-Dioxane	ND	F1 * F2	500	295	F1	ug/L		59		70 - 130
2,2-Dichloropropane	ND		25.0	22.1		ug/L		88		70 - 130
2-Butanone (MEK)	ND	F1 *	125	226	F1	ug/L		181		70 - 130
2-Chlorotoluene	ND		25.0	22.2		ug/L		89		70 - 130
2-Hexanone	ND		125	127		ug/L		102		70 - 130
4-Chlorotoluene	ND		25.0	22.8		ug/L		91		70 - 130
4-Isopropyltoluene	ND		25.0	24.7		ug/L		99		70 - 130
4-Methyl-2-pentanone (MIBK)	ND		125	131		ug/L		104		70 - 130
Acetone	ND	*	125	119		ug/L		96		70 - 130
Benzene	ND		25.0	25.3		ug/L		101		70 - 130
Bromobenzene	ND		25.0	23.5		ug/L		94		70 - 130
Bromoform	ND		25.0	23.6		ug/L		94		70 - 130
Bromomethane	ND		25.0	25.6		ug/L		102		70 - 130
Carbon disulfide	ND		25.0	23.6		ug/L		95		70 - 130
Carbon tetrachloride	ND		25.0	25.4		ug/L		102		70 - 130
Chlorobenzene	ND		25.0	24.1		ug/L		96		70 - 130
Chlorobromomethane	ND		25.0	27.5		ug/L		110		70 - 130
Chlorodibromomethane	ND		25.0	24.2		ug/L		97		70 - 130
Chloroethane	ND		25.0	25.1		ug/L		100		70 - 130
Chloroform	ND		25.0	24.8		ug/L		99		70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-133885-7 MS

Matrix: Water

Analysis Batch: 409160

Client Sample ID: C041018-CLW19B MS

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Chloromethane	ND		25.0	20.3		ug/L		81	70 - 130
cis-1,2-Dichloroethene	ND		25.0	26.2		ug/L		105	70 - 130
cis-1,3-Dichloropropene	ND		25.0	24.5		ug/L		98	70 - 130
Dibromomethane	ND		25.0	27.2		ug/L		109	70 - 130
Dichlorobromomethane	ND		25.0	25.7		ug/L		103	70 - 130
Dichlorodifluoromethane	ND		25.0	20.5		ug/L		82	70 - 130
Ethyl ether	ND		25.0	25.8		ug/L		103	70 - 130
Ethylbenzene	ND		25.0	24.0		ug/L		96	70 - 130
Ethylene Dibromide	ND		25.0	25.6		ug/L		103	70 - 130
Hexachlorobutadiene	ND		25.0	25.6		ug/L		102	70 - 130
Isopropyl ether	ND		25.0	21.5		ug/L		86	70 - 130
Isopropylbenzene	ND		25.0	23.0		ug/L		92	70 - 130
Methyl tert-butyl ether	ND		25.0	26.3		ug/L		105	70 - 130
Methylene Chloride	ND		25.0	23.5		ug/L		94	70 - 130
m-Xylene & p-Xylene	ND		25.0	23.6		ug/L		94	70 - 130
Naphthalene	ND		25.0	25.5		ug/L		102	70 - 130
n-Butylbenzene	ND		25.0	23.9		ug/L		96	70 - 130
N-Propylbenzene	ND		25.0	22.8		ug/L		91	70 - 130
o-Xylene	ND		25.0	23.5		ug/L		94	70 - 130
sec-Butylbenzene	ND		25.0	23.8		ug/L		95	70 - 130
Styrene	ND		25.0	24.3		ug/L		97	70 - 130
Tert-amyl methyl ether	ND		25.0	25.4		ug/L		101	70 - 130
Tert-butyl ethyl ether	ND		25.0	23.5		ug/L		94	70 - 130
tert-Butylbenzene	ND		25.0	25.3		ug/L		101	70 - 130
Tetrachloroethene	ND		25.0	25.8		ug/L		103	70 - 130
Tetrahydrofuran	ND	F1 *	50.0	66.6	F1	ug/L		133	70 - 130
Toluene	ND		25.0	23.8		ug/L		95	70 - 130
trans-1,2-Dichloroethene	ND		25.0	25.1		ug/L		101	70 - 130
trans-1,3-Dichloropropene	ND		25.0	22.7		ug/L		91	70 - 130
Trichloroethene	1.1		25.0	26.6		ug/L		102	70 - 130
Trichlorofluoromethane	ND		25.0	25.5		ug/L		102	70 - 130
Vinyl chloride	ND		25.0	22.7		ug/L		91	70 - 130
Surrogate		MS	MS						
		%Recovery	Qualifier	Limits					
1,2-Dichloroethane-d4 (Surr)		109		70 - 130					
4-Bromofluorobenzene (Surr)		102		70 - 130					
Toluene-d8 (Surr)		98		70 - 130					
Dibromofluoromethane (Surr)		108		70 - 130					

Lab Sample ID: 480-133885-7 MSD

Matrix: Water

Analysis Batch: 409160

Client Sample ID: C041018-CLW19B MSD

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
1,1,1,2-Tetrachloroethane	ND		25.0	25.4		ug/L		101	70 - 130
1,1,1-Trichloroethane	ND		25.0	25.8		ug/L		103	70 - 130
1,1,2,2-Tetrachloroethane	ND		25.0	24.7		ug/L		99	70 - 130
1,1,2-Trichloroethane	ND		25.0	24.3		ug/L		97	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-133885-7 MSD

Client Sample ID: C041018-CLW19B MSD

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 409160

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
1,1-Dichloroethane	ND		25.0	25.6		ug/L	102	70 - 130		1	20
1,1-Dichloroethene	ND		25.0	25.7		ug/L	103	70 - 130		6	20
1,1-Dichloropropene	ND		25.0	25.9		ug/L	103	70 - 130		2	20
1,2,3-Trichlorobenzene	ND		25.0	22.9		ug/L	92	70 - 130		1	20
1,2,3-Trichloropropane	ND		25.0	28.7		ug/L	115	70 - 130		3	20
1,2,4-Trichlorobenzene	ND		25.0	22.9		ug/L	92	70 - 130		1	20
1,2,4-Trimethylbenzene	ND		25.0	23.0		ug/L	92	70 - 130		1	20
1,2-Dibromo-3-Chloropropane	ND		25.0	25.4		ug/L	102	70 - 130		2	20
1,2-Dichlorobenzene	ND		25.0	24.3		ug/L	97	70 - 130		0	20
1,2-Dichloroethane	ND		25.0	26.2		ug/L	105	70 - 130		1	20
1,2-Dichloropropane	ND		25.0	24.5		ug/L	98	70 - 130		4	20
1,3,5-Trimethylbenzene	ND		25.0	22.7		ug/L	91	70 - 130		0	20
1,3-Dichlorobenzene	ND		25.0	23.9		ug/L	95	70 - 130		1	20
1,3-Dichloropropane	ND		25.0	24.9		ug/L	99	70 - 130		0	20
1,4-Dichlorobenzene	ND		25.0	23.2		ug/L	93	70 - 130		3	20
1,4-Dioxane	ND	F1 * F2	500	627	F2	ug/L	125	70 - 130		72	20
2,2-Dichloropropane	ND		25.0	21.9		ug/L	87	70 - 130		1	20
2-Butanone (MEK)	ND	F1 *	125	232	F1	ug/L	186	70 - 130		3	20
2-Chlorotoluene	ND		25.0	22.0		ug/L	88	70 - 130		1	20
2-Hexanone	ND		125	131		ug/L	105	70 - 130		3	20
4-Chlorotoluene	ND		25.0	22.1		ug/L	88	70 - 130		3	20
4-Isopropyltoluene	ND		25.0	24.1		ug/L	97	70 - 130		2	20
4-Methyl-2-pentanone (MIBK)	ND		125	130		ug/L	104	70 - 130		0	20
Acetone	ND	*	125	123		ug/L	98	70 - 130		3	20
Benzene	ND		25.0	24.9		ug/L	100	70 - 130		2	20
Bromobenzene	ND		25.0	23.7		ug/L	95	70 - 130		1	20
Bromoform	ND		25.0	24.4		ug/L	98	70 - 130		3	20
Bromomethane	ND		25.0	25.8		ug/L	103	70 - 130		1	20
Carbon disulfide	ND		25.0	23.1		ug/L	92	70 - 130		2	20
Carbon tetrachloride	ND		25.0	25.9		ug/L	104	70 - 130		2	20
Chlorobenzene	ND		25.0	24.0		ug/L	96	70 - 130		0	20
Chlorobromomethane	ND		25.0	27.6		ug/L	110	70 - 130		0	20
Chlorodibromomethane	ND		25.0	24.8		ug/L	99	70 - 130		2	20
Chloroethane	ND		25.0	25.2		ug/L	101	70 - 130		1	20
Chloroform	ND		25.0	24.6		ug/L	99	70 - 130		1	20
Chloromethane	ND		25.0	20.4		ug/L	81	70 - 130		0	20
cis-1,2-Dichloroethene	ND		25.0	26.5		ug/L	106	70 - 130		1	20
cis-1,3-Dichloropropene	ND		25.0	24.5		ug/L	98	70 - 130		0	20
Dibromomethane	ND		25.0	27.1		ug/L	108	70 - 130		1	20
Dichlorobromomethane	ND		25.0	25.3		ug/L	101	70 - 130		2	20
Dichlorodifluoromethane	ND		25.0	19.4		ug/L	78	70 - 130		6	20
Ethyl ether	ND		25.0	25.8		ug/L	103	70 - 130		0	20
Ethylbenzene	ND		25.0	23.9		ug/L	96	70 - 130		0	20
Ethylene Dibromide	ND		25.0	25.4		ug/L	102	70 - 130		1	20
Hexachlorobutadiene	ND		25.0	25.3		ug/L	101	70 - 130		1	20
Isopropyl ether	ND		25.0	22.5		ug/L	90	70 - 130		5	20
Isopropylbenzene	ND		25.0	22.7		ug/L	91	70 - 130		1	20
Methyl tert-butyl ether	ND		25.0	26.1		ug/L	104	70 - 130		1	20

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-133885-7 MSD

Matrix: Water

Analysis Batch: 409160

Client Sample ID: C041018-CLW19B MSD

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
Methylene Chloride	ND		25.0	23.5		ug/L	94	70 - 130	0	20	
m-Xylene & p-Xylene	ND		25.0	24.4		ug/L	98	70 - 130	3	20	
Naphthalene	ND		25.0	25.3		ug/L	101	70 - 130	1	20	
n-Butylbenzene	ND		25.0	24.0		ug/L	96	70 - 130	0	20	
N-Propylbenzene	ND		25.0	22.7		ug/L	91	70 - 130	1	20	
o-Xylene	ND		25.0	24.4		ug/L	98	70 - 130	4	20	
sec-Butylbenzene	ND		25.0	23.3		ug/L	93	70 - 130	2	20	
Styrene	ND		25.0	24.1		ug/L	96	70 - 130	1	20	
Tert-amyl methyl ether	ND		25.0	26.9		ug/L	108	70 - 130	6	20	
Tert-butyl ethyl ether	ND		25.0	24.9		ug/L	99	70 - 130	5	20	
tert-Butylbenzene	ND		25.0	24.7		ug/L	99	70 - 130	3	20	
Tetrachloroethene	ND		25.0	26.6		ug/L	106	70 - 130	3	20	
Tetrahydrofuran	ND	F1 *	50.0	69.7	F1	ug/L	139	70 - 130	5	20	
Toluene	ND		25.0	23.7		ug/L	95	70 - 130	1	20	
trans-1,2-Dichloroethene	ND		25.0	25.3		ug/L	101	70 - 130	1	20	
trans-1,3-Dichloropropene	ND		25.0	23.1		ug/L	92	70 - 130	2	20	
Trichloroethene	1.1		25.0	27.6		ug/L	106	70 - 130	4	20	
Trichlorofluoromethane	ND		25.0	25.1		ug/L	100	70 - 130	2	20	
Vinyl chloride	ND		25.0	22.2		ug/L	89	70 - 130	2	20	
<hr/>											
Surrogate		MSD	MSD								
Surrogate		%Recovery	Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)		116		70 - 130							
4-Bromofluorobenzene (Surr)		103		70 - 130							
Toluene-d8 (Surr)		97		70 - 130							
Dibromofluoromethane (Surr)		115		70 - 130							

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-408191/1-A

Matrix: Water

Analysis Batch: 408672

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 408191

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chromium	ND		5.0	1.0	ug/L		04/11/18 09:40	04/12/18 19:51	1

Lab Sample ID: LCS 480-408191/2-A

Matrix: Water

Analysis Batch: 408672

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 408191

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Chromium	200	211		ug/L		105	80 - 120

Lab Sample ID: LCSD 480-408191/25-A

Matrix: Water

Analysis Batch: 408672

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 408191

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD
	Added	Result	Qualifier					
Chromium	200	200		ug/L		100	80 - 120	5

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: 480-133885-7 MS

Matrix: Water

Analysis Batch: 408672

Client Sample ID: C041018-CLW19B MS

Prep Type: Total/NA

Prep Batch: 408191

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Chromium	12		200	213		ug/L	101	75 - 125	

Lab Sample ID: 480-133885-7 MSD

Matrix: Water

Analysis Batch: 408672

Client Sample ID: C041018-CLW19B MSD

Prep Type: Total/NA

Prep Batch: 408191

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD	Limit
Chromium	12		200	217		ug/L	103	75 - 125	2	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 480-408202/3

Matrix: Water

Analysis Batch: 408202

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			04/11/18 07:31	1

Lab Sample ID: LCS 480-408202/4

Matrix: Water

Analysis Batch: 408202

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Chromium, hexavalent	0.200	0.189		mg/L	95	80 - 120	

Lab Sample ID: LCSD 480-408202/23

Matrix: Water

Analysis Batch: 408202

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	Limit
Chromium, hexavalent	0.200	0.181		mg/L	90	80 - 120	4	20

Lab Sample ID: 480-133885-2 MS

Matrix: Water

Analysis Batch: 408202

Client Sample ID: C041018-CLW20

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Chromium, hexavalent	ND		0.200	0.180		mg/L	90	75 - 125	

Lab Sample ID: 480-133885-7 MS

Matrix: Water

Analysis Batch: 408202

Client Sample ID: C041018-CLW19B MS

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Chromium, hexavalent	ND		0.200	0.193		mg/L	96	75 - 125	

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 480-133885-7 MSD

Matrix: Water

Analysis Batch: 408202

Client Sample ID: C041018-CLW19B MSD

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD	RPD Limit
Chromium, hexavalent	ND		0.200	0.207		mg/L	103	75 - 125	7	20

Lab Sample ID: 480-133885-1 DU

Matrix: Water

Analysis Batch: 408202

Client Sample ID: C041018-CLW5B

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D		RPD	RPD Limit
Chromium, hexavalent	ND			ND		mg/L			NC	20

QC Association Summary

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

GC/MS VOA

Analysis Batch: 409160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133885-1	C041018-CLW5B	Total/NA	Water	8260C	5
480-133885-2	C041018-CLW20	Total/NA	Water	8260C	6
480-133885-3	C041018-CLW5A	Total/NA	Water	8260C	7
480-133885-4	C041018-CLW20B	Total/NA	Water	8260C	8
480-133885-5	C041018-CLW19	Total/NA	Water	8260C	9
480-133885-6	C041018-OSW1B	Total/NA	Water	8260C	10
480-133885-7	C041018-CLW19B	Total/NA	Water	8260C	11
480-133885-8	C041018-CLW19B DUP	Total/NA	Water	8260C	12
480-133885-9	C041018-OSW1	Total/NA	Water	8260C	13
MB 480-409160/8	Method Blank	Total/NA	Water	8260C	14
LCS 480-409160/5	Lab Control Sample	Total/NA	Water	8260C	15
LCSD 480-409160/6	Lab Control Sample Dup	Total/NA	Water	8260C	16
480-133885-7 MS	C041018-CLW19B MS	Total/NA	Water	8260C	17
480-133885-7 MSD	C041018-CLW19B MSD	Total/NA	Water	8260C	18

Metals

Prep Batch: 408191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133885-1	C041018-CLW5B	Total/NA	Water	3005A	14
480-133885-2	C041018-CLW20	Total/NA	Water	3005A	15
480-133885-3	C041018-CLW5A	Total/NA	Water	3005A	16
480-133885-4	C041018-CLW20B	Total/NA	Water	3005A	17
480-133885-5	C041018-CLW19	Total/NA	Water	3005A	18
480-133885-6	C041018-OSW1B	Total/NA	Water	3005A	19
480-133885-7	C041018-CLW19B	Total/NA	Water	3005A	20
480-133885-8	C041018-CLW19B DUP	Total/NA	Water	3005A	21
480-133885-9	C041018-OSW1	Total/NA	Water	3005A	22
MB 480-408191/1-A	Method Blank	Total/NA	Water	3005A	23
LCS 480-408191/2-A	Lab Control Sample	Total/NA	Water	3005A	24
LCSD 480-408191/25-A	Lab Control Sample Dup	Total/NA	Water	3005A	25
480-133885-7 MS	C041018-CLW19B MS	Total/NA	Water	3005A	26
480-133885-7 MSD	C041018-CLW19B MSD	Total/NA	Water	3005A	27

Analysis Batch: 408672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133885-1	C041018-CLW5B	Total/NA	Water	6010	408191
480-133885-2	C041018-CLW20	Total/NA	Water	6010	408191
480-133885-3	C041018-CLW5A	Total/NA	Water	6010	408191
480-133885-4	C041018-CLW20B	Total/NA	Water	6010	408191
480-133885-5	C041018-CLW19	Total/NA	Water	6010	408191
480-133885-6	C041018-OSW1B	Total/NA	Water	6010	408191
480-133885-7	C041018-CLW19B	Total/NA	Water	6010	408191
480-133885-8	C041018-CLW19B DUP	Total/NA	Water	6010	408191
480-133885-9	C041018-OSW1	Total/NA	Water	6010	408191
MB 480-408191/1-A	Method Blank	Total/NA	Water	6010	408191
LCS 480-408191/2-A	Lab Control Sample	Total/NA	Water	6010	408191
LCSD 480-408191/25-A	Lab Control Sample Dup	Total/NA	Water	6010	408191
480-133885-7 MS	C041018-CLW19B MS	Total/NA	Water	6010	408191
480-133885-7 MSD	C041018-CLW19B MSD	Total/NA	Water	6010	408191

TestAmerica Buffalo

QC Association Summary

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

General Chemistry

Analysis Batch: 408202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133885-1	C041018-CLW5B	Total/NA	Water	7196A	5
480-133885-2	C041018-CLW20	Total/NA	Water	7196A	6
480-133885-3	C041018-CLW5A	Total/NA	Water	7196A	7
480-133885-4	C041018-CLW20B	Total/NA	Water	7196A	8
480-133885-5	C041018-CLW19	Total/NA	Water	7196A	9
480-133885-6	C041018-OSW1B	Total/NA	Water	7196A	10
480-133885-7	C041018-CLW19B	Total/NA	Water	7196A	11
480-133885-8	C041018-CLW19B DUP	Total/NA	Water	7196A	12
480-133885-9	C041018-OSW1	Total/NA	Water	7196A	13
MB 480-408202/3	Method Blank	Total/NA	Water	7196A	14
LCS 480-408202/4	Lab Control Sample	Total/NA	Water	7196A	15
LCSD 480-408202/23	Lab Control Sample Dup	Total/NA	Water	7196A	
480-133885-2 MS	C041018-CLW20	Total/NA	Water	7196A	
480-133885-7 MS	C041018-CLW19B MS	Total/NA	Water	7196A	
480-133885-7 MSD	C041018-CLW19B MSD	Total/NA	Water	7196A	
480-133885-1 DU	C041018-CLW5B	Total/NA	Water	7196A	

Lab Chronicle

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-CLW5B

Date Collected: 04/10/18 09:05

Date Received: 04/11/18 01:00

Lab Sample ID: 480-133885-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	409160	04/17/18 11:14	AEM	TAL BUF
Total/NA	Prep	3005A			408191	04/11/18 09:40	EMB	TAL BUF
Total/NA	Analysis	6010		1	408672	04/12/18 19:59	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408202	04/11/18 07:31	EKB	TAL BUF

Client Sample ID: C041018-CLW20

Date Collected: 04/10/18 09:25

Date Received: 04/11/18 01:00

Lab Sample ID: 480-133885-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	409160	04/17/18 11:37	AEM	TAL BUF
Total/NA	Prep	3005A			408191	04/11/18 09:40	EMB	TAL BUF
Total/NA	Analysis	6010		1	408672	04/12/18 20:03	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408202	04/11/18 07:31	EKB	TAL BUF

Client Sample ID: C041018-CLW5A

Date Collected: 04/10/18 09:45

Date Received: 04/11/18 01:00

Lab Sample ID: 480-133885-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	409160	04/17/18 12:01	AEM	TAL BUF
Total/NA	Prep	3005A			408191	04/11/18 09:40	EMB	TAL BUF
Total/NA	Analysis	6010		1	408672	04/12/18 20:06	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408202	04/11/18 07:31	EKB	TAL BUF

Client Sample ID: C041018-CLW20B

Date Collected: 04/10/18 10:25

Date Received: 04/11/18 01:00

Lab Sample ID: 480-133885-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	409160	04/17/18 12:24	AEM	TAL BUF
Total/NA	Prep	3005A			408191	04/11/18 09:40	EMB	TAL BUF
Total/NA	Analysis	6010		1	408672	04/12/18 20:22	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408202	04/11/18 07:31	EKB	TAL BUF

Client Sample ID: C041018-CLW19

Date Collected: 04/10/18 11:45

Date Received: 04/11/18 01:00

Lab Sample ID: 480-133885-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	409160	04/17/18 12:48	AEM	TAL BUF
Total/NA	Prep	3005A			408191	04/11/18 09:40	EMB	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Client Sample ID: C041018-CLW19

Date Collected: 04/10/18 11:45
Date Received: 04/11/18 01:00

Lab Sample ID: 480-133885-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010		1	408672	04/12/18 20:26	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408202	04/11/18 07:31	EKB	TAL BUF

Client Sample ID: C041018-OSW1B

Date Collected: 04/10/18 12:15
Date Received: 04/11/18 01:00

Lab Sample ID: 480-133885-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	409160	04/17/18 13:11	AEM	TAL BUF
Total/NA	Prep	3005A			408191	04/11/18 09:40	EMB	TAL BUF
Total/NA	Analysis	6010		1	408672	04/12/18 20:29	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408202	04/11/18 07:31	EKB	TAL BUF

Client Sample ID: C041018-CLW19B

Date Collected: 04/10/18 13:15
Date Received: 04/11/18 01:00

Lab Sample ID: 480-133885-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	409160	04/17/18 13:35	AEM	TAL BUF
Total/NA	Prep	3005A			408191	04/11/18 09:40	EMB	TAL BUF
Total/NA	Analysis	6010		1	408672	04/12/18 20:33	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408202	04/11/18 07:31	EKB	TAL BUF

Client Sample ID: C041018-CLW19B DUP

Date Collected: 04/10/18 13:15
Date Received: 04/11/18 01:00

Lab Sample ID: 480-133885-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	409160	04/17/18 13:58	AEM	TAL BUF
Total/NA	Prep	3005A			408191	04/11/18 09:40	EMB	TAL BUF
Total/NA	Analysis	6010		1	408672	04/12/18 20:52	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408202	04/11/18 07:31	EKB	TAL BUF

Client Sample ID: C041018-OSW1

Date Collected: 04/10/18 13:35
Date Received: 04/11/18 01:00

Lab Sample ID: 480-133885-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	409160	04/17/18 14:22	AEM	TAL BUF
Total/NA	Prep	3005A			408191	04/11/18 09:40	EMB	TAL BUF
Total/NA	Analysis	6010		1	408672	04/12/18 21:07	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408202	04/11/18 07:31	EKB	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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Accreditation/Certification Summary

Client: Honeywell International Inc
 Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Massachusetts	State Program	1	M-NY044	06-30-18
The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:				
Analysis Method	Prep Method	Matrix	Analyte	
6010	3005A	Water	Chromium	
7196A		Water	Chromium, hexavalent	
8260C		Water	1,1,1,2-Tetrachloroethane	
8260C		Water	1,1,1-Trichloroethane	
8260C		Water	1,1,2,2-Tetrachloroethane	
8260C		Water	1,1,2-Trichloroethane	
8260C		Water	1,1-Dichloroethane	
8260C		Water	1,1-Dichloroethene	
8260C		Water	1,1-Dichloropropene	
8260C		Water	1,2,3-Trichlorobenzene	
8260C		Water	1,2,3-Trichloropropane	
8260C		Water	1,2,4-Trichlorobenzene	
8260C		Water	1,2,4-Trimethylbenzene	
8260C		Water	1,2-Dibromo-3-Chloropropane	
8260C		Water	1,2-Dichlorobenzene	
8260C		Water	1,2-Dichloroethane	
8260C		Water	1,2-Dichloropropane	
8260C		Water	1,3,5-Trimethylbenzene	
8260C		Water	1,3-Dichlorobenzene	
8260C		Water	1,3-Dichloropropane	
8260C		Water	1,4-Dichlorobenzene	
8260C		Water	1,4-Dioxane	
8260C		Water	2,2-Dichloropropane	
8260C		Water	2-Butanone (MEK)	
8260C		Water	2-Chlorotoluene	
8260C		Water	2-Hexanone	
8260C		Water	4-Chlorotoluene	
8260C		Water	4-Isopropyltoluene	
8260C		Water	4-Methyl-2-pentanone (MIBK)	
8260C		Water	Acetone	
8260C		Water	Benzene	
8260C		Water	Bromobenzene	
8260C		Water	Bromoform	
8260C		Water	Bromomethane	
8260C		Water	Carbon disulfide	
8260C		Water	Carbon tetrachloride	
8260C		Water	Chlorobenzene	
8260C		Water	Chlorobromomethane	
8260C		Water	Chlorodibromomethane	
8260C		Water	Chloroethane	
8260C		Water	Chloroform	
8260C		Water	Chloromethane	
8260C		Water	cis-1,2-Dichloroethene	
8260C		Water	cis-1,3-Dichloropropene	
8260C		Water	Dibromomethane	
8260C		Water	Dichlorobromomethane	

TestAmerica Buffalo

Accreditation/Certification Summary

Client: Honeywell International Inc

Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Laboratory: TestAmerica Buffalo (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Massachusetts	State Program	1	M-NY044	06-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	Dichlorodifluoromethane
8260C		Water	Ethyl ether
8260C		Water	Ethylbenzene
8260C		Water	Ethylene Dibromide
8260C		Water	Hexachlorobutadiene
8260C		Water	Isopropyl ether
8260C		Water	Isopropylbenzene
8260C		Water	Methyl tert-butyl ether
8260C		Water	Methylene Chloride
8260C		Water	m-Xylene & p-Xylene
8260C		Water	Naphthalene
8260C		Water	n-Butylbenzene
8260C		Water	N-Propylbenzene
8260C		Water	o-Xylene
8260C		Water	sec-Butylbenzene
8260C		Water	Styrene
8260C		Water	Tert-amyl methyl ether
8260C		Water	Tert-butyl ethyl ether
8260C		Water	tert-Butylbenzene
8260C		Water	Tetrachloroethene
8260C		Water	Tetrahydrofuran
8260C		Water	Toluene
8260C		Water	trans-1,2-Dichloroethene
8260C		Water	trans-1,3-Dichloropropene
8260C		Water	Trichloroethene
8260C		Water	Trichlorofluoromethane
8260C		Water	Vinyl chloride

Method Summary

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
6010	Metals (ICP)	SW846	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

MA DEP = Massachusetts Department Of Environmental Protection

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133885-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-133885-1	C041018-CLW5B	Water	04/10/18 09:05	04/11/18 01:00
480-133885-2	C041018-CLW20	Water	04/10/18 09:25	04/11/18 01:00
480-133885-3	C041018-CLW5A	Water	04/10/18 09:45	04/11/18 01:00
480-133885-4	C041018-CLW20B	Water	04/10/18 10:25	04/11/18 01:00
480-133885-5	C041018-CLW19	Water	04/10/18 11:45	04/11/18 01:00
480-133885-6	C041018-OSW1B	Water	04/10/18 12:15	04/11/18 01:00
480-133885-7	C041018-CLW19B	Water	04/10/18 13:15	04/11/18 01:00
480-133885-8	C041018-CLW19B DUP	Water	04/10/18 13:15	04/11/18 01:00
480-133885-9	C041018-OSW1	Water	04/10/18 13:35	04/11/18 01:00

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TestAmerica Buffalo

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 480-133885-1

Login Number: 133885

List Source: TestAmerica Buffalo

List Number: 1

Creator: Kinecki, Kenneth P

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AMEC FW
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-133969-1

Client Project/Site: April 2018 Semi Annual

Revision: 1

For:

Honeywell International Inc
Remediation & Evaluation Services
115 Tabor Road
Morris Plains, New Jersey 07950

Attn: Ms. Maria Kaouris



Authorized for release by:

4/24/2018 4:19:27 PM

Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II
(716)504-9838

john.schove@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

D	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Job ID: 480-133969-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-133969-1

Revision

This report has been revised to correct a sample ID.

Receipt

The samples were received on 4/12/2018 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9° C.

GC/MS VOA

Method(s) 8260C: With the exception of diluted samples, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for Carbon disulfide, Isopropyl ether, Naphthalene, tert-Butyl ethyl ether, tert-Amyl methyl Ether, & Tetrahydrofuran

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-409387 recovered outside the MCP control limit criteria for the following analyte: Acetone. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. Difficult analytes are allowed to be outside the 20% difference but not over 60% difference. The following samples were affected : C041118-CIW1B (480-133969-1), C041118-OSW4I (480-133969-2), C041118-CLW22 (480-133969-4), C041118-CLW22B (480-133969-5), C041118-CLW17 (480-133969-6) and C041118-CLW17B (480-133969-7).

Method(s) 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batch 480-409387 exceeded control limits for the following analyte: 2-Butanone and Tetrahydrofuran. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate and Methacrylonitrile in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following samples were affected : C041118-CIW1B (480-133969-1), C041118-OSW4I (480-133969-2), C041118-CLW22 (480-133969-4), C041118-CLW22B (480-133969-5), C041118-CLW17 (480-133969-6) and C041118-CLW17B (480-133969-7).

Method(s) 8260C: The laboratory control sample (LCS) and/or the laboratory control sample duplicate (LCSD) for batch 480-409387 exceeded control limits for the following analytes: 1,4-Dioxane and Acetone. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following samples were affected : C041118-CIW1B (480-133969-1), C041118-OSW4I (480-133969-2), C041118-CLW22 (480-133969-4), C041118-CLW22B (480-133969-5), C041118-CLW17 (480-133969-6) and C041118-CLW17B (480-133969-7).

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: C041118-CIW1B (480-133969-1) and C041118-OSW4I (480-133969-2). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch analytical batch 480-409387 recovered outside control limits for the following analyte: 1,4-Dioxane.

Method(s) 8260C: The continuing calibration verification (CCV) for Acetone and 1,4-Dioxane associated with batch 480-409598 recovered outside the MCP control limit criteria. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. Difficult analytes are allowed to be outside the 20% difference but not over 60% difference. The following sample was affected : C041118-PP2 (480-133969-3).

Method(s) 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-409598 exceeded control limits for the following analytes: Acetone and 1,4-Dioxane. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following sample was affected : C041118-PP2 (480-133969-3).

Method(s) 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-409598 exceeded control limits for the following analytes: 2-Butanone and Tetrahydrofuran. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate and Methacrylonitrile in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following sample was

Case Narrative

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Job ID: 480-133969-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

affected : C041118-PP2 (480-133969-3).

Method(s) 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch analytical batch 480-409598 recovered outside control limits for the following analyte: 1,4-Dioxane. The following sample is impacted: C041118-PP2 (480-133969-3)

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: C041118-PP2 (480-133969-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

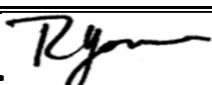
Method(s) 6010: At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

MassDEP Analytical Protocol Certification Form

Laboratory Name: TestAmerica Buffalo		Project #: 480-133969-1			
Project Location: Groton		RTN:			
This form provides certifications for the following data set: list Laboratory Sample ID Number(s): 480-133969-1(1-7)					
Matrices: <input checked="" type="checkbox"/> Groundwater/Surface Water <input type="checkbox"/> Soil/Sediment <input type="checkbox"/> Drinking Water <input type="checkbox"/> Air <input type="checkbox"/> Other:					
CAM Protocols (check all that apply below):					
8260 VOC CAM II A <input checked="" type="checkbox"/>	7470/7471 Hg CAM III B	Mass DEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input checked="" type="checkbox"/>	Mass DEP APH CAM IX A <input type="checkbox"/>
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	Mass DEP EPH CAM IV B <input type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>
6010 Metals CAM III A <input checked="" type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9014 Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>	
Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status					
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
E	a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?			<input type="checkbox"/> Yes	<input type="checkbox"/> No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Responses to Questions G, H and I below are required for "Presumptive Certainty" status					
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350					
H	Were all QC performance standards specified in the CAM protocol(s) achieved?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
¹ All negative responses must be addressed in an attached laboratory narrative.					
<i>I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.</i>					
Signature:			Position:	Project Management Assistant	
Printed Name:	Rebecca Jones		Date:	4/20/18 18:17	

Detection Summary

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-CIW1B

Lab Sample ID: 480-133969-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	260		20	16	ug/L	20		8260C	Total/NA
trans-1,2-Dichloroethene	37		20	18	ug/L	20		8260C	Total/NA
Trichloroethene	1000		20	9.2	ug/L	20		8260C	Total/NA
Vinyl chloride	92		20	18	ug/L	20		8260C	Total/NA
Chromium	990		5.0	1.0	ug/L	1		6010	Total/NA

Client Sample ID: C041118-OSW4I

Lab Sample ID: 480-133969-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	3.0	J	8.0	2.3	ug/L	8		8260C	Total/NA
cis-1,2-Dichloroethene	110		8.0	6.5	ug/L	8		8260C	Total/NA
Trichloroethene	270		8.0	3.7	ug/L	8		8260C	Total/NA
Vinyl chloride	9.4		8.0	7.2	ug/L	8		8260C	Total/NA
Chromium	100		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, hexavalent	0.077		0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: C041118-PP2

Lab Sample ID: 480-133969-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.3	J	4.0	1.2	ug/L	4		8260C	Total/NA
Acetone	14	J *	200	12	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene	53		4.0	3.2	ug/L	4		8260C	Total/NA
Methylene Chloride	4.0	B	4.0	1.8	ug/L	4		8260C	Total/NA
Trichloroethene	110		4.0	1.8	ug/L	4		8260C	Total/NA
Vinyl chloride	5.6		4.0	3.6	ug/L	4		8260C	Total/NA
Chromium	170		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, hexavalent	0.077		0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: C041118-CLW22

Lab Sample ID: 480-133969-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.5		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	7.9		1.0	0.46	ug/L	1		8260C	Total/NA
Chromium	11		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, hexavalent	0.0063	J	0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: C041118-CLW22B

Lab Sample ID: 480-133969-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.7		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	11		1.0	0.46	ug/L	1		8260C	Total/NA
Chromium	14		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, hexavalent	0.0063	J	0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: C041118-CLW17

Lab Sample ID: 480-133969-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	3.6		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	11		1.0	0.46	ug/L	1		8260C	Total/NA
Chromium	41		5.0	1.0	ug/L	1		6010	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-CLW17 (Continued)

Lab Sample ID: 480-133969-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium, hexavalent	0.037		0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: C041118-CLW17B

Lab Sample ID: 480-133969-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	18		1.0	0.81	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	4.2		1.0	0.90	ug/L	1		8260C	Total/NA
Trichloroethene	75		1.0	0.46	ug/L	1		8260C	Total/NA
Chromium	17		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, hexavalent	0.016		0.010	0.0050	mg/L	1		7196A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-CIW1B

Lab Sample ID: 480-133969-1

Date Collected: 04/11/18 09:55

Matrix: Water

Date Received: 04/12/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		20	7.0	ug/L			04/18/18 13:12	20
1,1,1-Trichloroethane	ND		20	16	ug/L			04/18/18 13:12	20
1,1,2,2-Tetrachloroethane	ND		10	4.2	ug/L			04/18/18 13:12	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			04/18/18 13:12	20
1,1-Dichloroethane	ND		20	7.6	ug/L			04/18/18 13:12	20
1,1-Dichloroethene	ND		20	5.8	ug/L			04/18/18 13:12	20
1,1-Dichloropropene	ND		20	14	ug/L			04/18/18 13:12	20
1,2,3-Trichlorobenzene	ND		20	8.2	ug/L			04/18/18 13:12	20
1,2,3-Trichloropropane	ND		20	18	ug/L			04/18/18 13:12	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			04/18/18 13:12	20
1,2,4-Trimethylbenzene	ND		20	15	ug/L			04/18/18 13:12	20
1,2-Dibromo-3-Chloropropane	ND		100	7.8	ug/L			04/18/18 13:12	20
1,2-Dichlorobenzene	ND		20	16	ug/L			04/18/18 13:12	20
1,2-Dichloroethane	ND		20	4.2	ug/L			04/18/18 13:12	20
1,2-Dichloropropane	ND		20	14	ug/L			04/18/18 13:12	20
1,3,5-Trimethylbenzene	ND		20	15	ug/L			04/18/18 13:12	20
1,3-Dichlorobenzene	ND		20	16	ug/L			04/18/18 13:12	20
1,3-Dichloropropane	ND		20	15	ug/L			04/18/18 13:12	20
1,4-Dichlorobenzene	ND		20	17	ug/L			04/18/18 13:12	20
1,4-Dioxane	ND *		1000	190	ug/L			04/18/18 13:12	20
2,2-Dichloropropane	ND		20	8.0	ug/L			04/18/18 13:12	20
2-Butanone (MEK)	ND *		200	26	ug/L			04/18/18 13:12	20
2-Chlorotoluene	ND		20	17	ug/L			04/18/18 13:12	20
2-Hexanone	ND		200	25	ug/L			04/18/18 13:12	20
4-Chlorotoluene	ND		20	17	ug/L			04/18/18 13:12	20
4-Isopropyltoluene	ND		20	6.2	ug/L			04/18/18 13:12	20
4-Methyl-2-pentanone (MIBK)	ND		200	42	ug/L			04/18/18 13:12	20
Acetone	ND *		1000	60	ug/L			04/18/18 13:12	20
Benzene	ND		20	8.2	ug/L			04/18/18 13:12	20
Bromobenzene	ND		20	16	ug/L			04/18/18 13:12	20
Bromoform	ND		20	5.2	ug/L			04/18/18 13:12	20
Bromomethane	ND		40	14	ug/L			04/18/18 13:12	20
Carbon disulfide	ND		200	3.8	ug/L			04/18/18 13:12	20
Carbon tetrachloride	ND		20	5.4	ug/L			04/18/18 13:12	20
Chlorobenzene	ND		20	15	ug/L			04/18/18 13:12	20
Chlorobromomethane	ND		20	17	ug/L			04/18/18 13:12	20
Chlorodibromomethane	ND		10	6.4	ug/L			04/18/18 13:12	20
Chloroethane	ND		40	6.4	ug/L			04/18/18 13:12	20
Chloroform	ND		20	6.8	ug/L			04/18/18 13:12	20
Chloromethane	ND		40	7.0	ug/L			04/18/18 13:12	20
cis-1,2-Dichloroethene	260		20	16	ug/L			04/18/18 13:12	20
cis-1,3-Dichloropropene	ND		8.0	7.2	ug/L			04/18/18 13:12	20
Dibromomethane	ND		20	8.2	ug/L			04/18/18 13:12	20
Dichlorobromomethane	ND		10	7.8	ug/L			04/18/18 13:12	20
Dichlorodifluoromethane	ND		20	14	ug/L			04/18/18 13:12	20
Ethyl ether	ND		20	14	ug/L			04/18/18 13:12	20
Ethylbenzene	ND		20	15	ug/L			04/18/18 13:12	20
Ethylene Dibromide	ND		20	15	ug/L			04/18/18 13:12	20
Hexachlorobutadiene	ND		8.0	5.6	ug/L			04/18/18 13:12	20

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-CIW1B
Date Collected: 04/11/18 09:55
Date Received: 04/12/18 01:00

Lab Sample ID: 480-133969-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		200	12	ug/L			04/18/18 13:12	20
Isopropylbenzene	ND		20	16	ug/L			04/18/18 13:12	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			04/18/18 13:12	20
Methylene Chloride	ND		20	8.8	ug/L			04/18/18 13:12	20
m-Xylene & p-Xylene	ND		40	13	ug/L			04/18/18 13:12	20
Naphthalene	ND		100	8.6	ug/L			04/18/18 13:12	20
n-Butylbenzene	ND		20	13	ug/L			04/18/18 13:12	20
N-Propylbenzene	ND		20	14	ug/L			04/18/18 13:12	20
o-Xylene	ND		20	15	ug/L			04/18/18 13:12	20
sec-Butylbenzene	ND		20	15	ug/L			04/18/18 13:12	20
Styrene	ND		20	15	ug/L			04/18/18 13:12	20
Tert-amyl methyl ether	ND		100	5.4	ug/L			04/18/18 13:12	20
Tert-butyl ethyl ether	ND		100	5.9	ug/L			04/18/18 13:12	20
tert-Butylbenzene	ND		20	16	ug/L			04/18/18 13:12	20
Tetrachloroethene	ND		20	7.2	ug/L			04/18/18 13:12	20
Tetrahydrofuran	ND *		200	25	ug/L			04/18/18 13:12	20
Toluene	ND		20	10	ug/L			04/18/18 13:12	20
trans-1,2-Dichloroethene	37		20	18	ug/L			04/18/18 13:12	20
trans-1,3-Dichloropropene	ND		8.0	7.4	ug/L			04/18/18 13:12	20
Trichloroethene	1000		20	9.2	ug/L			04/18/18 13:12	20
Trichlorofluoromethane	ND		20	18	ug/L			04/18/18 13:12	20
Vinyl chloride	92		20	18	ug/L			04/18/18 13:12	20
Surrogate	%Recovery	Qualifier			Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114				70 - 130			04/18/18 13:12	20
4-Bromofluorobenzene (Surr)	102				70 - 130			04/18/18 13:12	20
Toluene-d8 (Surr)	99				70 - 130			04/18/18 13:12	20
Dibromofluoromethane (Surr)	111				70 - 130			04/18/18 13:12	20

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	990		5.0	1.0	ug/L		04/13/18 09:17	04/13/18 16:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			04/12/18 08:02	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-OSW4I

Lab Sample ID: 480-133969-2

Matrix: Water

Date Collected: 04/11/18 12:25

Date Received: 04/12/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		8.0	2.8	ug/L			04/18/18 13:36	8
1,1,1-Trichloroethane	ND		8.0	6.6	ug/L			04/18/18 13:36	8
1,1,2,2-Tetrachloroethane	ND		4.0	1.7	ug/L			04/18/18 13:36	8
1,1,2-Trichloroethane	ND		8.0	1.8	ug/L			04/18/18 13:36	8
1,1-Dichloroethane	ND		8.0	3.0	ug/L			04/18/18 13:36	8
1,1-Dichloroethene	3.0	J	8.0	2.3	ug/L			04/18/18 13:36	8
1,1-Dichloropropene	ND		8.0	5.8	ug/L			04/18/18 13:36	8
1,2,3-Trichlorobenzene	ND		8.0	3.3	ug/L			04/18/18 13:36	8
1,2,3-Trichloropropane	ND		8.0	7.1	ug/L			04/18/18 13:36	8
1,2,4-Trichlorobenzene	ND		8.0	3.3	ug/L			04/18/18 13:36	8
1,2,4-Trimethylbenzene	ND		8.0	6.0	ug/L			04/18/18 13:36	8
1,2-Dibromo-3-Chloropropane	ND		40	3.1	ug/L			04/18/18 13:36	8
1,2-Dichlorobenzene	ND		8.0	6.3	ug/L			04/18/18 13:36	8
1,2-Dichloroethane	ND		8.0	1.7	ug/L			04/18/18 13:36	8
1,2-Dichloropropane	ND		8.0	5.8	ug/L			04/18/18 13:36	8
1,3,5-Trimethylbenzene	ND		8.0	6.2	ug/L			04/18/18 13:36	8
1,3-Dichlorobenzene	ND		8.0	6.2	ug/L			04/18/18 13:36	8
1,3-Dichloropropane	ND		8.0	6.0	ug/L			04/18/18 13:36	8
1,4-Dichlorobenzene	ND		8.0	6.7	ug/L			04/18/18 13:36	8
1,4-Dioxane	ND *		400	75	ug/L			04/18/18 13:36	8
2,2-Dichloropropane	ND		8.0	3.2	ug/L			04/18/18 13:36	8
2-Butanone (MEK)	ND *		80	11	ug/L			04/18/18 13:36	8
2-Chlorotoluene	ND		8.0	6.9	ug/L			04/18/18 13:36	8
2-Hexanone	ND		80	9.9	ug/L			04/18/18 13:36	8
4-Chlorotoluene	ND		8.0	6.7	ug/L			04/18/18 13:36	8
4-Isopropyltoluene	ND		8.0	2.5	ug/L			04/18/18 13:36	8
4-Methyl-2-pentanone (MIBK)	ND		80	17	ug/L			04/18/18 13:36	8
Acetone	ND *		400	24	ug/L			04/18/18 13:36	8
Benzene	ND		8.0	3.3	ug/L			04/18/18 13:36	8
Bromobenzene	ND		8.0	6.4	ug/L			04/18/18 13:36	8
Bromoform	ND		8.0	2.1	ug/L			04/18/18 13:36	8
Bromomethane	ND		16	5.5	ug/L			04/18/18 13:36	8
Carbon disulfide	ND		80	1.5	ug/L			04/18/18 13:36	8
Carbon tetrachloride	ND		8.0	2.2	ug/L			04/18/18 13:36	8
Chlorobenzene	ND		8.0	6.0	ug/L			04/18/18 13:36	8
Chlorobromomethane	ND		8.0	7.0	ug/L			04/18/18 13:36	8
Chlorodibromomethane	ND		4.0	2.6	ug/L			04/18/18 13:36	8
Chloroethane	ND		16	2.6	ug/L			04/18/18 13:36	8
Chloroform	ND		8.0	2.7	ug/L			04/18/18 13:36	8
Chloromethane	ND		16	2.8	ug/L			04/18/18 13:36	8
cis-1,2-Dichloroethene	110		8.0	6.5	ug/L			04/18/18 13:36	8
cis-1,3-Dichloropropene	ND		3.2	2.9	ug/L			04/18/18 13:36	8
Dibromomethane	ND		8.0	3.3	ug/L			04/18/18 13:36	8
Dichlorobromomethane	ND		4.0	3.1	ug/L			04/18/18 13:36	8
Dichlorodifluoromethane	ND		8.0	5.4	ug/L			04/18/18 13:36	8
Ethyl ether	ND		8.0	5.8	ug/L			04/18/18 13:36	8
Ethylbenzene	ND		8.0	5.9	ug/L			04/18/18 13:36	8
Ethylene Dibromide	ND		8.0	5.8	ug/L			04/18/18 13:36	8
Hexachlorobutadiene	ND		3.2	2.2	ug/L			04/18/18 13:36	8

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-OSW4I
Date Collected: 04/11/18 12:25
Date Received: 04/12/18 01:00

Lab Sample ID: 480-133969-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		80	4.7	ug/L			04/18/18 13:36	8
Isopropylbenzene	ND		8.0	6.3	ug/L			04/18/18 13:36	8
Methyl tert-butyl ether	ND		8.0	1.3	ug/L			04/18/18 13:36	8
Methylene Chloride	ND		8.0	3.5	ug/L			04/18/18 13:36	8
m-Xylene & p-Xylene	ND		16	5.3	ug/L			04/18/18 13:36	8
Naphthalene	ND		40	3.4	ug/L			04/18/18 13:36	8
n-Butylbenzene	ND		8.0	5.1	ug/L			04/18/18 13:36	8
N-Propylbenzene	ND		8.0	5.5	ug/L			04/18/18 13:36	8
o-Xylene	ND		8.0	6.1	ug/L			04/18/18 13:36	8
sec-Butylbenzene	ND		8.0	6.0	ug/L			04/18/18 13:36	8
Styrene	ND		8.0	5.8	ug/L			04/18/18 13:36	8
Tert-amyl methyl ether	ND		40	2.2	ug/L			04/18/18 13:36	8
Tert-butyl ethyl ether	ND		40	2.4	ug/L			04/18/18 13:36	8
tert-Butylbenzene	ND		8.0	6.5	ug/L			04/18/18 13:36	8
Tetrachloroethene	ND		8.0	2.9	ug/L			04/18/18 13:36	8
Tetrahydrofuran	ND *		80	10	ug/L			04/18/18 13:36	8
Toluene	ND		8.0	4.1	ug/L			04/18/18 13:36	8
trans-1,2-Dichloroethene	ND		8.0	7.2	ug/L			04/18/18 13:36	8
trans-1,3-Dichloropropene	ND		3.2	3.0	ug/L			04/18/18 13:36	8
Trichloroethene	270		8.0	3.7	ug/L			04/18/18 13:36	8
Trichlorofluoromethane	ND		8.0	7.0	ug/L			04/18/18 13:36	8
Vinyl chloride	9.4		8.0	7.2	ug/L			04/18/18 13:36	8
Surrogate	%Recovery	Qualifier			Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112				70 - 130			04/18/18 13:36	8
4-Bromofluorobenzene (Surr)	102				70 - 130			04/18/18 13:36	8
Toluene-d8 (Surr)	96				70 - 130			04/18/18 13:36	8
Dibromofluoromethane (Surr)	113				70 - 130			04/18/18 13:36	8

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	100		5.0	1.0	ug/L		04/13/18 09:17	04/13/18 17:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.077		0.010	0.0050	mg/L			04/12/18 08:02	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-PP2

Date Collected: 04/11/18 15:00

Date Received: 04/12/18 01:00

Lab Sample ID: 480-133969-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.0	1.4	ug/L			04/18/18 23:41	4
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			04/18/18 23:41	4
1,1,2,2-Tetrachloroethane	ND		2.0	0.84	ug/L			04/18/18 23:41	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			04/18/18 23:41	4
1,1-Dichloroethane	ND		4.0	1.5	ug/L			04/18/18 23:41	4
1,1-Dichloroethene	1.3	J	4.0	1.2	ug/L			04/18/18 23:41	4
1,1-Dichloropropene	ND		4.0	2.9	ug/L			04/18/18 23:41	4
1,2,3-Trichlorobenzene	ND		4.0	1.6	ug/L			04/18/18 23:41	4
1,2,3-Trichloropropane	ND		4.0	3.6	ug/L			04/18/18 23:41	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			04/18/18 23:41	4
1,2,4-Trimethylbenzene	ND		4.0	3.0	ug/L			04/18/18 23:41	4
1,2-Dibromo-3-Chloropropane	ND		20	1.6	ug/L			04/18/18 23:41	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			04/18/18 23:41	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			04/18/18 23:41	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			04/18/18 23:41	4
1,3,5-Trimethylbenzene	ND		4.0	3.1	ug/L			04/18/18 23:41	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			04/18/18 23:41	4
1,3-Dichloropropane	ND		4.0	3.0	ug/L			04/18/18 23:41	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			04/18/18 23:41	4
1,4-Dioxane	ND	*	200	37	ug/L			04/18/18 23:41	4
2,2-Dichloropropane	ND		4.0	1.6	ug/L			04/18/18 23:41	4
2-Butanone (MEK)	ND	*	40	5.3	ug/L			04/18/18 23:41	4
2-Chlorotoluene	ND		4.0	3.4	ug/L			04/18/18 23:41	4
2-Hexanone	ND		40	5.0	ug/L			04/18/18 23:41	4
4-Chlorotoluene	ND		4.0	3.4	ug/L			04/18/18 23:41	4
4-Isopropyltoluene	ND		4.0	1.2	ug/L			04/18/18 23:41	4
4-Methyl-2-pentanone (MIBK)	ND		40	8.4	ug/L			04/18/18 23:41	4
Acetone	14	J*	200	12	ug/L			04/18/18 23:41	4
Benzene	ND		4.0	1.6	ug/L			04/18/18 23:41	4
Bromobenzene	ND		4.0	3.2	ug/L			04/18/18 23:41	4
Bromoform	ND		4.0	1.0	ug/L			04/18/18 23:41	4
Bromomethane	ND		8.0	2.8	ug/L			04/18/18 23:41	4
Carbon disulfide	ND		40	0.76	ug/L			04/18/18 23:41	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			04/18/18 23:41	4
Chlorobenzene	ND		4.0	3.0	ug/L			04/18/18 23:41	4
Chlorobromomethane	ND		4.0	3.5	ug/L			04/18/18 23:41	4
Chlorodibromomethane	ND		2.0	1.3	ug/L			04/18/18 23:41	4
Chloroethane	ND		8.0	1.3	ug/L			04/18/18 23:41	4
Chloroform	ND		4.0	1.4	ug/L			04/18/18 23:41	4
Chloromethane	ND		8.0	1.4	ug/L			04/18/18 23:41	4
cis-1,2-Dichloroethene	53		4.0	3.2	ug/L			04/18/18 23:41	4
cis-1,3-Dichloropropene	ND		1.6	1.4	ug/L			04/18/18 23:41	4
Dibromomethane	ND		4.0	1.6	ug/L			04/18/18 23:41	4
Dichlorobromomethane	ND		2.0	1.6	ug/L			04/18/18 23:41	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			04/18/18 23:41	4
Ethyl ether	ND		4.0	2.9	ug/L			04/18/18 23:41	4
Ethylbenzene	ND		4.0	3.0	ug/L			04/18/18 23:41	4
Ethylene Dibromide	ND		4.0	2.9	ug/L			04/18/18 23:41	4
Hexachlorobutadiene	ND		1.6	1.1	ug/L			04/18/18 23:41	4

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-PP2

Lab Sample ID: 480-133969-3

Date Collected: 04/11/18 15:00

Matrix: Water

Date Received: 04/12/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		40	2.4	ug/L			04/18/18 23:41	4
Isopropylbenzene	ND		4.0	3.2	ug/L			04/18/18 23:41	4
Methyl tert-butyl ether	ND		4.0	0.64	ug/L			04/18/18 23:41	4
Methylene Chloride	4.0	B	4.0	1.8	ug/L			04/18/18 23:41	4
m-Xylene & p-Xylene	ND		8.0	2.6	ug/L			04/18/18 23:41	4
Naphthalene	ND		20	1.7	ug/L			04/18/18 23:41	4
n-Butylbenzene	ND		4.0	2.6	ug/L			04/18/18 23:41	4
N-Propylbenzene	ND		4.0	2.8	ug/L			04/18/18 23:41	4
o-Xylene	ND		4.0	3.0	ug/L			04/18/18 23:41	4
sec-Butylbenzene	ND		4.0	3.0	ug/L			04/18/18 23:41	4
Styrene	ND		4.0	2.9	ug/L			04/18/18 23:41	4
Tert-amyl methyl ether	ND		20	1.1	ug/L			04/18/18 23:41	4
Tert-butyl ethyl ether	ND		20	1.2	ug/L			04/18/18 23:41	4
tert-Butylbenzene	ND		4.0	3.2	ug/L			04/18/18 23:41	4
Tetrachloroethene	ND		4.0	1.4	ug/L			04/18/18 23:41	4
Tetrahydrofuran	ND *		40	5.0	ug/L			04/18/18 23:41	4
Toluene	ND		4.0	2.0	ug/L			04/18/18 23:41	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			04/18/18 23:41	4
trans-1,3-Dichloropropene	ND		1.6	1.5	ug/L			04/18/18 23:41	4
Trichloroethene	110		4.0	1.8	ug/L			04/18/18 23:41	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			04/18/18 23:41	4
Vinyl chloride	5.6		4.0	3.6	ug/L			04/18/18 23:41	4
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107			70 - 130				04/18/18 23:41	4
4-Bromofluorobenzene (Surr)	101			70 - 130				04/18/18 23:41	4
Toluene-d8 (Surr)	100			70 - 130				04/18/18 23:41	4
Dibromofluoromethane (Surr)	106			70 - 130				04/18/18 23:41	4

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	170		5.0	1.0	ug/L		04/13/18 09:17	04/13/18 17:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.077		0.010	0.0050	mg/L			04/12/18 08:02	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-CLW22

Lab Sample ID: 480-133969-4

Matrix: Water

Date Collected: 04/11/18 09:40

Date Received: 04/12/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/18/18 14:23	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/18/18 14:23	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/18/18 14:23	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/18/18 14:23	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/18/18 14:23	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/18/18 14:23	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/18/18 14:23	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/18/18 14:23	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/18/18 14:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/18/18 14:23	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/18/18 14:23	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/18/18 14:23	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/18/18 14:23	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/18/18 14:23	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/18/18 14:23	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/18/18 14:23	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/18/18 14:23	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/18/18 14:23	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/18/18 14:23	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/18/18 14:23	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/18/18 14:23	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/18/18 14:23	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/18/18 14:23	1
2-Hexanone	ND		10	1.2	ug/L			04/18/18 14:23	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/18/18 14:23	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/18/18 14:23	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/18/18 14:23	1
Acetone	ND *		50	3.0	ug/L			04/18/18 14:23	1
Benzene	ND		1.0	0.41	ug/L			04/18/18 14:23	1
Bromobenzene	ND		1.0	0.80	ug/L			04/18/18 14:23	1
Bromoform	ND		1.0	0.26	ug/L			04/18/18 14:23	1
Bromomethane	ND		2.0	0.69	ug/L			04/18/18 14:23	1
Carbon disulfide	ND		10	0.19	ug/L			04/18/18 14:23	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/18/18 14:23	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/18/18 14:23	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/18/18 14:23	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/18/18 14:23	1
Chloroethane	ND		2.0	0.32	ug/L			04/18/18 14:23	1
Chloroform	ND		1.0	0.34	ug/L			04/18/18 14:23	1
Chloromethane	ND		2.0	0.35	ug/L			04/18/18 14:23	1
cis-1,2-Dichloroethene	1.5		1.0	0.81	ug/L			04/18/18 14:23	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/18/18 14:23	1
Dibromomethane	ND		1.0	0.41	ug/L			04/18/18 14:23	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/18/18 14:23	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/18/18 14:23	1
Ethyl ether	ND		1.0	0.72	ug/L			04/18/18 14:23	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/18/18 14:23	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/18/18 14:23	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/18/18 14:23	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-CLW22

Lab Sample ID: 480-133969-4

Date Collected: 04/11/18 09:40

Matrix: Water

Date Received: 04/12/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/18/18 14:23	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/18/18 14:23	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/18/18 14:23	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/18/18 14:23	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/18/18 14:23	1
Naphthalene	ND		5.0	0.43	ug/L			04/18/18 14:23	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/18/18 14:23	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/18/18 14:23	1
o-Xylene	ND		1.0	0.76	ug/L			04/18/18 14:23	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/18/18 14:23	1
Styrene	ND		1.0	0.73	ug/L			04/18/18 14:23	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/18/18 14:23	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/18/18 14:23	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/18/18 14:23	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/18/18 14:23	1
Tetrahydrofuran	ND *		10	1.3	ug/L			04/18/18 14:23	1
Toluene	ND		1.0	0.51	ug/L			04/18/18 14:23	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/18/18 14:23	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/18/18 14:23	1
Trichloroethene	7.9		1.0	0.46	ug/L			04/18/18 14:23	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/18/18 14:23	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/18/18 14:23	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106			70 - 130				04/18/18 14:23	1
4-Bromofluorobenzene (Surr)	97			70 - 130				04/18/18 14:23	1
Toluene-d8 (Surr)	96			70 - 130				04/18/18 14:23	1
Dibromofluoromethane (Surr)	105			70 - 130				04/18/18 14:23	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	11		5.0	1.0	ug/L		04/13/18 09:17	04/13/18 17:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.0063	J	0.010	0.0050	mg/L			04/12/18 08:02	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-CLW22B

Lab Sample ID: 480-133969-5

Matrix: Water

Date Collected: 04/11/18 10:45

Date Received: 04/12/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/18/18 14:47	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/18/18 14:47	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/18/18 14:47	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/18/18 14:47	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/18/18 14:47	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/18/18 14:47	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/18/18 14:47	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/18/18 14:47	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/18/18 14:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/18/18 14:47	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/18/18 14:47	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/18/18 14:47	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/18/18 14:47	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/18/18 14:47	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/18/18 14:47	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/18/18 14:47	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/18/18 14:47	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/18/18 14:47	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/18/18 14:47	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/18/18 14:47	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/18/18 14:47	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/18/18 14:47	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/18/18 14:47	1
2-Hexanone	ND		10	1.2	ug/L			04/18/18 14:47	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/18/18 14:47	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/18/18 14:47	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/18/18 14:47	1
Acetone	ND *		50	3.0	ug/L			04/18/18 14:47	1
Benzene	ND		1.0	0.41	ug/L			04/18/18 14:47	1
Bromobenzene	ND		1.0	0.80	ug/L			04/18/18 14:47	1
Bromoform	ND		1.0	0.26	ug/L			04/18/18 14:47	1
Bromomethane	ND		2.0	0.69	ug/L			04/18/18 14:47	1
Carbon disulfide	ND		10	0.19	ug/L			04/18/18 14:47	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/18/18 14:47	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/18/18 14:47	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/18/18 14:47	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/18/18 14:47	1
Chloroethane	ND		2.0	0.32	ug/L			04/18/18 14:47	1
Chloroform	ND		1.0	0.34	ug/L			04/18/18 14:47	1
Chloromethane	ND		2.0	0.35	ug/L			04/18/18 14:47	1
cis-1,2-Dichloroethene	1.7		1.0	0.81	ug/L			04/18/18 14:47	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/18/18 14:47	1
Dibromomethane	ND		1.0	0.41	ug/L			04/18/18 14:47	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/18/18 14:47	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/18/18 14:47	1
Ethyl ether	ND		1.0	0.72	ug/L			04/18/18 14:47	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/18/18 14:47	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/18/18 14:47	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/18/18 14:47	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-CLW22B

Lab Sample ID: 480-133969-5

Matrix: Water

Date Collected: 04/11/18 10:45
Date Received: 04/12/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/18/18 14:47	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/18/18 14:47	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/18/18 14:47	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/18/18 14:47	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/18/18 14:47	1
Naphthalene	ND		5.0	0.43	ug/L			04/18/18 14:47	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/18/18 14:47	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/18/18 14:47	1
o-Xylene	ND		1.0	0.76	ug/L			04/18/18 14:47	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/18/18 14:47	1
Styrene	ND		1.0	0.73	ug/L			04/18/18 14:47	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/18/18 14:47	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/18/18 14:47	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/18/18 14:47	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/18/18 14:47	1
Tetrahydrofuran	ND *		10	1.3	ug/L			04/18/18 14:47	1
Toluene	ND		1.0	0.51	ug/L			04/18/18 14:47	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/18/18 14:47	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/18/18 14:47	1
Trichloroethene	11		1.0	0.46	ug/L			04/18/18 14:47	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/18/18 14:47	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/18/18 14:47	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114			70 - 130				04/18/18 14:47	1
4-Bromofluorobenzene (Surr)	97			70 - 130				04/18/18 14:47	1
Toluene-d8 (Surr)	98			70 - 130				04/18/18 14:47	1
Dibromofluoromethane (Surr)	114			70 - 130				04/18/18 14:47	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	14		5.0	1.0	ug/L		04/13/18 09:17	04/13/18 17:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.0063	J	0.010	0.0050	mg/L			04/12/18 08:02	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-CLW17

Lab Sample ID: 480-133969-6

Matrix: Water

Date Collected: 04/11/18 13:00

Date Received: 04/12/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/18/18 15:11	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/18/18 15:11	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/18/18 15:11	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/18/18 15:11	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/18/18 15:11	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/18/18 15:11	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/18/18 15:11	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/18/18 15:11	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/18/18 15:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/18/18 15:11	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/18/18 15:11	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/18/18 15:11	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/18/18 15:11	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/18/18 15:11	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/18/18 15:11	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/18/18 15:11	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/18/18 15:11	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/18/18 15:11	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/18/18 15:11	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/18/18 15:11	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/18/18 15:11	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/18/18 15:11	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/18/18 15:11	1
2-Hexanone	ND		10	1.2	ug/L			04/18/18 15:11	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/18/18 15:11	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/18/18 15:11	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/18/18 15:11	1
Acetone	ND *		50	3.0	ug/L			04/18/18 15:11	1
Benzene	ND		1.0	0.41	ug/L			04/18/18 15:11	1
Bromobenzene	ND		1.0	0.80	ug/L			04/18/18 15:11	1
Bromoform	ND		1.0	0.26	ug/L			04/18/18 15:11	1
Bromomethane	ND		2.0	0.69	ug/L			04/18/18 15:11	1
Carbon disulfide	ND		10	0.19	ug/L			04/18/18 15:11	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/18/18 15:11	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/18/18 15:11	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/18/18 15:11	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/18/18 15:11	1
Chloroethane	ND		2.0	0.32	ug/L			04/18/18 15:11	1
Chloroform	ND		1.0	0.34	ug/L			04/18/18 15:11	1
Chloromethane	ND		2.0	0.35	ug/L			04/18/18 15:11	1
cis-1,2-Dichloroethene	3.6		1.0	0.81	ug/L			04/18/18 15:11	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/18/18 15:11	1
Dibromomethane	ND		1.0	0.41	ug/L			04/18/18 15:11	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/18/18 15:11	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/18/18 15:11	1
Ethyl ether	ND		1.0	0.72	ug/L			04/18/18 15:11	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/18/18 15:11	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/18/18 15:11	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/18/18 15:11	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-CLW17
Date Collected: 04/11/18 13:00
Date Received: 04/12/18 01:00

Lab Sample ID: 480-133969-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/18/18 15:11	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/18/18 15:11	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/18/18 15:11	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/18/18 15:11	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/18/18 15:11	1
Naphthalene	ND		5.0	0.43	ug/L			04/18/18 15:11	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/18/18 15:11	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/18/18 15:11	1
o-Xylene	ND		1.0	0.76	ug/L			04/18/18 15:11	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/18/18 15:11	1
Styrene	ND		1.0	0.73	ug/L			04/18/18 15:11	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/18/18 15:11	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/18/18 15:11	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/18/18 15:11	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/18/18 15:11	1
Tetrahydrofuran	ND *		10	1.3	ug/L			04/18/18 15:11	1
Toluene	ND		1.0	0.51	ug/L			04/18/18 15:11	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/18/18 15:11	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/18/18 15:11	1
Trichloroethene	11		1.0	0.46	ug/L			04/18/18 15:11	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/18/18 15:11	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/18/18 15:11	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110			70 - 130				04/18/18 15:11	1
4-Bromofluorobenzene (Surr)	99			70 - 130				04/18/18 15:11	1
Toluene-d8 (Surr)	97			70 - 130				04/18/18 15:11	1
Dibromofluoromethane (Surr)	105			70 - 130				04/18/18 15:11	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	41		5.0	1.0	ug/L		04/13/18 09:17	04/13/18 17:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.037		0.010	0.0050	mg/L			04/12/18 08:02	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-CLW17B

Lab Sample ID: 480-133969-7

Matrix: Water

Date Collected: 04/11/18 15:20

Date Received: 04/12/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/18/18 15:34	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/18/18 15:34	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/18/18 15:34	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/18/18 15:34	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/18/18 15:34	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/18/18 15:34	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/18/18 15:34	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/18/18 15:34	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/18/18 15:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/18/18 15:34	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/18/18 15:34	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/18/18 15:34	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/18/18 15:34	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/18/18 15:34	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/18/18 15:34	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/18/18 15:34	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/18/18 15:34	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/18/18 15:34	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/18/18 15:34	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/18/18 15:34	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/18/18 15:34	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/18/18 15:34	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/18/18 15:34	1
2-Hexanone	ND		10	1.2	ug/L			04/18/18 15:34	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/18/18 15:34	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/18/18 15:34	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/18/18 15:34	1
Acetone	ND *		50	3.0	ug/L			04/18/18 15:34	1
Benzene	ND		1.0	0.41	ug/L			04/18/18 15:34	1
Bromobenzene	ND		1.0	0.80	ug/L			04/18/18 15:34	1
Bromoform	ND		1.0	0.26	ug/L			04/18/18 15:34	1
Bromomethane	ND		2.0	0.69	ug/L			04/18/18 15:34	1
Carbon disulfide	ND		10	0.19	ug/L			04/18/18 15:34	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/18/18 15:34	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/18/18 15:34	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/18/18 15:34	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/18/18 15:34	1
Chloroethane	ND		2.0	0.32	ug/L			04/18/18 15:34	1
Chloroform	ND		1.0	0.34	ug/L			04/18/18 15:34	1
Chloromethane	ND		2.0	0.35	ug/L			04/18/18 15:34	1
cis-1,2-Dichloroethene	18		1.0	0.81	ug/L			04/18/18 15:34	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/18/18 15:34	1
Dibromomethane	ND		1.0	0.41	ug/L			04/18/18 15:34	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/18/18 15:34	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/18/18 15:34	1
Ethyl ether	ND		1.0	0.72	ug/L			04/18/18 15:34	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/18/18 15:34	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/18/18 15:34	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/18/18 15:34	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-CLW17B

Lab Sample ID: 480-133969-7

Date Collected: 04/11/18 15:20

Matrix: Water

Date Received: 04/12/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/18/18 15:34	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/18/18 15:34	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/18/18 15:34	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/18/18 15:34	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/18/18 15:34	1
Naphthalene	ND		5.0	0.43	ug/L			04/18/18 15:34	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/18/18 15:34	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/18/18 15:34	1
o-Xylene	ND		1.0	0.76	ug/L			04/18/18 15:34	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/18/18 15:34	1
Styrene	ND		1.0	0.73	ug/L			04/18/18 15:34	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/18/18 15:34	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/18/18 15:34	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/18/18 15:34	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/18/18 15:34	1
Tetrahydrofuran	ND *		10	1.3	ug/L			04/18/18 15:34	1
Toluene	ND		1.0	0.51	ug/L			04/18/18 15:34	1
trans-1,2-Dichloroethene	4.2		1.0	0.90	ug/L			04/18/18 15:34	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/18/18 15:34	1
Trichloroethene	75		1.0	0.46	ug/L			04/18/18 15:34	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/18/18 15:34	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/18/18 15:34	1
Surrogate	%Recovery	Qualifier			Limits		Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109				70 - 130			04/18/18 15:34	1
4-Bromofluorobenzene (Surr)	100				70 - 130			04/18/18 15:34	1
Toluene-d8 (Surr)	98				70 - 130			04/18/18 15:34	1
Dibromofluoromethane (Surr)	110				70 - 130			04/18/18 15:34	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	17		5.0	1.0	ug/L		04/13/18 09:17	04/13/18 17:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.016		0.010	0.0050	mg/L			04/12/18 08:02	1

Surrogate Summary

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (70-130)	BFB (70-130)	TOL (70-130)	DBFM (70-130)						
480-133969-1	C041118-CIW1B	114	102	99	111						
480-133969-2	C041118-OSW4I	112	102	96	113						
480-133969-3	C041118-PP2	107	101	100	106						
480-133969-4	C041118-CLW22	106	97	96	105						
480-133969-5	C041118-CLW22B	114	97	98	114						
480-133969-6	C041118-CLW17	110	99	97	105						
480-133969-7	C041118-CLW17B	109	100	98	110						
LCS 480-409387/5	Lab Control Sample	109	107	102	109						
LCS 480-409598/5	Lab Control Sample	121	103	97	111						
LCSD 480-409387/6	Lab Control Sample Dup	111	100	97	109						
LCSD 480-409598/6	Lab Control Sample Dup	111	101	97	105						
MB 480-409387/8	Method Blank	114	98	95	108						
MB 480-409598/8	Method Blank	108	103	96	107						

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-409387/8

Matrix: Water

Analysis Batch: 409387

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/18/18 11:00	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/18/18 11:00	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/18/18 11:00	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/18/18 11:00	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/18/18 11:00	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/18/18 11:00	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/18/18 11:00	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/18/18 11:00	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/18/18 11:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/18/18 11:00	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/18/18 11:00	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/18/18 11:00	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/18/18 11:00	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/18/18 11:00	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/18/18 11:00	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/18/18 11:00	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/18/18 11:00	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/18/18 11:00	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/18/18 11:00	1
1,4-Dioxane	ND		50	9.3	ug/L			04/18/18 11:00	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/18/18 11:00	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/18/18 11:00	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/18/18 11:00	1
2-Hexanone	ND		10	1.2	ug/L			04/18/18 11:00	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/18/18 11:00	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/18/18 11:00	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/18/18 11:00	1
Acetone	ND		50	3.0	ug/L			04/18/18 11:00	1
Benzene	ND		1.0	0.41	ug/L			04/18/18 11:00	1
Bromobenzene	ND		1.0	0.80	ug/L			04/18/18 11:00	1
Bromoform	ND		1.0	0.26	ug/L			04/18/18 11:00	1
Bromomethane	ND		2.0	0.69	ug/L			04/18/18 11:00	1
Carbon disulfide	ND		10	0.19	ug/L			04/18/18 11:00	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/18/18 11:00	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/18/18 11:00	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/18/18 11:00	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/18/18 11:00	1
Chloroethane	ND		2.0	0.32	ug/L			04/18/18 11:00	1
Chloroform	ND		1.0	0.34	ug/L			04/18/18 11:00	1
Chloromethane	ND		2.0	0.35	ug/L			04/18/18 11:00	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/18/18 11:00	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/18/18 11:00	1
Dibromomethane	ND		1.0	0.41	ug/L			04/18/18 11:00	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/18/18 11:00	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/18/18 11:00	1
Ethyl ether	ND		1.0	0.72	ug/L			04/18/18 11:00	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/18/18 11:00	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/18/18 11:00	1

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-409387/8

Matrix: Water

Analysis Batch: 409387

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/18/18 11:00	1
Isopropyl ether	ND		10	0.59	ug/L			04/18/18 11:00	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/18/18 11:00	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/18/18 11:00	1
Methylene Chloride	0.483	J	1.0	0.44	ug/L			04/18/18 11:00	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/18/18 11:00	1
Naphthalene	ND		5.0	0.43	ug/L			04/18/18 11:00	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/18/18 11:00	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/18/18 11:00	1
o-Xylene	ND		1.0	0.76	ug/L			04/18/18 11:00	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/18/18 11:00	1
Styrene	ND		1.0	0.73	ug/L			04/18/18 11:00	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/18/18 11:00	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/18/18 11:00	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/18/18 11:00	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/18/18 11:00	1
Tetrahydrofuran	ND		10	1.3	ug/L			04/18/18 11:00	1
Toluene	ND		1.0	0.51	ug/L			04/18/18 11:00	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/18/18 11:00	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/18/18 11:00	1
Trichloroethene	ND		1.0	0.46	ug/L			04/18/18 11:00	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/18/18 11:00	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/18/18 11:00	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	114		70 - 130		04/18/18 11:00	1
4-Bromofluorobenzene (Surr)	98		70 - 130		04/18/18 11:00	1
Toluene-d8 (Surr)	95		70 - 130		04/18/18 11:00	1
Dibromofluoromethane (Surr)	108		70 - 130		04/18/18 11:00	1

Lab Sample ID: LCS 480-409387/5

Matrix: Water

Analysis Batch: 409387

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
1,1,1,2-Tetrachloroethane	25.0	25.7		ug/L		103	70 - 130
1,1,1-Trichloroethane	25.0	23.9		ug/L		95	70 - 130
1,1,2,2-Tetrachloroethane	25.0	24.8		ug/L		99	70 - 130
1,1,2-Trichloroethane	25.0	24.4		ug/L		97	70 - 130
1,1-Dichloroethane	25.0	23.8		ug/L		95	70 - 130
1,1-Dichloroethene	25.0	23.6		ug/L		95	70 - 130
1,1-Dichloropropene	25.0	23.0		ug/L		92	70 - 130
1,2,3-Trichlorobenzene	25.0	24.4		ug/L		98	70 - 130
1,2,3-Trichloropropane	25.0	28.3		ug/L		113	70 - 130
1,2,4-Trichlorobenzene	25.0	23.0		ug/L		92	70 - 130
1,2,4-Trimethylbenzene	25.0	23.2		ug/L		93	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.5		ug/L		98	70 - 130
1,2-Dichlorobenzene	25.0	24.4		ug/L		98	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-409387/5

Matrix: Water

Analysis Batch: 409387

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits	
	Added	Result	Qualifier						
1,2-Dichloroethane	25.0	24.8		ug/L		99	70 - 130		
1,2-Dichloropropane	25.0	23.8		ug/L		95	70 - 130		
1,3,5-Trimethylbenzene	25.0	22.7		ug/L		91	70 - 130		
1,3-Dichlorobenzene	25.0	24.7		ug/L		99	70 - 130		
1,3-Dichloropropane	25.0	24.4		ug/L		98	70 - 130		
1,4-Dichlorobenzene	25.0	23.9		ug/L		96	70 - 130		
1,4-Dioxane	500	510		ug/L		102	70 - 130		
2,2-Dichloropropane	25.0	23.7		ug/L		95	70 - 130		
2-Butanone (MEK)	125	246	*	ug/L		197	70 - 130		
2-Chlorotoluene	25.0	22.3		ug/L		89	70 - 130		
2-Hexanone	125	134		ug/L		107	70 - 130		
4-Chlorotoluene	25.0	22.7		ug/L		91	70 - 130		
4-Isopropyltoluene	25.0	23.5		ug/L		94	70 - 130		
4-Methyl-2-pentanone (MIBK)	125	132		ug/L		106	70 - 130		
Acetone	125	166	*	ug/L		133	70 - 130		
Benzene	25.0	23.5		ug/L		94	70 - 130		
Bromobenzene	25.0	23.2		ug/L		93	70 - 130		
Bromoform	25.0	24.7		ug/L		99	70 - 130		
Bromomethane	25.0	25.9		ug/L		104	70 - 130		
Carbon disulfide	25.0	22.0		ug/L		88	70 - 130		
Carbon tetrachloride	25.0	24.3		ug/L		97	70 - 130		
Chlorobenzene	25.0	23.7		ug/L		95	70 - 130		
Chlorobromomethane	25.0	26.0		ug/L		104	70 - 130		
Chlorodibromomethane	25.0	24.9		ug/L		100	70 - 130		
Chloroethane	25.0	24.7		ug/L		99	70 - 130		
Chloroform	25.0	23.6		ug/L		94	70 - 130		
Chloromethane	25.0	20.5		ug/L		82	70 - 130		
cis-1,2-Dichloroethene	25.0	25.1		ug/L		100	70 - 130		
cis-1,3-Dichloropropene	25.0	24.7		ug/L		99	70 - 130		
Dibromomethane	25.0	25.6		ug/L		102	70 - 130		
Dichlorobromomethane	25.0	24.0		ug/L		96	70 - 130		
Dichlorodifluoromethane	25.0	22.7		ug/L		91	70 - 130		
Ethyl ether	25.0	24.6		ug/L		98	70 - 130		
Ethylbenzene	25.0	24.4		ug/L		97	70 - 130		
Ethylene Dibromide	25.0	26.2		ug/L		105	70 - 130		
Hexachlorobutadiene	25.0	24.5		ug/L		98	70 - 130		
Isopropyl ether	25.0	22.8		ug/L		91	70 - 130		
Isopropylbenzene	25.0	22.4		ug/L		90	70 - 130		
Methyl tert-butyl ether	25.0	24.3		ug/L		97	70 - 130		
Methylene Chloride	25.0	22.7		ug/L		91	70 - 130		
m-Xylene & p-Xylene	25.0	23.9		ug/L		96	70 - 130		
Naphthalene	25.0	24.6		ug/L		98	70 - 130		
n-Butylbenzene	25.0	23.7		ug/L		95	70 - 130		
N-Propylbenzene	25.0	22.4		ug/L		89	70 - 130		
o-Xylene	25.0	24.1		ug/L		96	70 - 130		
sec-Butylbenzene	25.0	22.8		ug/L		91	70 - 130		
Styrene	25.0	24.2		ug/L		97	70 - 130		
Tert-amyl methyl ether	25.0	26.6		ug/L		106	70 - 130		

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-409387/5

Matrix: Water

Analysis Batch: 409387

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits	
	Added	Result	Qualifier				Limits		
Tert-butyl ethyl ether	25.0	24.5		ug/L		98	70 - 130		
tert-Butylbenzene	25.0	24.6		ug/L		98	70 - 130		
Tetrachloroethene	25.0	27.5		ug/L		110	70 - 130		
Tetrahydrofuran	50.0	67.2 *		ug/L		134	70 - 130		
Toluene	25.0	23.8		ug/L		95	70 - 130		
trans-1,2-Dichloroethene	25.0	23.7		ug/L		95	70 - 130		
trans-1,3-Dichloropropene	25.0	24.2		ug/L		97	70 - 130		
Trichloroethene	25.0	24.0		ug/L		96	70 - 130		
Trichlorofluoromethane	25.0	25.7		ug/L		103	70 - 130		
Vinyl chloride	25.0	20.8		ug/L		83	70 - 130		
Surrogate	LCS	LCS	Limits						
	%Recovery	Qualifier							
1,2-Dichloroethane-d4 (Surr)	109		70 - 130						
4-Bromofluorobenzene (Surr)	107		70 - 130						
Toluene-d8 (Surr)	102		70 - 130						
Dibromofluoromethane (Surr)	109		70 - 130						

Lab Sample ID: LCSD 480-409387/6

Matrix: Water

Analysis Batch: 409387

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier				Limits		
1,1,1,2-Tetrachloroethane	25.0	26.3		ug/L		105	70 - 130	2	20
1,1,1-Trichloroethane	25.0	26.0		ug/L		104	70 - 130	9	20
1,1,2,2-Tetrachloroethane	25.0	25.2		ug/L		101	70 - 130	2	20
1,1,2-Trichloroethane	25.0	24.7		ug/L		99	70 - 130	1	20
1,1-Dichloroethane	25.0	25.3		ug/L		101	70 - 130	6	20
1,1-Dichloroethene	25.0	25.1		ug/L		100	70 - 130	6	20
1,1-Dichloropropene	25.0	25.6		ug/L		102	70 - 130	11	20
1,2,3-Trichlorobenzene	25.0	24.6		ug/L		99	70 - 130	1	20
1,2,3-Trichloropropane	25.0	27.9		ug/L		112	70 - 130	1	20
1,2,4-Trichlorobenzene	25.0	23.9		ug/L		96	70 - 130	4	20
1,2,4-Trimethylbenzene	25.0	24.2		ug/L		97	70 - 130	4	20
1,2-Dibromo-3-Chloropropane	25.0	26.3		ug/L		105	70 - 130	7	20
1,2-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130	3	20
1,2-Dichloroethane	25.0	26.5		ug/L		106	70 - 130	6	20
1,2-Dichloropropane	25.0	24.9		ug/L		100	70 - 130	5	20
1,3,5-Trimethylbenzene	25.0	24.0		ug/L		96	70 - 130	6	20
1,3-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130	2	20
1,3-Dichloropropane	25.0	24.5		ug/L		98	70 - 130	0	20
1,4-Dichlorobenzene	25.0	24.9		ug/L		100	70 - 130	4	20
1,4-Dioxane	500	668 *		ug/L		134	70 - 130	27	20
2,2-Dichloropropane	25.0	24.9		ug/L		100	70 - 130	5	20
2-Butanone (MEK)	125	253 *		ug/L		203	70 - 130	3	20
2-Chlorotoluene	25.0	24.3		ug/L		97	70 - 130	8	20
2-Hexanone	125	135		ug/L		108	70 - 130	1	20
4-Chlorotoluene	25.0	24.0		ug/L		96	70 - 130	5	20
4-Isopropyltoluene	25.0	25.1		ug/L		101	70 - 130	7	20

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-409387/6

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 409387

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.		RPD	RPD Limit
	Added	Result	Qualifier				Limits	RPD		
4-Methyl-2-pentanone (MIBK)	125	127		ug/L	101	70 - 130	4	20		
Acetone	125	172	*	ug/L	138	70 - 130	4	20		
Benzene	25.0	25.1		ug/L	101	70 - 130	7	20		
Bromobenzene	25.0	24.4		ug/L	98	70 - 130	5	20		
Bromoform	25.0	24.2		ug/L	97	70 - 130	2	20		
Bromomethane	25.0	28.6		ug/L	114	70 - 130	10	20		
Carbon disulfide	25.0	23.9		ug/L	96	70 - 130	8	20		
Carbon tetrachloride	25.0	27.1		ug/L	108	70 - 130	11	20		
Chlorobenzene	25.0	23.9		ug/L	96	70 - 130	1	20		
Chlorobromomethane	25.0	27.9		ug/L	112	70 - 130	7	20		
Chlorodibromomethane	25.0	25.7		ug/L	103	70 - 130	3	20		
Chloroethane	25.0	27.1		ug/L	109	70 - 130	9	20		
Chloroform	25.0	25.0		ug/L	100	70 - 130	6	20		
Chloromethane	25.0	21.5		ug/L	86	70 - 130	5	20		
cis-1,2-Dichloroethene	25.0	26.3		ug/L	105	70 - 130	5	20		
cis-1,3-Dichloropropene	25.0	25.6		ug/L	102	70 - 130	4	20		
Dibromomethane	25.0	26.7		ug/L	107	70 - 130	4	20		
Dichlorobromomethane	25.0	25.8		ug/L	103	70 - 130	7	20		
Dichlorodifluoromethane	25.0	24.0		ug/L	96	70 - 130	6	20		
Ethyl ether	25.0	25.6		ug/L	103	70 - 130	4	20		
Ethylbenzene	25.0	24.3		ug/L	97	70 - 130	0	20		
Ethylene Dibromide	25.0	25.3		ug/L	101	70 - 130	3	20		
Hexachlorobutadiene	25.0	26.1		ug/L	105	70 - 130	7	20		
Isopropyl ether	25.0	24.4		ug/L	97	70 - 130	7	20		
Isopropylbenzene	25.0	23.9		ug/L	96	70 - 130	6	20		
Methyl tert-butyl ether	25.0	26.0		ug/L	104	70 - 130	7	20		
Methylene Chloride	25.0	24.0		ug/L	96	70 - 130	6	20		
m-Xylene & p-Xylene	25.0	24.4		ug/L	97	70 - 130	2	20		
Naphthalene	25.0	25.8		ug/L	103	70 - 130	5	20		
n-Butylbenzene	25.0	24.9		ug/L	99	70 - 130	5	20		
N-Propylbenzene	25.0	23.7		ug/L	95	70 - 130	6	20		
o-Xylene	25.0	23.9		ug/L	96	70 - 130	0	20		
sec-Butylbenzene	25.0	24.4		ug/L	97	70 - 130	7	20		
Styrene	25.0	24.8		ug/L	99	70 - 130	2	20		
Tert-amyl methyl ether	25.0	27.6		ug/L	111	70 - 130	4	20		
Tert-butyl ethyl ether	25.0	25.9		ug/L	104	70 - 130	6	20		
tert-Butylbenzene	25.0	24.7		ug/L	99	70 - 130	0	20		
Tetrachloroethene	25.0	27.8		ug/L	111	70 - 130	1	20		
Tetrahydrofuran	50.0	69.4	*	ug/L	139	70 - 130	3	20		
Toluene	25.0	24.1		ug/L	96	70 - 130	1	20		
trans-1,2-Dichloroethene	25.0	24.9		ug/L	100	70 - 130	5	20		
trans-1,3-Dichloropropene	25.0	23.5		ug/L	94	70 - 130	3	20		
Trichloroethene	25.0	25.1		ug/L	100	70 - 130	5	20		
Trichlorofluoromethane	25.0	28.1		ug/L	112	70 - 130	9	20		
Vinyl chloride	25.0	23.5		ug/L	94	70 - 130	12	20		

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)			111		70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-409387/6

Matrix: Water

Analysis Batch: 409387

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
Toluene-d8 (Surr)	97		70 - 130
Dibromofluoromethane (Surr)	109		70 - 130

Lab Sample ID: MB 480-409598/8

Matrix: Water

Analysis Batch: 409598

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/18/18 23:02	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/18/18 23:02	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/18/18 23:02	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/18/18 23:02	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/18/18 23:02	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/18/18 23:02	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/18/18 23:02	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/18/18 23:02	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/18/18 23:02	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/18/18 23:02	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/18/18 23:02	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/18/18 23:02	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/18/18 23:02	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/18/18 23:02	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/18/18 23:02	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/18/18 23:02	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/18/18 23:02	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/18/18 23:02	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/18/18 23:02	1
1,4-Dioxane	17.0	J	50	9.3	ug/L			04/18/18 23:02	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/18/18 23:02	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/18/18 23:02	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/18/18 23:02	1
2-Hexanone	ND		10	1.2	ug/L			04/18/18 23:02	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/18/18 23:02	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/18/18 23:02	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/18/18 23:02	1
Acetone	ND		50	3.0	ug/L			04/18/18 23:02	1
Benzene	ND		1.0	0.41	ug/L			04/18/18 23:02	1
Bromobenzene	ND		1.0	0.80	ug/L			04/18/18 23:02	1
Bromoform	ND		1.0	0.26	ug/L			04/18/18 23:02	1
Bromomethane	ND		2.0	0.69	ug/L			04/18/18 23:02	1
Carbon disulfide	ND		10	0.19	ug/L			04/18/18 23:02	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/18/18 23:02	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/18/18 23:02	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/18/18 23:02	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/18/18 23:02	1
Chloroethane	ND		2.0	0.32	ug/L			04/18/18 23:02	1
Chloroform	ND		1.0	0.34	ug/L			04/18/18 23:02	1

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-409598/8

Matrix: Water

Analysis Batch: 409598

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Chloromethane	ND				2.0	0.35	ug/L			04/18/18 23:02	1
cis-1,2-Dichloroethene	ND				1.0	0.81	ug/L			04/18/18 23:02	1
cis-1,3-Dichloropropene	ND				0.40	0.36	ug/L			04/18/18 23:02	1
Dibromomethane	ND				1.0	0.41	ug/L			04/18/18 23:02	1
Dichlorobromomethane	ND				0.50	0.39	ug/L			04/18/18 23:02	1
Dichlorodifluoromethane	ND				1.0	0.68	ug/L			04/18/18 23:02	1
Ethyl ether	ND				1.0	0.72	ug/L			04/18/18 23:02	1
Ethylbenzene	ND				1.0	0.74	ug/L			04/18/18 23:02	1
Ethylene Dibromide	ND				1.0	0.73	ug/L			04/18/18 23:02	1
Hexachlorobutadiene	ND				0.40	0.28	ug/L			04/18/18 23:02	1
Isopropyl ether	ND				10	0.59	ug/L			04/18/18 23:02	1
Isopropylbenzene	ND				1.0	0.79	ug/L			04/18/18 23:02	1
Methyl tert-butyl ether	ND				1.0	0.16	ug/L			04/18/18 23:02	1
Methylene Chloride	0.678	J			1.0	0.44	ug/L			04/18/18 23:02	1
m-Xylene & p-Xylene	ND				2.0	0.66	ug/L			04/18/18 23:02	1
Naphthalene	ND				5.0	0.43	ug/L			04/18/18 23:02	1
n-Butylbenzene	ND				1.0	0.64	ug/L			04/18/18 23:02	1
N-Propylbenzene	ND				1.0	0.69	ug/L			04/18/18 23:02	1
o-Xylene	ND				1.0	0.76	ug/L			04/18/18 23:02	1
sec-Butylbenzene	ND				1.0	0.75	ug/L			04/18/18 23:02	1
Styrene	ND				1.0	0.73	ug/L			04/18/18 23:02	1
Tert-amyl methyl ether	ND				5.0	0.27	ug/L			04/18/18 23:02	1
Tert-butyl ethyl ether	ND				5.0	0.29	ug/L			04/18/18 23:02	1
tert-Butylbenzene	ND				1.0	0.81	ug/L			04/18/18 23:02	1
Tetrachloroethene	ND				1.0	0.36	ug/L			04/18/18 23:02	1
Tetrahydrofuran	ND				10	1.3	ug/L			04/18/18 23:02	1
Toluene	ND				1.0	0.51	ug/L			04/18/18 23:02	1
trans-1,2-Dichloroethene	ND				1.0	0.90	ug/L			04/18/18 23:02	1
trans-1,3-Dichloropropene	ND				0.40	0.37	ug/L			04/18/18 23:02	1
Trichloroethene	ND				1.0	0.46	ug/L			04/18/18 23:02	1
Trichlorofluoromethane	ND				1.0	0.88	ug/L			04/18/18 23:02	1
Vinyl chloride	ND				1.0	0.90	ug/L			04/18/18 23:02	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		70 - 130			1
4-Bromofluorobenzene (Surr)	103		70 - 130			1
Toluene-d8 (Surr)	96		70 - 130			1
Dibromofluoromethane (Surr)	107		70 - 130			1

Lab Sample ID: LCS 480-409598/5

Matrix: Water

Analysis Batch: 409598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS LCS			%Rec.	
		Result	Qualifier	Unit	D	%Rec
1,1,1,2-Tetrachloroethane	25.0	27.7		ug/L	111	70 - 130
1,1,1-Trichloroethane	25.0	28.8		ug/L	115	70 - 130
1,1,2,2-Tetrachloroethane	25.0	27.1		ug/L	108	70 - 130
1,1,2-Trichloroethane	25.0	25.9		ug/L	104	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-409598/5

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 409598

Analyte	Spike	LCS		Unit	D	%Rec	%Rec.	Limits	5
	Added	Result	Qualifier						
1,1-Dichloroethane	25.0	28.1		ug/L		113	70 - 130		6
1,1-Dichloroethene	25.0	28.4		ug/L		114	70 - 130		7
1,1-Dichloropropene	25.0	28.1		ug/L		112	70 - 130		8
1,2,3-Trichlorobenzene	25.0	25.3		ug/L		101	70 - 130		9
1,2,3-Trichloropropane	25.0	28.4		ug/L		113	70 - 130		10
1,2,4-Trichlorobenzene	25.0	25.1		ug/L		100	70 - 130		11
1,2,4-Trimethylbenzene	25.0	25.0		ug/L		100	70 - 130		12
1,2-Dibromo-3-Chloropropane	25.0	28.8		ug/L		115	70 - 130		13
1,2-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130		14
1,2-Dichloroethane	25.0	29.0		ug/L		116	70 - 130		15
1,2-Dichloropropane	25.0	26.8		ug/L		107	70 - 130		1
1,3,5-Trimethylbenzene	25.0	25.0		ug/L		100	70 - 130		2
1,3-Dichlorobenzene	25.0	26.3		ug/L		105	70 - 130		3
1,3-Dichloropropane	25.0	25.8		ug/L		103	70 - 130		4
1,4-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130		5
1,4-Dioxane	500	432		ug/L		86	70 - 130		6
2,2-Dichloropropane	25.0	27.1		ug/L		108	70 - 130		7
2-Butanone (MEK)	125	272	*	ug/L		218	70 - 130		8
2-Chlorotoluene	25.0	24.8		ug/L		99	70 - 130		9
2-Hexanone	125	142		ug/L		113	70 - 130		10
4-Chlorotoluene	25.0	25.3		ug/L		101	70 - 130		11
4-Isopropyltoluene	25.0	26.6		ug/L		106	70 - 130		12
4-Methyl-2-pentanone (MIBK)	125	134		ug/L		107	70 - 130		13
Acetone	125	179	*	ug/L		143	70 - 130		14
Benzene	25.0	27.4		ug/L		110	70 - 130		15
Bromobenzene	25.0	25.6		ug/L		102	70 - 130		1
Bromoform	25.0	26.6		ug/L		106	70 - 130		2
Bromomethane	25.0	30.6		ug/L		122	70 - 130		3
Carbon disulfide	25.0	28.3		ug/L		113	70 - 130		4
Carbon tetrachloride	25.0	29.4		ug/L		118	70 - 130		5
Chlorobenzene	25.0	25.2		ug/L		101	70 - 130		6
Chlorobromomethane	25.0	30.4		ug/L		122	70 - 130		7
Chlorodibromomethane	25.0	26.4		ug/L		106	70 - 130		8
Chloroethane	25.0	29.6		ug/L		118	70 - 130		9
Chloroform	25.0	27.4		ug/L		110	70 - 130		10
Chloromethane	25.0	23.5		ug/L		94	70 - 130		11
cis-1,2-Dichloroethene	25.0	28.4		ug/L		114	70 - 130		12
cis-1,3-Dichloropropene	25.0	27.3		ug/L		109	70 - 130		13
Dibromomethane	25.0	29.0		ug/L		116	70 - 130		14
Dichlorobromomethane	25.0	28.5		ug/L		114	70 - 130		15
Dichlorodifluoromethane	25.0	26.9		ug/L		108	70 - 130		1
Ethyl ether	25.0	28.2		ug/L		113	70 - 130		2
Ethylbenzene	25.0	25.5		ug/L		102	70 - 130		3
Ethylene Dibromide	25.0	26.4		ug/L		106	70 - 130		4
Hexachlorobutadiene	25.0	27.5		ug/L		110	70 - 130		5
Isopropyl ether	25.0	24.9		ug/L		100	70 - 130		6
Isopropylbenzene	25.0	24.8		ug/L		99	70 - 130		7
Methyl tert-butyl ether	25.0	27.9		ug/L		112	70 - 130		8

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-409598/5

Matrix: Water

Analysis Batch: 409598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Methylene Chloride	25.0	28.2		ug/L		113	70 - 130	
m-Xylene & p-Xylene	25.0	25.5		ug/L		102	70 - 130	
Naphthalene	25.0	26.7		ug/L		107	70 - 130	
n-Butylbenzene	25.0	26.1		ug/L		104	70 - 130	
N-Propylbenzene	25.0	24.9		ug/L		100	70 - 130	
o-Xylene	25.0	24.8		ug/L		99	70 - 130	
sec-Butylbenzene	25.0	25.6		ug/L		102	70 - 130	
Styrene	25.0	25.7		ug/L		103	70 - 130	
Tert-amyl methyl ether	25.0	28.6		ug/L		114	70 - 130	
Tert-butyl ethyl ether	25.0	27.0		ug/L		108	70 - 130	
tert-Butylbenzene	25.0	27.0		ug/L		108	70 - 130	
Tetrachloroethene	25.0	30.0		ug/L		120	70 - 130	
Tetrahydrofuran	50.0	73.4 *		ug/L		147	70 - 130	
Toluene	25.0	25.2		ug/L		101	70 - 130	
trans-1,2-Dichloroethene	25.0	27.5		ug/L		110	70 - 130	
trans-1,3-Dichloropropene	25.0	25.3		ug/L		101	70 - 130	
Trichloroethene	25.0	28.9		ug/L		116	70 - 130	
Trichlorofluoromethane	25.0	30.6		ug/L		122	70 - 130	
Vinyl chloride	25.0	26.4		ug/L		105	70 - 130	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	121		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130
Toluene-d8 (Surr)	97		70 - 130
Dibromofluoromethane (Surr)	111		70 - 130

Lab Sample ID: LCSD 480-409598/6

Matrix: Water

Analysis Batch: 409598

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	26.9		ug/L		108	70 - 130	3	20
1,1,1-Trichloroethane	25.0	27.8		ug/L		111	70 - 130	4	20
1,1,2,2-Tetrachloroethane	25.0	26.1		ug/L		104	70 - 130	4	20
1,1,2-Trichloroethane	25.0	27.4		ug/L		110	70 - 130	6	20
1,1-Dichloroethane	25.0	27.3		ug/L		109	70 - 130	3	20
1,1-Dichloroethene	25.0	27.1		ug/L		108	70 - 130	5	20
1,1-Dichloropropene	25.0	26.7		ug/L		107	70 - 130	5	20
1,2,3-Trichlorobenzene	25.0	25.4		ug/L		101	70 - 130	0	20
1,2,3-Trichloropropane	25.0	28.5		ug/L		114	70 - 130	1	20
1,2,4-Trichlorobenzene	25.0	25.0		ug/L		100	70 - 130	0	20
1,2,4-Trimethylbenzene	25.0	24.7		ug/L		99	70 - 130	1	20
1,2-Dibromo-3-Chloropropane	25.0	26.9		ug/L		108	70 - 130	7	20
1,2-Dichlorobenzene	25.0	26.1		ug/L		104	70 - 130	1	20
1,2-Dichloroethane	25.0	27.5		ug/L		110	70 - 130	5	20
1,2-Dichloropropane	25.0	26.3		ug/L		105	70 - 130	2	20
1,3,5-Trimethylbenzene	25.0	24.9		ug/L		100	70 - 130	1	20
1,3-Dichlorobenzene	25.0	26.6		ug/L		106	70 - 130	1	20

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-409598/6

Matrix: Water

Analysis Batch: 409598

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.		RPD	RPD Limit
	Added	Result	Qualifier				Limits	RPD		
1,3-Dichloropropane	25.0	26.4		ug/L		106	70 - 130	2	20	
1,4-Dichlorobenzene	25.0	26.0		ug/L		104	70 - 130	1	20	
1,4-Dioxane	500	659	*	ug/L		132	70 - 130	42	20	
2,2-Dichloropropane	25.0	25.9		ug/L		104	70 - 130	4	20	
2-Butanone (MEK)	125	258	*	ug/L		206	70 - 130	5	20	
2-Chlorotoluene	25.0	24.1		ug/L		97	70 - 130	3	20	
2-Hexanone	125	141		ug/L		113	70 - 130	1	20	
4-Chlorotoluene	25.0	24.6		ug/L		98	70 - 130	3	20	
4-Isopropyltoluene	25.0	26.3		ug/L		105	70 - 130	1	20	
4-Methyl-2-pentanone (MIBK)	125	137		ug/L		109	70 - 130	2	20	
Acetone	125	165	*	ug/L		132	70 - 130	8	20	
Benzene	25.0	26.5		ug/L		106	70 - 130	4	20	
Bromobenzene	25.0	25.7		ug/L		103	70 - 130	0	20	
Bromoform	25.0	25.4		ug/L		102	70 - 130	5	20	
Bromomethane	25.0	28.4		ug/L		114	70 - 130	7	20	
Carbon disulfide	25.0	26.0		ug/L		104	70 - 130	8	20	
Carbon tetrachloride	25.0	28.1		ug/L		112	70 - 130	5	20	
Chlorobenzene	25.0	25.5		ug/L		102	70 - 130	1	20	
Chlorobromomethane	25.0	29.0		ug/L		116	70 - 130	5	20	
Chlorodibromomethane	25.0	26.9		ug/L		107	70 - 130	2	20	
Chloroethane	25.0	28.7		ug/L		115	70 - 130	3	20	
Chloroform	25.0	26.2		ug/L		105	70 - 130	5	20	
Chloromethane	25.0	22.8		ug/L		91	70 - 130	3	20	
cis-1,2-Dichloroethene	25.0	26.9		ug/L		107	70 - 130	5	20	
cis-1,3-Dichloropropene	25.0	27.1		ug/L		109	70 - 130	0	20	
Dibromomethane	25.0	28.4		ug/L		113	70 - 130	2	20	
Dichlorobromomethane	25.0	26.7		ug/L		107	70 - 130	7	20	
Dichlorodifluoromethane	25.0	24.5		ug/L		98	70 - 130	9	20	
Ethyl ether	25.0	26.1		ug/L		104	70 - 130	8	20	
Ethylbenzene	25.0	25.4		ug/L		102	70 - 130	0	20	
Ethylene Dibromide	25.0	27.0		ug/L		108	70 - 130	2	20	
Hexachlorobutadiene	25.0	27.8		ug/L		111	70 - 130	1	20	
Isopropyl ether	25.0	24.1		ug/L		96	70 - 130	3	20	
Isopropylbenzene	25.0	24.9		ug/L		99	70 - 130	0	20	
Methyl tert-butyl ether	25.0	26.6		ug/L		106	70 - 130	5	20	
Methylene Chloride	25.0	26.3		ug/L		105	70 - 130	7	20	
m-Xylene & p-Xylene	25.0	25.9		ug/L		104	70 - 130	2	20	
Naphthalene	25.0	26.6		ug/L		106	70 - 130	0	20	
n-Butylbenzene	25.0	26.0		ug/L		104	70 - 130	0	20	
N-Propylbenzene	25.0	24.6		ug/L		98	70 - 130	1	20	
o-Xylene	25.0	25.8		ug/L		103	70 - 130	4	20	
sec-Butylbenzene	25.0	25.0		ug/L		100	70 - 130	2	20	
Styrene	25.0	26.4		ug/L		106	70 - 130	3	20	
Tert-amyl methyl ether	25.0	27.6		ug/L		110	70 - 130	4	20	
Tert-butyl ethyl ether	25.0	26.1		ug/L		104	70 - 130	3	20	
tert-Butylbenzene	25.0	26.3		ug/L		105	70 - 130	3	20	
Tetrachloroethene	25.0	30.4		ug/L		122	70 - 130	1	20	
Tetrahydrofuran	50.0	70.0	*	ug/L		140	70 - 130	5	20	

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-409598/6

Matrix: Water

Analysis Batch: 409598

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec.	RPD	Limit
	Added	Result	Qualifier			%Rec.		
Toluene	25.0	25.3		ug/L	101	70 - 130	0	20
trans-1,2-Dichloroethene	25.0	25.9		ug/L	104	70 - 130	6	20
trans-1,3-Dichloropropene	25.0	25.8		ug/L	103	70 - 130	2	20
Trichloroethene	25.0	27.5		ug/L	110	70 - 130	5	20
Trichlorofluoromethane	25.0	28.6		ug/L	114	70 - 130	7	20
Vinyl chloride	25.0	23.4		ug/L	94	70 - 130	12	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	111		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130
Toluene-d8 (Surr)	97		70 - 130
Dibromofluoromethane (Surr)	105		70 - 130

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-408643/1-A

Matrix: Water

Analysis Batch: 408998

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 408643

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed	Dil Fac
Chromium	ND		5.0	1.0	ug/L	04/13/18 09:17	04/13/18 16:13		1

Lab Sample ID: LCS 480-408643/2-A

Matrix: Water

Analysis Batch: 408998

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 408643

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec.	Limits
	Added	Result	Qualifier			%Rec.	
Chromium	200	210		ug/L	105	80 - 120	

Lab Sample ID: LCSD 480-408643/23-A

Matrix: Water

Analysis Batch: 408998

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 408643

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec.	RPD
	Added	Result	Qualifier			%Rec.	
Chromium	200	212		ug/L	106	80 - 120	1

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 480-408491/27

Matrix: Water

Analysis Batch: 408491

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L	04/12/18 08:02			1

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: MB 480-408491/3

Matrix: Water

Analysis Batch: 408491

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			04/12/18 08:02	1

Lab Sample ID: LCS 480-408491/28

Matrix: Water

Analysis Batch: 408491

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Chromium, hexavalent	0.200	0.201		mg/L		101	80 - 120

Lab Sample ID: LCS 480-408491/4

Matrix: Water

Analysis Batch: 408491

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Chromium, hexavalent	0.200	0.205		mg/L		102	80 - 120

Lab Sample ID: LCSD 480-408491/29

Matrix: Water

Analysis Batch: 408491

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	Limits	RPD	RPD Limit
Chromium, hexavalent	0.200	0.204		mg/L		102	80 - 120	1	20

Lab Sample ID: LCSD 480-408491/5

Matrix: Water

Analysis Batch: 408491

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	Limits	RPD	RPD Limit
Chromium, hexavalent	0.200	0.201		mg/L		101	80 - 120	2	20

Lab Sample ID: 480-133969-4 MS

Matrix: Water

Analysis Batch: 408491

Client Sample ID: C041118-CLW22
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Chromium, hexavalent	0.0063	J	0.200	0.207		mg/L		100	75 - 125

Lab Sample ID: 480-133969-2 DU

Matrix: Water

Analysis Batch: 408491

Client Sample ID: C041118-OSW4I
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium, hexavalent	0.077		0.0795		mg/L		3	20

Lab Sample ID: 480-133969-6 DU

Matrix: Water

Analysis Batch: 408491

Client Sample ID: C041118-CLW17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium, hexavalent	0.037		0.0382		mg/L		3	20

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

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QC Association Summary

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

GC/MS VOA

Analysis Batch: 409387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133969-1	C041118-CIW1B	Total/NA	Water	8260C	1
480-133969-2	C041118-OSW4I	Total/NA	Water	8260C	2
480-133969-4	C041118-CLW22	Total/NA	Water	8260C	3
480-133969-5	C041118-CLW22B	Total/NA	Water	8260C	4
480-133969-6	C041118-CLW17	Total/NA	Water	8260C	5
480-133969-7	C041118-CLW17B	Total/NA	Water	8260C	6
MB 480-409387/8	Method Blank	Total/NA	Water	8260C	7
LCS 480-409387/5	Lab Control Sample	Total/NA	Water	8260C	8
LCSD 480-409387/6	Lab Control Sample Dup	Total/NA	Water	8260C	9

Analysis Batch: 409598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133969-3	C041118-PP2	Total/NA	Water	8260C	10
MB 480-409598/8	Method Blank	Total/NA	Water	8260C	11
LCS 480-409598/5	Lab Control Sample	Total/NA	Water	8260C	12
LCSD 480-409598/6	Lab Control Sample Dup	Total/NA	Water	8260C	13

Metals

Prep Batch: 408643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133969-1	C041118-CIW1B	Total/NA	Water	3005A	14
480-133969-2	C041118-OSW4I	Total/NA	Water	3005A	15
480-133969-3	C041118-PP2	Total/NA	Water	3005A	
480-133969-4	C041118-CLW22	Total/NA	Water	3005A	
480-133969-5	C041118-CLW22B	Total/NA	Water	3005A	
480-133969-6	C041118-CLW17	Total/NA	Water	3005A	
480-133969-7	C041118-CLW17B	Total/NA	Water	3005A	
MB 480-408643/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-408643/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-408643/23-A	Lab Control Sample Dup	Total/NA	Water	3005A	

Analysis Batch: 408998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133969-1	C041118-CIW1B	Total/NA	Water	6010	408643
480-133969-2	C041118-OSW4I	Total/NA	Water	6010	408643
480-133969-3	C041118-PP2	Total/NA	Water	6010	408643
480-133969-4	C041118-CLW22	Total/NA	Water	6010	408643
480-133969-5	C041118-CLW22B	Total/NA	Water	6010	408643
480-133969-6	C041118-CLW17	Total/NA	Water	6010	408643
480-133969-7	C041118-CLW17B	Total/NA	Water	6010	408643
MB 480-408643/1-A	Method Blank	Total/NA	Water	6010	408643
LCS 480-408643/2-A	Lab Control Sample	Total/NA	Water	6010	408643
LCSD 480-408643/23-A	Lab Control Sample Dup	Total/NA	Water	6010	408643

General Chemistry

Analysis Batch: 408491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133969-1	C041118-CIW1B	Total/NA	Water	7196A	

TestAmerica Buffalo

QC Association Summary

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

General Chemistry (Continued)

Analysis Batch: 408491 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-133969-2	C041118-OSW4I	Total/NA	Water	7196A	1
480-133969-3	C041118-PP2	Total/NA	Water	7196A	2
480-133969-4	C041118-CLW22	Total/NA	Water	7196A	3
480-133969-5	C041118-CLW22B	Total/NA	Water	7196A	4
480-133969-6	C041118-CLW17	Total/NA	Water	7196A	5
480-133969-7	C041118-CLW17B	Total/NA	Water	7196A	6
MB 480-408491/27	Method Blank	Total/NA	Water	7196A	7
MB 480-408491/3	Method Blank	Total/NA	Water	7196A	8
LCS 480-408491/28	Lab Control Sample	Total/NA	Water	7196A	9
LCS 480-408491/4	Lab Control Sample	Total/NA	Water	7196A	10
LCSD 480-408491/29	Lab Control Sample Dup	Total/NA	Water	7196A	11
LCSD 480-408491/5	Lab Control Sample Dup	Total/NA	Water	7196A	12
480-133969-4 MS	C041118-CLW22	Total/NA	Water	7196A	13
480-133969-2 DU	C041118-OSW4I	Total/NA	Water	7196A	14
480-133969-6 DU	C041118-CLW17	Total/NA	Water	7196A	15

Lab Chronicle

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-CIW1B

Date Collected: 04/11/18 09:55

Date Received: 04/12/18 01:00

Lab Sample ID: 480-133969-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	409387	04/18/18 13:12	GSR	TAL BUF
Total/NA	Prep	3005A			408643	04/13/18 09:17	JAK	TAL BUF
Total/NA	Analysis	6010		1	408998	04/13/18 16:56	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408491	04/12/18 08:02	BEV	TAL BUF

Client Sample ID: C041118-OSW4I

Date Collected: 04/11/18 12:25

Date Received: 04/12/18 01:00

Lab Sample ID: 480-133969-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		8	409387	04/18/18 13:36	GSR	TAL BUF
Total/NA	Prep	3005A			408643	04/13/18 09:17	JAK	TAL BUF
Total/NA	Analysis	6010		1	408998	04/13/18 17:00	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408491	04/12/18 08:02	BEV	TAL BUF

Client Sample ID: C041118-PP2

Date Collected: 04/11/18 15:00

Date Received: 04/12/18 01:00

Lab Sample ID: 480-133969-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	409598	04/18/18 23:41	RRS	TAL BUF
Total/NA	Prep	3005A			408643	04/13/18 09:17	JAK	TAL BUF
Total/NA	Analysis	6010		1	408998	04/13/18 17:04	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408491	04/12/18 08:02	BEV	TAL BUF

Client Sample ID: C041118-CLW22

Date Collected: 04/11/18 09:40

Date Received: 04/12/18 01:00

Lab Sample ID: 480-133969-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	409387	04/18/18 14:23	GSR	TAL BUF
Total/NA	Prep	3005A			408643	04/13/18 09:17	JAK	TAL BUF
Total/NA	Analysis	6010		1	408998	04/13/18 17:07	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408491	04/12/18 08:02	BEV	TAL BUF

Client Sample ID: C041118-CLW22B

Date Collected: 04/11/18 10:45

Date Received: 04/12/18 01:00

Lab Sample ID: 480-133969-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	409387	04/18/18 14:47	GSR	TAL BUF
Total/NA	Prep	3005A			408643	04/13/18 09:17	JAK	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Client Sample ID: C041118-CLW22B

Date Collected: 04/11/18 10:45

Date Received: 04/12/18 01:00

Lab Sample ID: 480-133969-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010		1	408998	04/13/18 17:11	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408491	04/12/18 08:02	BEV	TAL BUF

Client Sample ID: C041118-CLW17

Date Collected: 04/11/18 13:00

Date Received: 04/12/18 01:00

Lab Sample ID: 480-133969-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	409387	04/18/18 15:11	GSR	TAL BUF
Total/NA	Prep	3005A			408643	04/13/18 09:17	JAK	TAL BUF
Total/NA	Analysis	6010		1	408998	04/13/18 17:14	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408491	04/12/18 08:02	BEV	TAL BUF

Client Sample ID: C041118-CLW17B

Date Collected: 04/11/18 15:20

Date Received: 04/12/18 01:00

Lab Sample ID: 480-133969-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	409387	04/18/18 15:34	GSR	TAL BUF
Total/NA	Prep	3005A			408643	04/13/18 09:17	JAK	TAL BUF
Total/NA	Analysis	6010		1	408998	04/13/18 17:18	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408491	04/12/18 08:02	BEV	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TestAmerica Buffalo

Accreditation/Certification Summary

Client: Honeywell International Inc

Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Massachusetts	State Program	1	M-NY044	06-30-18
The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:				
Analysis Method	Prep Method	Matrix	Analyte	
6010	3005A	Water	Chromium	
7196A		Water	Chromium, hexavalent	
8260C		Water	1,1,1,2-Tetrachloroethane	
8260C		Water	1,1,1-Trichloroethane	
8260C		Water	1,1,2,2-Tetrachloroethane	
8260C		Water	1,1,2-Trichloroethane	
8260C		Water	1,1-Dichloroethane	
8260C		Water	1,1-Dichloroethene	
8260C		Water	1,1-Dichloropropene	
8260C		Water	1,2,3-Trichlorobenzene	
8260C		Water	1,2,3-Trichloropropane	
8260C		Water	1,2,4-Trichlorobenzene	
8260C		Water	1,2,4-Trimethylbenzene	
8260C		Water	1,2-Dibromo-3-Chloropropane	
8260C		Water	1,2-Dichlorobenzene	
8260C		Water	1,2-Dichloroethane	
8260C		Water	1,2-Dichloropropane	
8260C		Water	1,3,5-Trimethylbenzene	
8260C		Water	1,3-Dichlorobenzene	
8260C		Water	1,3-Dichloropropane	
8260C		Water	1,4-Dichlorobenzene	
8260C		Water	1,4-Dioxane	
8260C		Water	2,2-Dichloropropane	
8260C		Water	2-Butanone (MEK)	
8260C		Water	2-Chlorotoluene	
8260C		Water	2-Hexanone	
8260C		Water	4-Chlorotoluene	
8260C		Water	4-Isopropyltoluene	
8260C		Water	4-Methyl-2-pentanone (MIBK)	
8260C		Water	Acetone	
8260C		Water	Benzene	
8260C		Water	Bromobenzene	
8260C		Water	Bromoform	
8260C		Water	Bromomethane	
8260C		Water	Carbon disulfide	
8260C		Water	Carbon tetrachloride	
8260C		Water	Chlorobenzene	
8260C		Water	Chlorobromomethane	
8260C		Water	Chlorodibromomethane	
8260C		Water	Chloroethane	
8260C		Water	Chloroform	
8260C		Water	Chloromethane	
8260C		Water	cis-1,2-Dichloroethene	
8260C		Water	cis-1,3-Dichloropropene	
8260C		Water	Dibromomethane	
8260C		Water	Dichlorobromomethane	

Accreditation/Certification Summary

Client: Honeywell International Inc

Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Laboratory: TestAmerica Buffalo (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Massachusetts	State Program	1	M-NY044	06-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	Dichlorodifluoromethane
8260C		Water	Ethyl ether
8260C		Water	Ethylbenzene
8260C		Water	Ethylene Dibromide
8260C		Water	Hexachlorobutadiene
8260C		Water	Isopropyl ether
8260C		Water	Isopropylbenzene
8260C		Water	Methyl tert-butyl ether
8260C		Water	Methylene Chloride
8260C		Water	m-Xylene & p-Xylene
8260C		Water	Naphthalene
8260C		Water	n-Butylbenzene
8260C		Water	N-Propylbenzene
8260C		Water	o-Xylene
8260C		Water	sec-Butylbenzene
8260C		Water	Styrene
8260C		Water	Tert-amyl methyl ether
8260C		Water	Tert-butyl ethyl ether
8260C		Water	tert-Butylbenzene
8260C		Water	Tetrachloroethene
8260C		Water	Tetrahydrofuran
8260C		Water	Toluene
8260C		Water	trans-1,2-Dichloroethene
8260C		Water	trans-1,3-Dichloropropene
8260C		Water	Trichloroethene
8260C		Water	Trichlorofluoromethane
8260C		Water	Vinyl chloride

Method Summary

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
6010	Metals (ICP)	SW846	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

MA DEP = Massachusetts Department Of Environmental Protection

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Honeywell International Inc
Project/Site: April 2018 Semi Annual

TestAmerica Job ID: 480-133969-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-133969-1	C041118-CIW1B	Water	04/11/18 09:55	04/12/18 01:00
480-133969-2	C041118-OSW4I	Water	04/11/18 12:25	04/12/18 01:00
480-133969-3	C041118-PP2	Water	04/11/18 15:00	04/12/18 01:00
480-133969-4	C041118-CLW22	Water	04/11/18 09:40	04/12/18 01:00
480-133969-5	C041118-CLW22B	Water	04/11/18 10:45	04/12/18 01:00
480-133969-6	C041118-CLW17	Water	04/11/18 13:00	04/12/18 01:00
480-133969-7	C041118-CLW17B	Water	04/11/18 15:20	04/12/18 01:00

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TestAmerica Buffalo

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228

Tel 716.504.9838 | Fax 716.691.7991; Contact: JOHN SCHOVE

Honeywell**Chain Of Custody / Analysis Request**

Privileged & Confidential		N	Site Name: <i>Arc-12c/E Screen</i>	
EDID To:		Mark.Maggiore @amec.com	Location of Site: Groton, Massachusetts	
Sampler: <i>Anne Foster Wheeler</i>		Preservative		
P.O. #			1	0
Analysis Turnaround Time: Standard - Rush Charges: Authorized for - 2 weeks		10 Y		
Hardcopy Report To: <i>Chris Ricardi (Amec) 207.775.5401</i>		N		
Invoice To: <i>Honeywell International, Inc.</i>		N		
Sample Identification		Sample Date	Sample Time	Sample Type
Start Depth (ft)	End Depth (ft)	Field Sample ID		
C1w-13	CC41115-C1w,13	9/11/18 0955	under-	Unr Reg
0Sw-4L	CC-1118-05w,4L	9/11/18 1225	under-	Unr Reg
P8-2	CC41116-P82	9/11/18 1500	water	Unr Reg
C1w-22	CC41115-CCw22	9/11/18 940	water	Unr Reg
C1w-22B	CC41115-CCw23	9/11/18 1045	water	Unr Reg
C1w-17	CC41115-C1w17	9/11/18 1300	water	Unr Reg
C1w-17B	CC41115-CCw13	9/11/18 1520	water	Unr Reg
Lab Sample Numbers				
Location ID	Depth (ft)	Field Sample ID	Units	
C1w-13	CC41115-C1w,13	9/11/18 0955	mg/L	
0Sw-4L	CC-1118-05w,4L	9/11/18 1225	mg/L	
P8-2	CC41116-P82	9/11/18 1500	mg/L	
C1w-22	CC41115-CCw22	9/11/18 940	mg/L	
C1w-22B	CC41115-CCw23	9/11/18 1045	mg/L	
C1w-17	CC41115-C1w17	9/11/18 1300	mg/L	
C1w-17B	CC41115-CCw13	9/11/18 1520	mg/L	
Preservatives				
1	2	3	4	5
SW846/6010B Total Chromium	7196A Hexavalent Chromium	SW846/8260B Volatile Organic Compounds	Field Composite Sample?	GRab/Composite
Compounds	Hexavalent Chromium	Volatile Organic	Yes	No
What is in the Test File? Mouse over here.				
Written and maintained by AFSI (Ver 3.7) 02-01-05 rsmeagle@aol.com				

Special Instructions: MCP Protocol, GW-I Detection Limits, MCP QA/QC Report, - LOWEST R.L POSSIBLE
 SW846/8260B Volatile Organic Compounds, 7196A Hexavalent Chromium, SW846/6010B Total Chromium, Enclosed Trip Blank Sampled by Lab.

Relinquished by:	Company	Received by	Company	Condition	Custody Seals intact
<i>Jerry</i>	Date/Time	<i>Anne F-W</i> 9/11 1540	<i>Jerry Doh</i> 9/11 1540	10/10	Cooler Temp.
Retained by:	Company	Received by	Company	Condition	Custody Seals intact
<i>Jerry</i>	Date/Time	<i>John Doh</i> 9/11 1740	<i>John Doh</i> 9/11 1740	0/9°C #4	Cooler Temp.

Preservatives: 0 = None; 1 = HCl; 2 = HNO3; 3 = H2SO4; 4 = NaOH; 5 = Zn, Acetate; 6 = MeOH; 17 = NaHSO4; 8 = Other (specify):

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 480-133969-1

Login Number: 133969

List Source: TestAmerica Buffalo

List Number: 1

Creator: Kinecki, Kenneth P

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AMEC FW
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-134067-1

Client Project/Site: Honeywell Conductor lab

For:

Honeywell International Inc

Remediation & Evaluation Services

115 Tabor Road

Morris Plains, New Jersey 07950

Attn: Ms. Maria Kaouris



Authorized for release by:

4/23/2018 3:27:33 PM

Rebecca Jones, Project Management Assistant I

rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II

(716)504-9838

john.schove@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

%	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Job ID: 480-134067-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-134067-1

Comments

No additional comments.

Receipt

The samples were received on 4/13/2018 1:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.9° C.

GC/MS VOA

Method(s) 8260C: With the exception of diluted samples, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for Carbon disulfide, Isopropyl ether, Naphthalene, tert-Butyl ethyl ether, tert-Amyl methyl Ether, & Tetrahydrofuran

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-410081 recovered outside the MCP control limit criteria for the following analyte: Acetone. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. Difficult analytes are allowed to be outside the 20% difference but not over 60% difference. The following samples were affected : C041218-PP3 (480-134067-1), C041218-PP4B (480-134067-3), C041218-OSW3A (480-134067-6), C041218-OSW2B (480-134067-7) and C041218-Trip Blank (480-134067-9).

Method(s) 8260C: The laboratory control sample (LCS) and or the laboratory control sample duplicate (LCSD) for batch 480-410081 exceeded control limits for the following analyte: 2-Butanone and Tetrahydrofuran. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate and Methacrylonitrile in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following samples were affected : C041218-PP3 (480-134067-1), C041218-PP4B (480-134067-3), C041218-OSW3A (480-134067-6), C041218-OSW2B (480-134067-7) and C041218-Trip Blank (480-134067-9).

Method(s) 8260C: The laboratory control sample (LCS) and/or the laboratory control sample duplicate (LCSD) for batch 480-410081 exceeded control limits for the following analytes: 1,4-Dioxane and Acetone. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following samples were affected : C041218-PP3 (480-134067-1), C041218-PP4B (480-134067-3), C041218-OSW3A (480-134067-6), C041218-OSW2B (480-134067-7) and C041218-Trip Blank (480-134067-9).

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: C041218-PP3 (480-134067-1), C041218-PP4B (480-134067-3) and C041218-OSW2B (480-134067-7). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch analytical batch 480-410081 recovered outside control limits for the following analytes: 1,4-Dioxane.

Method(s) 8260C: The continuing calibration verification (CCV) for Acetone associated with batch 480-410111 recovered outside the MCP control limit criteria. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. Difficult analytes are allowed to be outside the 20% difference but not over 60% difference. The following samples were affected : C041218-PP4A (480-134067-2), C041218-OSW3B (480-134067-4), C041218-CLW16B (480-134067-5) and C041218-CLW16BDUP (480-134067-8).

Method(s) 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-410111 exceeded control limits for the following analytes: 2-Butanone and Tetrahydrofuran. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate and Methacrylonitrile in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following samples were affected : C041218-PP4A (480-134067-2), C041218-OSW3B (480-134067-4), C041218-CLW16B (480-134067-5) and C041218-CLW16BDUP (480-134067-8).

Case Narrative

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Job ID: 480-134067-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method(s) 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-410111 exceeded control limits for the following analytes: 1,4-Dioxane and Acetone. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following samples were affected : C041218-PP4A (480-134067-2), C041218-OSW3B (480-134067-4), C041218-CLW16B (480-134067-5) and C041218-CLW16BDUP (480-134067-8).

Method(s) 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch analytical batch 480-410111 recovered outside control limits for the following analyte: 1,4-Dioxane.

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: C041218-OSW3B (480-134067-4), C041218-CLW16B (480-134067-5) and C041218-CLW16BDUP (480-134067-8). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010: At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Method(s) 7196A: The following samples were diluted to bring the concentration of target analytes within the calibration range: C041218-PP3 (480-134067-1) and (480-134067-B-1 DU). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

MassDEP Analytical Protocol Certification Form

Laboratory Name:	TestAmerica Buffalo		Project #:	480-134067-1	
Project Location:	Groton		RTN:		
This form provides certifications for the following data set: list Laboratory Sample ID Number(s):					
480-134067-1(1-9)					
Matrices:	<input checked="" type="checkbox"/> Groundwater/Surface Water	<input type="checkbox"/> Soil/Sediment	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> Air	<input type="checkbox"/> Other:
CAM Protocols (check all that apply below):					
8260 VOC CAM II A <input checked="" type="checkbox"/>	7470/7471 Hg CAM III B	Mass DEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input checked="" type="checkbox"/>	Mass DEP APH CAM IX A <input type="checkbox"/>
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	Mass DEP EPH CAM IV B <input type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>
6010 Metals CAM III A <input checked="" type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9014 Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>	
Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status					
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
E	a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?				<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Responses to Questions G, H and I below are required for "Presumptive Certainty" status					
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ¹
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350					
H	Were all QC performance standards specified in the CAM protocol(s) achieved?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ¹
¹ All negative responses must be addressed in an attached laboratory narrative.					
I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.					
Signature:			Position:	Project Management Assistant	
Printed Name:	Rebecca Jones		Date:	4/23/18 15:25	

Detection Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-PP3

Lab Sample ID: 480-134067-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	25	J *	250	15	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	24		5.0	4.1	ug/L	5		8260C	Total/NA
Trichloroethene	260		5.0	2.3	ug/L	5		8260C	Total/NA
Chromium	590		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, hexavalent	0.55		0.025	0.013	mg/L	2.5		7196A	Total/NA

Client Sample ID: C041218-PP4A

Lab Sample ID: 480-134067-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	11	J *	50	3.0	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	4.5		1.0	0.81	ug/L	1		8260C	Total/NA
Methylene Chloride	0.44	J	1.0	0.44	ug/L	1		8260C	Total/NA
Trichloroethene	47		1.0	0.46	ug/L	1		8260C	Total/NA
Chromium	32		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, hexavalent	0.032		0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: C041218-PP4B

Lab Sample ID: 480-134067-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	360		20	16	ug/L	20		8260C	Total/NA
Trichloroethene	440		20	9.2	ug/L	20		8260C	Total/NA
Chromium	25		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, hexavalent	0.018		0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: C041218-OSW3B

Lab Sample ID: 480-134067-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	18	J *	200	12	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene	120		4.0	3.2	ug/L	4		8260C	Total/NA
Methylene Chloride	2.4	J	4.0	1.8	ug/L	4		8260C	Total/NA
Trichloroethene	160		4.0	1.8	ug/L	4		8260C	Total/NA

Client Sample ID: C041218-CLW16B

Lab Sample ID: 480-134067-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1800		130	100	ug/L	125		8260C	Total/NA
Methylene Chloride	71	J	130	55	ug/L	125		8260C	Total/NA
trans-1,2-Dichloroethene	270		130	110	ug/L	125		8260C	Total/NA
Trichloroethene	6700		130	58	ug/L	125		8260C	Total/NA
Vinyl chloride	590		130	110	ug/L	125		8260C	Total/NA
Chromium	18		5.0	1.0	ug/L	1		6010	Total/NA

Client Sample ID: C041218-OSW3A

Lab Sample ID: 480-134067-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.9	J *	50	3.0	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.7		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	32		1.0	0.46	ug/L	1		8260C	Total/NA
Chromium	16		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, hexavalent	0.016		0.010	0.0050	mg/L	1		7196A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-OSW2B

Lab Sample ID: 480-134067-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	110		40	32	ug/L	40		8260C	Total/NA
trans-1,2-Dichloroethene	43		40	36	ug/L	40		8260C	Total/NA
Trichloroethene	1800		40	18	ug/L	40		8260C	Total/NA
Chromium	700		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, hexavalent	0.17		0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: C041218-CLW16BDUP

Lab Sample ID: 480-134067-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1800		130	100	ug/L	125		8260C	Total/NA
Methylene Chloride	82	J	130	55	ug/L	125		8260C	Total/NA
trans-1,2-Dichloroethene	240		130	110	ug/L	125		8260C	Total/NA
Trichloroethene	6800		130	58	ug/L	125		8260C	Total/NA
Vinyl chloride	540		130	110	ug/L	125		8260C	Total/NA
Chromium	19		5.0	1.0	ug/L	1		6010	Total/NA

Client Sample ID: C041218-Trip Blank

Lab Sample ID: 480-134067-9

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-PP3

Date Collected: 04/12/18 11:00

Date Received: 04/13/18 01:15

Lab Sample ID: 480-134067-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	1.8	ug/L			04/21/18 00:07	5
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			04/21/18 00:07	5
1,1,2,2-Tetrachloroethane	ND		2.5	1.1	ug/L			04/21/18 00:07	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			04/21/18 00:07	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			04/21/18 00:07	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			04/21/18 00:07	5
1,1-Dichloropropene	ND		5.0	3.6	ug/L			04/21/18 00:07	5
1,2,3-Trichlorobenzene	ND		5.0	2.1	ug/L			04/21/18 00:07	5
1,2,3-Trichloropropane	ND		5.0	4.5	ug/L			04/21/18 00:07	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			04/21/18 00:07	5
1,2,4-Trimethylbenzene	ND		5.0	3.8	ug/L			04/21/18 00:07	5
1,2-Dibromo-3-Chloropropane	ND		25	2.0	ug/L			04/21/18 00:07	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			04/21/18 00:07	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			04/21/18 00:07	5
1,2-Dichloropropene	ND		5.0	3.6	ug/L			04/21/18 00:07	5
1,3,5-Trimethylbenzene	ND		5.0	3.9	ug/L			04/21/18 00:07	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			04/21/18 00:07	5
1,3-Dichloropropene	ND		5.0	3.8	ug/L			04/21/18 00:07	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			04/21/18 00:07	5
1,4-Dioxane	ND *		250	47	ug/L			04/21/18 00:07	5
2,2-Dichloropropene	ND		5.0	2.0	ug/L			04/21/18 00:07	5
2-Butanone (MEK)	ND *		50	6.6	ug/L			04/21/18 00:07	5
2-Chlorotoluene	ND		5.0	4.3	ug/L			04/21/18 00:07	5
2-Hexanone	ND		50	6.2	ug/L			04/21/18 00:07	5
4-Chlorotoluene	ND		5.0	4.2	ug/L			04/21/18 00:07	5
4-Isopropyltoluene	ND		5.0	1.6	ug/L			04/21/18 00:07	5
4-Methyl-2-pentanone (MIBK)	ND		50	11	ug/L			04/21/18 00:07	5
Acetone	25 J *		250	15	ug/L			04/21/18 00:07	5
Benzene	ND		5.0	2.1	ug/L			04/21/18 00:07	5
Bromobenzene	ND		5.0	4.0	ug/L			04/21/18 00:07	5
Bromoform	ND		5.0	1.3	ug/L			04/21/18 00:07	5
Bromomethane	ND		10	3.5	ug/L			04/21/18 00:07	5
Carbon disulfide	ND		50	0.95	ug/L			04/21/18 00:07	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			04/21/18 00:07	5
Chlorobenzene	ND		5.0	3.8	ug/L			04/21/18 00:07	5
Chlorobromomethane	ND		5.0	4.4	ug/L			04/21/18 00:07	5
Chlorodibromomethane	ND		2.5	1.6	ug/L			04/21/18 00:07	5
Chloroethane	ND		10	1.6	ug/L			04/21/18 00:07	5
Chloroform	ND		5.0	1.7	ug/L			04/21/18 00:07	5
Chloromethane	ND		10	1.8	ug/L			04/21/18 00:07	5
cis-1,2-Dichloroethene	24		5.0	4.1	ug/L			04/21/18 00:07	5
cis-1,3-Dichloropropene	ND		2.0	1.8	ug/L			04/21/18 00:07	5
Dibromomethane	ND		5.0	2.1	ug/L			04/21/18 00:07	5
Dichlorobromomethane	ND		2.5	2.0	ug/L			04/21/18 00:07	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			04/21/18 00:07	5
Ethyl ether	ND		5.0	3.6	ug/L			04/21/18 00:07	5
Ethylbenzene	ND		5.0	3.7	ug/L			04/21/18 00:07	5
Ethylene Dibromide	ND		5.0	3.7	ug/L			04/21/18 00:07	5
Hexachlorobutadiene	ND		2.0	1.4	ug/L			04/21/18 00:07	5

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-PP3

Lab Sample ID: 480-134067-1

Matrix: Water

Date Collected: 04/12/18 11:00

Date Received: 04/13/18 01:15

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		50	3.0	ug/L			04/21/18 00:07	5
Isopropylbenzene	ND		5.0	4.0	ug/L			04/21/18 00:07	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			04/21/18 00:07	5
Methylene Chloride	ND		5.0	2.2	ug/L			04/21/18 00:07	5
m-Xylene & p-Xylene	ND		10	3.3	ug/L			04/21/18 00:07	5
Naphthalene	ND		25	2.2	ug/L			04/21/18 00:07	5
n-Butylbenzene	ND		5.0	3.2	ug/L			04/21/18 00:07	5
N-Propylbenzene	ND		5.0	3.5	ug/L			04/21/18 00:07	5
o-Xylene	ND		5.0	3.8	ug/L			04/21/18 00:07	5
sec-Butylbenzene	ND		5.0	3.8	ug/L			04/21/18 00:07	5
Styrene	ND		5.0	3.7	ug/L			04/21/18 00:07	5
Tert-amyl methyl ether	ND		25	1.4	ug/L			04/21/18 00:07	5
Tert-butyl ethyl ether	ND		25	1.5	ug/L			04/21/18 00:07	5
tert-Butylbenzene	ND		5.0	4.1	ug/L			04/21/18 00:07	5
Tetrachloroethene	ND		5.0	1.8	ug/L			04/21/18 00:07	5
Tetrahydrofuran	ND *		50	6.3	ug/L			04/21/18 00:07	5
Toluene	ND		5.0	2.6	ug/L			04/21/18 00:07	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			04/21/18 00:07	5
trans-1,3-Dichloropropene	ND		2.0	1.9	ug/L			04/21/18 00:07	5
Trichloroethene	260		5.0	2.3	ug/L			04/21/18 00:07	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			04/21/18 00:07	5
Vinyl chloride	ND		5.0	4.5	ug/L			04/21/18 00:07	5
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110			70 - 130				04/21/18 00:07	5
4-Bromofluorobenzene (Surr)	96			70 - 130				04/21/18 00:07	5
Toluene-d8 (Surr)	96			70 - 130				04/21/18 00:07	5
Dibromofluoromethane (Surr)	105			70 - 130				04/21/18 00:07	5

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	590		5.0	1.0	ug/L		04/14/18 09:34	04/16/18 17:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.55		0.025	0.013	mg/L			04/13/18 06:39	2.5

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-PP4A

Lab Sample ID: 480-134067-2

Matrix: Water

Date Collected: 04/12/18 12:05

Date Received: 04/13/18 01:15

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/21/18 14:07	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/21/18 14:07	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/21/18 14:07	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/21/18 14:07	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/21/18 14:07	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/21/18 14:07	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/21/18 14:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/21/18 14:07	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/21/18 14:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/21/18 14:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/21/18 14:07	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/21/18 14:07	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/21/18 14:07	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/21/18 14:07	1
1,2-Dichloropropene	ND		1.0	0.72	ug/L			04/21/18 14:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/21/18 14:07	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/21/18 14:07	1
1,3-Dichloropropene	ND		1.0	0.75	ug/L			04/21/18 14:07	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/21/18 14:07	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/21/18 14:07	1
2,2-Dichloropropene	ND		1.0	0.40	ug/L			04/21/18 14:07	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/21/18 14:07	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/21/18 14:07	1
2-Hexanone	ND		10	1.2	ug/L			04/21/18 14:07	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/21/18 14:07	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/21/18 14:07	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/21/18 14:07	1
Acetone	11 J*		50	3.0	ug/L			04/21/18 14:07	1
Benzene	ND		1.0	0.41	ug/L			04/21/18 14:07	1
Bromobenzene	ND		1.0	0.80	ug/L			04/21/18 14:07	1
Bromoform	ND		1.0	0.26	ug/L			04/21/18 14:07	1
Bromomethane	ND		2.0	0.69	ug/L			04/21/18 14:07	1
Carbon disulfide	ND		10	0.19	ug/L			04/21/18 14:07	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/21/18 14:07	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/21/18 14:07	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/21/18 14:07	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/21/18 14:07	1
Chloroethane	ND		2.0	0.32	ug/L			04/21/18 14:07	1
Chloroform	ND		1.0	0.34	ug/L			04/21/18 14:07	1
Chloromethane	ND		2.0	0.35	ug/L			04/21/18 14:07	1
cis-1,2-Dichloroethene	4.5		1.0	0.81	ug/L			04/21/18 14:07	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/21/18 14:07	1
Dibromomethane	ND		1.0	0.41	ug/L			04/21/18 14:07	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/21/18 14:07	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/21/18 14:07	1
Ethyl ether	ND		1.0	0.72	ug/L			04/21/18 14:07	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/21/18 14:07	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/21/18 14:07	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/21/18 14:07	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-PP4A

Lab Sample ID: 480-134067-2

Matrix: Water

Date Collected: 04/12/18 12:05

Date Received: 04/13/18 01:15

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/21/18 14:07	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/21/18 14:07	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/21/18 14:07	1
Methylene Chloride	0.44	J	1.0	0.44	ug/L			04/21/18 14:07	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/21/18 14:07	1
Naphthalene	ND		5.0	0.43	ug/L			04/21/18 14:07	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/21/18 14:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/21/18 14:07	1
o-Xylene	ND		1.0	0.76	ug/L			04/21/18 14:07	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/21/18 14:07	1
Styrene	ND		1.0	0.73	ug/L			04/21/18 14:07	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/21/18 14:07	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/21/18 14:07	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/21/18 14:07	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/21/18 14:07	1
Tetrahydrofuran	ND *		10	1.3	ug/L			04/21/18 14:07	1
Toluene	ND		1.0	0.51	ug/L			04/21/18 14:07	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/21/18 14:07	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/21/18 14:07	1
Trichloroethene	47		1.0	0.46	ug/L			04/21/18 14:07	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/21/18 14:07	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/21/18 14:07	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110			70 - 130				04/21/18 14:07	1
4-Bromofluorobenzene (Surr)	93			70 - 130				04/21/18 14:07	1
Toluene-d8 (Surr)	92			70 - 130				04/21/18 14:07	1
Dibromofluoromethane (Surr)	105			70 - 130				04/21/18 14:07	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	32		5.0	1.0	ug/L		04/14/18 09:34	04/16/18 17:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.032		0.010	0.0050	mg/L			04/13/18 06:39	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
 Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-PP4B

Lab Sample ID: 480-134067-3

Matrix: Water

Date Collected: 04/12/18 13:50

Date Received: 04/13/18 01:15

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		20	7.0	ug/L			04/21/18 02:52	20
1,1,1-Trichloroethane	ND		20	16	ug/L			04/21/18 02:52	20
1,1,2,2-Tetrachloroethane	ND		10	4.2	ug/L			04/21/18 02:52	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			04/21/18 02:52	20
1,1-Dichloroethane	ND		20	7.6	ug/L			04/21/18 02:52	20
1,1-Dichloroethene	ND		20	5.8	ug/L			04/21/18 02:52	20
1,1-Dichloropropene	ND		20	14	ug/L			04/21/18 02:52	20
1,2,3-Trichlorobenzene	ND		20	8.2	ug/L			04/21/18 02:52	20
1,2,3-Trichloropropane	ND		20	18	ug/L			04/21/18 02:52	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			04/21/18 02:52	20
1,2,4-Trimethylbenzene	ND		20	15	ug/L			04/21/18 02:52	20
1,2-Dibromo-3-Chloropropane	ND		100	7.8	ug/L			04/21/18 02:52	20
1,2-Dichlorobenzene	ND		20	16	ug/L			04/21/18 02:52	20
1,2-Dichloroethane	ND		20	4.2	ug/L			04/21/18 02:52	20
1,2-Dichloropropene	ND		20	14	ug/L			04/21/18 02:52	20
1,3,5-Trimethylbenzene	ND		20	15	ug/L			04/21/18 02:52	20
1,3-Dichlorobenzene	ND		20	16	ug/L			04/21/18 02:52	20
1,3-Dichloropropene	ND		20	15	ug/L			04/21/18 02:52	20
1,4-Dichlorobenzene	ND		20	17	ug/L			04/21/18 02:52	20
1,4-Dioxane	ND *		1000	190	ug/L			04/21/18 02:52	20
2,2-Dichloropropene	ND		20	8.0	ug/L			04/21/18 02:52	20
2-Butanone (MEK)	ND *		200	26	ug/L			04/21/18 02:52	20
2-Chlorotoluene	ND		20	17	ug/L			04/21/18 02:52	20
2-Hexanone	ND		200	25	ug/L			04/21/18 02:52	20
4-Chlorotoluene	ND		20	17	ug/L			04/21/18 02:52	20
4-Isopropyltoluene	ND		20	6.2	ug/L			04/21/18 02:52	20
4-Methyl-2-pentanone (MIBK)	ND		200	42	ug/L			04/21/18 02:52	20
Acetone	ND *		1000	60	ug/L			04/21/18 02:52	20
Benzene	ND		20	8.2	ug/L			04/21/18 02:52	20
Bromobenzene	ND		20	16	ug/L			04/21/18 02:52	20
Bromoform	ND		20	5.2	ug/L			04/21/18 02:52	20
Bromomethane	ND		40	14	ug/L			04/21/18 02:52	20
Carbon disulfide	ND		200	3.8	ug/L			04/21/18 02:52	20
Carbon tetrachloride	ND		20	5.4	ug/L			04/21/18 02:52	20
Chlorobenzene	ND		20	15	ug/L			04/21/18 02:52	20
Chlorobromomethane	ND		20	17	ug/L			04/21/18 02:52	20
Chlorodibromomethane	ND		10	6.4	ug/L			04/21/18 02:52	20
Chloroethane	ND		40	6.4	ug/L			04/21/18 02:52	20
Chloroform	ND		20	6.8	ug/L			04/21/18 02:52	20
Chloromethane	ND		40	7.0	ug/L			04/21/18 02:52	20
cis-1,2-Dichloroethene	360		20	16	ug/L			04/21/18 02:52	20
cis-1,3-Dichloropropene	ND		8.0	7.2	ug/L			04/21/18 02:52	20
Dibromomethane	ND		20	8.2	ug/L			04/21/18 02:52	20
Dichlorobromomethane	ND		10	7.8	ug/L			04/21/18 02:52	20
Dichlorodifluoromethane	ND		20	14	ug/L			04/21/18 02:52	20
Ethyl ether	ND		20	14	ug/L			04/21/18 02:52	20
Ethylbenzene	ND		20	15	ug/L			04/21/18 02:52	20
Ethylene Dibromide	ND		20	15	ug/L			04/21/18 02:52	20
Hexachlorobutadiene	ND		8.0	5.6	ug/L			04/21/18 02:52	20

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-PP4B

Lab Sample ID: 480-134067-3

Matrix: Water

Date Collected: 04/12/18 13:50
Date Received: 04/13/18 01:15

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		200	12	ug/L			04/21/18 02:52	20
Isopropylbenzene	ND		20	16	ug/L			04/21/18 02:52	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			04/21/18 02:52	20
Methylene Chloride	ND		20	8.8	ug/L			04/21/18 02:52	20
m-Xylene & p-Xylene	ND		40	13	ug/L			04/21/18 02:52	20
Naphthalene	ND		100	8.6	ug/L			04/21/18 02:52	20
n-Butylbenzene	ND		20	13	ug/L			04/21/18 02:52	20
N-Propylbenzene	ND		20	14	ug/L			04/21/18 02:52	20
o-Xylene	ND		20	15	ug/L			04/21/18 02:52	20
sec-Butylbenzene	ND		20	15	ug/L			04/21/18 02:52	20
Styrene	ND		20	15	ug/L			04/21/18 02:52	20
Tert-amyl methyl ether	ND		100	5.4	ug/L			04/21/18 02:52	20
Tert-butyl ethyl ether	ND		100	5.9	ug/L			04/21/18 02:52	20
tert-Butylbenzene	ND		20	16	ug/L			04/21/18 02:52	20
Tetrachloroethene	ND		20	7.2	ug/L			04/21/18 02:52	20
Tetrahydrofuran	ND *		200	25	ug/L			04/21/18 02:52	20
Toluene	ND		20	10	ug/L			04/21/18 02:52	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			04/21/18 02:52	20
trans-1,3-Dichloropropene	ND		8.0	7.4	ug/L			04/21/18 02:52	20
Trichloroethene	440		20	9.2	ug/L			04/21/18 02:52	20
Trichlorofluoromethane	ND		20	18	ug/L			04/21/18 02:52	20
Vinyl chloride	ND		20	18	ug/L			04/21/18 02:52	20
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108			70 - 130				04/21/18 02:52	20
4-Bromofluorobenzene (Surr)	96			70 - 130				04/21/18 02:52	20
Toluene-d8 (Surr)	92			70 - 130				04/21/18 02:52	20
Dibromofluoromethane (Surr)	103			70 - 130				04/21/18 02:52	20

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	25		5.0	1.0	ug/L		04/14/18 09:34	04/16/18 17:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.018		0.010	0.0050	mg/L			04/13/18 06:39	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-OSW3B

Lab Sample ID: 480-134067-4

Matrix: Water

Date Collected: 04/12/18 15:40

Date Received: 04/13/18 01:15

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.0	1.4	ug/L			04/21/18 14:30	4
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			04/21/18 14:30	4
1,1,2,2-Tetrachloroethane	ND		2.0	0.84	ug/L			04/21/18 14:30	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			04/21/18 14:30	4
1,1-Dichloroethane	ND		4.0	1.5	ug/L			04/21/18 14:30	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			04/21/18 14:30	4
1,1-Dichloropropene	ND		4.0	2.9	ug/L			04/21/18 14:30	4
1,2,3-Trichlorobenzene	ND		4.0	1.6	ug/L			04/21/18 14:30	4
1,2,3-Trichloropropane	ND		4.0	3.6	ug/L			04/21/18 14:30	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			04/21/18 14:30	4
1,2,4-Trimethylbenzene	ND		4.0	3.0	ug/L			04/21/18 14:30	4
1,2-Dibromo-3-Chloropropane	ND		20	1.6	ug/L			04/21/18 14:30	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			04/21/18 14:30	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			04/21/18 14:30	4
1,2-Dichloropropene	ND		4.0	2.9	ug/L			04/21/18 14:30	4
1,3,5-Trimethylbenzene	ND		4.0	3.1	ug/L			04/21/18 14:30	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			04/21/18 14:30	4
1,3-Dichloropropene	ND		4.0	3.0	ug/L			04/21/18 14:30	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			04/21/18 14:30	4
1,4-Dioxane	ND *		200	37	ug/L			04/21/18 14:30	4
2,2-Dichloropropene	ND		4.0	1.6	ug/L			04/21/18 14:30	4
2-Butanone (MEK)	ND *		40	5.3	ug/L			04/21/18 14:30	4
2-Chlorotoluene	ND		4.0	3.4	ug/L			04/21/18 14:30	4
2-Hexanone	ND		40	5.0	ug/L			04/21/18 14:30	4
4-Chlorotoluene	ND		4.0	3.4	ug/L			04/21/18 14:30	4
4-Isopropyltoluene	ND		4.0	1.2	ug/L			04/21/18 14:30	4
4-Methyl-2-pentanone (MIBK)	ND		40	8.4	ug/L			04/21/18 14:30	4
Acetone	18 J*		200	12	ug/L			04/21/18 14:30	4
Benzene	ND		4.0	1.6	ug/L			04/21/18 14:30	4
Bromobenzene	ND		4.0	3.2	ug/L			04/21/18 14:30	4
Bromoform	ND		4.0	1.0	ug/L			04/21/18 14:30	4
Bromomethane	ND		8.0	2.8	ug/L			04/21/18 14:30	4
Carbon disulfide	ND		40	0.76	ug/L			04/21/18 14:30	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			04/21/18 14:30	4
Chlorobenzene	ND		4.0	3.0	ug/L			04/21/18 14:30	4
Chlorobromomethane	ND		4.0	3.5	ug/L			04/21/18 14:30	4
Chlorodibromomethane	ND		2.0	1.3	ug/L			04/21/18 14:30	4
Chloroethane	ND		8.0	1.3	ug/L			04/21/18 14:30	4
Chloroform	ND		4.0	1.4	ug/L			04/21/18 14:30	4
Chloromethane	ND		8.0	1.4	ug/L			04/21/18 14:30	4
cis-1,2-Dichloroethene	120		4.0	3.2	ug/L			04/21/18 14:30	4
cis-1,3-Dichloropropene	ND		1.6	1.4	ug/L			04/21/18 14:30	4
Dibromomethane	ND		4.0	1.6	ug/L			04/21/18 14:30	4
Dichlorobromomethane	ND		2.0	1.6	ug/L			04/21/18 14:30	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			04/21/18 14:30	4
Ethyl ether	ND		4.0	2.9	ug/L			04/21/18 14:30	4
Ethylbenzene	ND		4.0	3.0	ug/L			04/21/18 14:30	4
Ethylene Dibromide	ND		4.0	2.9	ug/L			04/21/18 14:30	4
Hexachlorobutadiene	ND		1.6	1.1	ug/L			04/21/18 14:30	4

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-OSW3B

Lab Sample ID: 480-134067-4

Matrix: Water

Date Collected: 04/12/18 15:40
Date Received: 04/13/18 01:15

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		40	2.4	ug/L			04/21/18 14:30	4
Isopropylbenzene	ND		4.0	3.2	ug/L			04/21/18 14:30	4
Methyl tert-butyl ether	ND		4.0	0.64	ug/L			04/21/18 14:30	4
Methylene Chloride	2.4 J		4.0	1.8	ug/L			04/21/18 14:30	4
m-Xylene & p-Xylene	ND		8.0	2.6	ug/L			04/21/18 14:30	4
Naphthalene	ND		20	1.7	ug/L			04/21/18 14:30	4
n-Butylbenzene	ND		4.0	2.6	ug/L			04/21/18 14:30	4
N-Propylbenzene	ND		4.0	2.8	ug/L			04/21/18 14:30	4
o-Xylene	ND		4.0	3.0	ug/L			04/21/18 14:30	4
sec-Butylbenzene	ND		4.0	3.0	ug/L			04/21/18 14:30	4
Styrene	ND		4.0	2.9	ug/L			04/21/18 14:30	4
Tert-amyl methyl ether	ND		20	1.1	ug/L			04/21/18 14:30	4
Tert-butyl ethyl ether	ND		20	1.2	ug/L			04/21/18 14:30	4
tert-Butylbenzene	ND		4.0	3.2	ug/L			04/21/18 14:30	4
Tetrachloroethene	ND		4.0	1.4	ug/L			04/21/18 14:30	4
Tetrahydrofuran	ND *		40	5.0	ug/L			04/21/18 14:30	4
Toluene	ND		4.0	2.0	ug/L			04/21/18 14:30	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			04/21/18 14:30	4
trans-1,3-Dichloropropene	ND		1.6	1.5	ug/L			04/21/18 14:30	4
Trichloroethene	160		4.0	1.8	ug/L			04/21/18 14:30	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			04/21/18 14:30	4
Vinyl chloride	ND		4.0	3.6	ug/L			04/21/18 14:30	4
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109			70 - 130				04/21/18 14:30	4
4-Bromofluorobenzene (Surr)	94			70 - 130				04/21/18 14:30	4
Toluene-d8 (Surr)	94			70 - 130				04/21/18 14:30	4
Dibromofluoromethane (Surr)	107			70 - 130				04/21/18 14:30	4

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		5.0	1.0	ug/L		04/14/18 09:34	04/16/18 17:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			04/13/18 06:39	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-CLW16B

Lab Sample ID: 480-134067-5

Matrix: Water

Date Collected: 04/12/18 11:45

Date Received: 04/13/18 01:15

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		130	44	ug/L			04/21/18 14:54	125
1,1,1-Trichloroethane	ND		130	100	ug/L			04/21/18 14:54	125
1,1,2,2-Tetrachloroethane	ND		63	26	ug/L			04/21/18 14:54	125
1,1,2-Trichloroethane	ND		130	29	ug/L			04/21/18 14:54	125
1,1-Dichloroethane	ND		130	48	ug/L			04/21/18 14:54	125
1,1-Dichloroethene	ND		130	36	ug/L			04/21/18 14:54	125
1,1-Dichloropropene	ND		130	90	ug/L			04/21/18 14:54	125
1,2,3-Trichlorobenzene	ND		130	51	ug/L			04/21/18 14:54	125
1,2,3-Trichloropropane	ND		130	110	ug/L			04/21/18 14:54	125
1,2,4-Trichlorobenzene	ND		130	51	ug/L			04/21/18 14:54	125
1,2,4-Trimethylbenzene	ND		130	94	ug/L			04/21/18 14:54	125
1,2-Dibromo-3-Chloropropane	ND		630	49	ug/L			04/21/18 14:54	125
1,2-Dichlorobenzene	ND		130	99	ug/L			04/21/18 14:54	125
1,2-Dichloroethane	ND		130	26	ug/L			04/21/18 14:54	125
1,2-Dichloropropene	ND		130	90	ug/L			04/21/18 14:54	125
1,3,5-Trimethylbenzene	ND		130	96	ug/L			04/21/18 14:54	125
1,3-Dichlorobenzene	ND		130	98	ug/L			04/21/18 14:54	125
1,3-Dichloropropene	ND		130	94	ug/L			04/21/18 14:54	125
1,4-Dichlorobenzene	ND		130	110	ug/L			04/21/18 14:54	125
1,4-Dioxane	ND *		6300	1200	ug/L			04/21/18 14:54	125
2,2-Dichloropropene	ND		130	50	ug/L			04/21/18 14:54	125
2-Butanone (MEK)	ND *		1300	170	ug/L			04/21/18 14:54	125
2-Chlorotoluene	ND		130	110	ug/L			04/21/18 14:54	125
2-Hexanone	ND		1300	160	ug/L			04/21/18 14:54	125
4-Chlorotoluene	ND		130	110	ug/L			04/21/18 14:54	125
4-Isopropyltoluene	ND		130	39	ug/L			04/21/18 14:54	125
4-Methyl-2-pentanone (MIBK)	ND		1300	260	ug/L			04/21/18 14:54	125
Acetone	ND *		6300	380	ug/L			04/21/18 14:54	125
Benzene	ND		130	51	ug/L			04/21/18 14:54	125
Bromobenzene	ND		130	100	ug/L			04/21/18 14:54	125
Bromoform	ND		130	33	ug/L			04/21/18 14:54	125
Bromomethane	ND		250	86	ug/L			04/21/18 14:54	125
Carbon disulfide	ND		1300	24	ug/L			04/21/18 14:54	125
Carbon tetrachloride	ND		130	34	ug/L			04/21/18 14:54	125
Chlorobenzene	ND		130	94	ug/L			04/21/18 14:54	125
Chlorobromomethane	ND		130	110	ug/L			04/21/18 14:54	125
Chlorodibromomethane	ND		63	40	ug/L			04/21/18 14:54	125
Chloroethane	ND		250	40	ug/L			04/21/18 14:54	125
Chloroform	ND		130	43	ug/L			04/21/18 14:54	125
Chloromethane	ND		250	44	ug/L			04/21/18 14:54	125
cis-1,2-Dichloroethene	1800		130	100	ug/L			04/21/18 14:54	125
cis-1,3-Dichloropropene	ND		50	45	ug/L			04/21/18 14:54	125
Dibromomethane	ND		130	51	ug/L			04/21/18 14:54	125
Dichlorobromomethane	ND		63	49	ug/L			04/21/18 14:54	125
Dichlorodifluoromethane	ND		130	85	ug/L			04/21/18 14:54	125
Ethyl ether	ND		130	90	ug/L			04/21/18 14:54	125
Ethylbenzene	ND		130	93	ug/L			04/21/18 14:54	125
Ethylene Dibromide	ND		130	91	ug/L			04/21/18 14:54	125
Hexachlorobutadiene	ND		50	35	ug/L			04/21/18 14:54	125

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-CLW16B

Lab Sample ID: 480-134067-5

Matrix: Water

Date Collected: 04/12/18 11:45
Date Received: 04/13/18 01:15

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		1300	74	ug/L			04/21/18 14:54	125
Isopropylbenzene	ND		130	99	ug/L			04/21/18 14:54	125
Methyl tert-butyl ether	ND		130	20	ug/L			04/21/18 14:54	125
Methylene Chloride	71 J		130	55	ug/L			04/21/18 14:54	125
m-Xylene & p-Xylene	ND		250	83	ug/L			04/21/18 14:54	125
Naphthalene	ND		630	54	ug/L			04/21/18 14:54	125
n-Butylbenzene	ND		130	80	ug/L			04/21/18 14:54	125
N-Propylbenzene	ND		130	86	ug/L			04/21/18 14:54	125
o-Xylene	ND		130	95	ug/L			04/21/18 14:54	125
sec-Butylbenzene	ND		130	94	ug/L			04/21/18 14:54	125
Styrene	ND		130	91	ug/L			04/21/18 14:54	125
Tert-amyl methyl ether	ND		630	34	ug/L			04/21/18 14:54	125
Tert-butyl ethyl ether	ND		630	37	ug/L			04/21/18 14:54	125
tert-Butylbenzene	ND		130	100	ug/L			04/21/18 14:54	125
Tetrachloroethene	ND		130	45	ug/L			04/21/18 14:54	125
Tetrahydrofuran	ND *		1300	160	ug/L			04/21/18 14:54	125
Toluene	ND		130	64	ug/L			04/21/18 14:54	125
trans-1,2-Dichloroethene	270		130	110	ug/L			04/21/18 14:54	125
trans-1,3-Dichloropropene	ND		50	46	ug/L			04/21/18 14:54	125
Trichloroethene	6700		130	58	ug/L			04/21/18 14:54	125
Trichlorofluoromethane	ND		130	110	ug/L			04/21/18 14:54	125
Vinyl chloride	590		130	110	ug/L			04/21/18 14:54	125
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		70 - 130					04/21/18 14:54	125
4-Bromofluorobenzene (Surr)	94		70 - 130					04/21/18 14:54	125
Toluene-d8 (Surr)	93		70 - 130					04/21/18 14:54	125
Dibromofluoromethane (Surr)	103		70 - 130					04/21/18 14:54	125

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	18		5.0	1.0	ug/L		04/14/18 09:34	04/16/18 17:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			04/13/18 06:39	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-OSW3A

Lab Sample ID: 480-134067-6

Matrix: Water

Date Collected: 04/12/18 13:23

Date Received: 04/13/18 01:15

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/21/18 04:03	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/21/18 04:03	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/21/18 04:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/21/18 04:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/21/18 04:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/21/18 04:03	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/21/18 04:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/21/18 04:03	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/21/18 04:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/21/18 04:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/21/18 04:03	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/21/18 04:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/21/18 04:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/21/18 04:03	1
1,2-Dichloropropene	ND		1.0	0.72	ug/L			04/21/18 04:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/21/18 04:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/21/18 04:03	1
1,3-Dichloropropene	ND		1.0	0.75	ug/L			04/21/18 04:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/21/18 04:03	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/21/18 04:03	1
2,2-Dichloropropene	ND		1.0	0.40	ug/L			04/21/18 04:03	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/21/18 04:03	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/21/18 04:03	1
2-Hexanone	ND		10	1.2	ug/L			04/21/18 04:03	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/21/18 04:03	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/21/18 04:03	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/21/18 04:03	1
Acetone	3.9 J*		50	3.0	ug/L			04/21/18 04:03	1
Benzene	ND		1.0	0.41	ug/L			04/21/18 04:03	1
Bromobenzene	ND		1.0	0.80	ug/L			04/21/18 04:03	1
Bromoform	ND		1.0	0.26	ug/L			04/21/18 04:03	1
Bromomethane	ND		2.0	0.69	ug/L			04/21/18 04:03	1
Carbon disulfide	ND		10	0.19	ug/L			04/21/18 04:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/21/18 04:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/21/18 04:03	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/21/18 04:03	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/21/18 04:03	1
Chloroethane	ND		2.0	0.32	ug/L			04/21/18 04:03	1
Chloroform	ND		1.0	0.34	ug/L			04/21/18 04:03	1
Chloromethane	ND		2.0	0.35	ug/L			04/21/18 04:03	1
cis-1,2-Dichloroethene	1.7		1.0	0.81	ug/L			04/21/18 04:03	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/21/18 04:03	1
Dibromomethane	ND		1.0	0.41	ug/L			04/21/18 04:03	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/21/18 04:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/21/18 04:03	1
Ethyl ether	ND		1.0	0.72	ug/L			04/21/18 04:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/21/18 04:03	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/21/18 04:03	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/21/18 04:03	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-OSW3A

Lab Sample ID: 480-134067-6

Matrix: Water

Date Collected: 04/12/18 13:23
Date Received: 04/13/18 01:15

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/21/18 04:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/21/18 04:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/21/18 04:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/21/18 04:03	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/21/18 04:03	1
Naphthalene	ND		5.0	0.43	ug/L			04/21/18 04:03	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/21/18 04:03	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/21/18 04:03	1
o-Xylene	ND		1.0	0.76	ug/L			04/21/18 04:03	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/21/18 04:03	1
Styrene	ND		1.0	0.73	ug/L			04/21/18 04:03	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/21/18 04:03	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/21/18 04:03	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/21/18 04:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/21/18 04:03	1
Tetrahydrofuran	ND *		10	1.3	ug/L			04/21/18 04:03	1
Toluene	ND		1.0	0.51	ug/L			04/21/18 04:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/21/18 04:03	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/21/18 04:03	1
Trichloroethene	32		1.0	0.46	ug/L			04/21/18 04:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/21/18 04:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/21/18 04:03	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112			70 - 130				04/21/18 04:03	1
4-Bromofluorobenzene (Surr)	97			70 - 130				04/21/18 04:03	1
Toluene-d8 (Surr)	91			70 - 130				04/21/18 04:03	1
Dibromofluoromethane (Surr)	108			70 - 130				04/21/18 04:03	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	16		5.0	1.0	ug/L		04/14/18 09:34	04/16/18 17:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.016		0.010	0.0050	mg/L			04/13/18 06:39	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
 Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-OSW2B

Lab Sample ID: 480-134067-7

Matrix: Water

Date Collected: 04/12/18 15:27

Date Received: 04/13/18 01:15

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		40	14	ug/L			04/21/18 04:27	40
1,1,1-Trichloroethane	ND		40	33	ug/L			04/21/18 04:27	40
1,1,2,2-Tetrachloroethane	ND		20	8.4	ug/L			04/21/18 04:27	40
1,1,2-Trichloroethane	ND		40	9.2	ug/L			04/21/18 04:27	40
1,1-Dichloroethane	ND		40	15	ug/L			04/21/18 04:27	40
1,1-Dichloroethene	ND		40	12	ug/L			04/21/18 04:27	40
1,1-Dichloropropene	ND		40	29	ug/L			04/21/18 04:27	40
1,2,3-Trichlorobenzene	ND		40	16	ug/L			04/21/18 04:27	40
1,2,3-Trichloropropane	ND		40	36	ug/L			04/21/18 04:27	40
1,2,4-Trichlorobenzene	ND		40	16	ug/L			04/21/18 04:27	40
1,2,4-Trimethylbenzene	ND		40	30	ug/L			04/21/18 04:27	40
1,2-Dibromo-3-Chloropropane	ND		200	16	ug/L			04/21/18 04:27	40
1,2-Dichlorobenzene	ND		40	32	ug/L			04/21/18 04:27	40
1,2-Dichloroethane	ND		40	8.4	ug/L			04/21/18 04:27	40
1,2-Dichloropropene	ND		40	29	ug/L			04/21/18 04:27	40
1,3,5-Trimethylbenzene	ND		40	31	ug/L			04/21/18 04:27	40
1,3-Dichlorobenzene	ND		40	31	ug/L			04/21/18 04:27	40
1,3-Dichloropropene	ND		40	30	ug/L			04/21/18 04:27	40
1,4-Dichlorobenzene	ND		40	34	ug/L			04/21/18 04:27	40
1,4-Dioxane	ND *		2000	370	ug/L			04/21/18 04:27	40
2,2-Dichloropropene	ND		40	16	ug/L			04/21/18 04:27	40
2-Butanone (MEK)	ND *		400	53	ug/L			04/21/18 04:27	40
2-Chlorotoluene	ND		40	34	ug/L			04/21/18 04:27	40
2-Hexanone	ND		400	50	ug/L			04/21/18 04:27	40
4-Chlorotoluene	ND		40	34	ug/L			04/21/18 04:27	40
4-Isopropyltoluene	ND		40	12	ug/L			04/21/18 04:27	40
4-Methyl-2-pentanone (MIBK)	ND		400	84	ug/L			04/21/18 04:27	40
Acetone	ND *		2000	120	ug/L			04/21/18 04:27	40
Benzene	ND		40	16	ug/L			04/21/18 04:27	40
Bromobenzene	ND		40	32	ug/L			04/21/18 04:27	40
Bromoform	ND		40	10	ug/L			04/21/18 04:27	40
Bromomethane	ND		80	28	ug/L			04/21/18 04:27	40
Carbon disulfide	ND		400	7.6	ug/L			04/21/18 04:27	40
Carbon tetrachloride	ND		40	11	ug/L			04/21/18 04:27	40
Chlorobenzene	ND		40	30	ug/L			04/21/18 04:27	40
Chlorobromomethane	ND		40	35	ug/L			04/21/18 04:27	40
Chlorodibromomethane	ND		20	13	ug/L			04/21/18 04:27	40
Chloroethane	ND		80	13	ug/L			04/21/18 04:27	40
Chloroform	ND		40	14	ug/L			04/21/18 04:27	40
Chloromethane	ND		80	14	ug/L			04/21/18 04:27	40
cis-1,2-Dichloroethene	110		40	32	ug/L			04/21/18 04:27	40
cis-1,3-Dichloropropene	ND		16	14	ug/L			04/21/18 04:27	40
Dibromomethane	ND		40	16	ug/L			04/21/18 04:27	40
Dichlorobromomethane	ND		20	16	ug/L			04/21/18 04:27	40
Dichlorodifluoromethane	ND		40	27	ug/L			04/21/18 04:27	40
Ethyl ether	ND		40	29	ug/L			04/21/18 04:27	40
Ethylbenzene	ND		40	30	ug/L			04/21/18 04:27	40
Ethylene Dibromide	ND		40	29	ug/L			04/21/18 04:27	40
Hexachlorobutadiene	ND		16	11	ug/L			04/21/18 04:27	40

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-OSW2B

Lab Sample ID: 480-134067-7

Matrix: Water

Date Collected: 04/12/18 15:27
Date Received: 04/13/18 01:15

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		400	24	ug/L			04/21/18 04:27	40
Isopropylbenzene	ND		40	32	ug/L			04/21/18 04:27	40
Methyl tert-butyl ether	ND		40	6.4	ug/L			04/21/18 04:27	40
Methylene Chloride	ND		40	18	ug/L			04/21/18 04:27	40
m-Xylene & p-Xylene	ND		80	26	ug/L			04/21/18 04:27	40
Naphthalene	ND		200	17	ug/L			04/21/18 04:27	40
n-Butylbenzene	ND		40	26	ug/L			04/21/18 04:27	40
N-Propylbenzene	ND		40	28	ug/L			04/21/18 04:27	40
o-Xylene	ND		40	30	ug/L			04/21/18 04:27	40
sec-Butylbenzene	ND		40	30	ug/L			04/21/18 04:27	40
Styrene	ND		40	29	ug/L			04/21/18 04:27	40
Tert-amyl methyl ether	ND		200	11	ug/L			04/21/18 04:27	40
Tert-butyl ethyl ether	ND		200	12	ug/L			04/21/18 04:27	40
tert-Butylbenzene	ND		40	32	ug/L			04/21/18 04:27	40
Tetrachloroethene	ND		40	14	ug/L			04/21/18 04:27	40
Tetrahydrofuran	ND *		400	50	ug/L			04/21/18 04:27	40
Toluene	ND		40	20	ug/L			04/21/18 04:27	40
trans-1,2-Dichloroethene	43		40	36	ug/L			04/21/18 04:27	40
trans-1,3-Dichloropropene	ND		16	15	ug/L			04/21/18 04:27	40
Trichloroethene	1800		40	18	ug/L			04/21/18 04:27	40
Trichlorofluoromethane	ND		40	35	ug/L			04/21/18 04:27	40
Vinyl chloride	ND		40	36	ug/L			04/21/18 04:27	40
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111			70 - 130				04/21/18 04:27	40
4-Bromofluorobenzene (Surr)	92			70 - 130				04/21/18 04:27	40
Toluene-d8 (Surr)	87			70 - 130				04/21/18 04:27	40
Dibromofluoromethane (Surr)	107			70 - 130				04/21/18 04:27	40

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	700		5.0	1.0	ug/L		04/14/18 09:34	04/16/18 18:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.17		0.010	0.0050	mg/L			04/13/18 06:39	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-CLW16BDUP

Lab Sample ID: 480-134067-8

Matrix: Water

Date Collected: 04/12/18 11:45

Date Received: 04/13/18 01:15

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		130	44	ug/L			04/21/18 15:17	125
1,1,1-Trichloroethane	ND		130	100	ug/L			04/21/18 15:17	125
1,1,2,2-Tetrachloroethane	ND		63	26	ug/L			04/21/18 15:17	125
1,1,2-Trichloroethane	ND		130	29	ug/L			04/21/18 15:17	125
1,1-Dichloroethane	ND		130	48	ug/L			04/21/18 15:17	125
1,1-Dichloroethene	ND		130	36	ug/L			04/21/18 15:17	125
1,1-Dichloropropene	ND		130	90	ug/L			04/21/18 15:17	125
1,2,3-Trichlorobenzene	ND		130	51	ug/L			04/21/18 15:17	125
1,2,3-Trichloropropane	ND		130	110	ug/L			04/21/18 15:17	125
1,2,4-Trichlorobenzene	ND		130	51	ug/L			04/21/18 15:17	125
1,2,4-Trimethylbenzene	ND		130	94	ug/L			04/21/18 15:17	125
1,2-Dibromo-3-Chloropropane	ND		630	49	ug/L			04/21/18 15:17	125
1,2-Dichlorobenzene	ND		130	99	ug/L			04/21/18 15:17	125
1,2-Dichloroethane	ND		130	26	ug/L			04/21/18 15:17	125
1,2-Dichloropropene	ND		130	90	ug/L			04/21/18 15:17	125
1,3,5-Trimethylbenzene	ND		130	96	ug/L			04/21/18 15:17	125
1,3-Dichlorobenzene	ND		130	98	ug/L			04/21/18 15:17	125
1,3-Dichloropropene	ND		130	94	ug/L			04/21/18 15:17	125
1,4-Dichlorobenzene	ND		130	110	ug/L			04/21/18 15:17	125
1,4-Dioxane	ND *		6300	1200	ug/L			04/21/18 15:17	125
2,2-Dichloropropene	ND		130	50	ug/L			04/21/18 15:17	125
2-Butanone (MEK)	ND *		1300	170	ug/L			04/21/18 15:17	125
2-Chlorotoluene	ND		130	110	ug/L			04/21/18 15:17	125
2-Hexanone	ND		1300	160	ug/L			04/21/18 15:17	125
4-Chlorotoluene	ND		130	110	ug/L			04/21/18 15:17	125
4-Isopropyltoluene	ND		130	39	ug/L			04/21/18 15:17	125
4-Methyl-2-pentanone (MIBK)	ND		1300	260	ug/L			04/21/18 15:17	125
Acetone	ND *		6300	380	ug/L			04/21/18 15:17	125
Benzene	ND		130	51	ug/L			04/21/18 15:17	125
Bromobenzene	ND		130	100	ug/L			04/21/18 15:17	125
Bromoform	ND		130	33	ug/L			04/21/18 15:17	125
Bromomethane	ND		250	86	ug/L			04/21/18 15:17	125
Carbon disulfide	ND		1300	24	ug/L			04/21/18 15:17	125
Carbon tetrachloride	ND		130	34	ug/L			04/21/18 15:17	125
Chlorobenzene	ND		130	94	ug/L			04/21/18 15:17	125
Chlorobromomethane	ND		130	110	ug/L			04/21/18 15:17	125
Chlorodibromomethane	ND		63	40	ug/L			04/21/18 15:17	125
Chloroethane	ND		250	40	ug/L			04/21/18 15:17	125
Chloroform	ND		130	43	ug/L			04/21/18 15:17	125
Chloromethane	ND		250	44	ug/L			04/21/18 15:17	125
cis-1,2-Dichloroethene	1800		130	100	ug/L			04/21/18 15:17	125
cis-1,3-Dichloropropene	ND		50	45	ug/L			04/21/18 15:17	125
Dibromomethane	ND		130	51	ug/L			04/21/18 15:17	125
Dichlorobromomethane	ND		63	49	ug/L			04/21/18 15:17	125
Dichlorodifluoromethane	ND		130	85	ug/L			04/21/18 15:17	125
Ethyl ether	ND		130	90	ug/L			04/21/18 15:17	125
Ethylbenzene	ND		130	93	ug/L			04/21/18 15:17	125
Ethylene Dibromide	ND		130	91	ug/L			04/21/18 15:17	125
Hexachlorobutadiene	ND		50	35	ug/L			04/21/18 15:17	125

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-CLW16BDUP

Lab Sample ID: 480-134067-8

Matrix: Water

Date Collected: 04/12/18 11:45
Date Received: 04/13/18 01:15

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		1300	74	ug/L			04/21/18 15:17	125
Isopropylbenzene	ND		130	99	ug/L			04/21/18 15:17	125
Methyl tert-butyl ether	ND		130	20	ug/L			04/21/18 15:17	125
Methylene Chloride	82 J		130	55	ug/L			04/21/18 15:17	125
m-Xylene & p-Xylene	ND		250	83	ug/L			04/21/18 15:17	125
Naphthalene	ND		630	54	ug/L			04/21/18 15:17	125
n-Butylbenzene	ND		130	80	ug/L			04/21/18 15:17	125
N-Propylbenzene	ND		130	86	ug/L			04/21/18 15:17	125
o-Xylene	ND		130	95	ug/L			04/21/18 15:17	125
sec-Butylbenzene	ND		130	94	ug/L			04/21/18 15:17	125
Styrene	ND		130	91	ug/L			04/21/18 15:17	125
Tert-amyl methyl ether	ND		630	34	ug/L			04/21/18 15:17	125
Tert-butyl ethyl ether	ND		630	37	ug/L			04/21/18 15:17	125
tert-Butylbenzene	ND		130	100	ug/L			04/21/18 15:17	125
Tetrachloroethene	ND		130	45	ug/L			04/21/18 15:17	125
Tetrahydrofuran	ND *		1300	160	ug/L			04/21/18 15:17	125
Toluene	ND		130	64	ug/L			04/21/18 15:17	125
trans-1,2-Dichloroethene	240		130	110	ug/L			04/21/18 15:17	125
trans-1,3-Dichloropropene	ND		50	46	ug/L			04/21/18 15:17	125
Trichloroethene	6800		130	58	ug/L			04/21/18 15:17	125
Trichlorofluoromethane	ND		130	110	ug/L			04/21/18 15:17	125
Vinyl chloride	540		130	110	ug/L			04/21/18 15:17	125
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		70 - 130					04/21/18 15:17	125
4-Bromofluorobenzene (Surr)	92		70 - 130					04/21/18 15:17	125
Toluene-d8 (Surr)	89		70 - 130					04/21/18 15:17	125
Dibromofluoromethane (Surr)	105		70 - 130					04/21/18 15:17	125

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	19		5.0	1.0	ug/L		04/14/18 09:34	04/16/18 18:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			04/13/18 06:39	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-Trip Blank

Date Collected: 04/12/18 00:00

Date Received: 04/13/18 01:15

Lab Sample ID: 480-134067-9

Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/21/18 00:54	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/21/18 00:54	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/21/18 00:54	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/21/18 00:54	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/21/18 00:54	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/21/18 00:54	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/21/18 00:54	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/21/18 00:54	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/21/18 00:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/21/18 00:54	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/21/18 00:54	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/21/18 00:54	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/21/18 00:54	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/21/18 00:54	1
1,2-Dichloropropene	ND		1.0	0.72	ug/L			04/21/18 00:54	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/21/18 00:54	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/21/18 00:54	1
1,3-Dichloropropene	ND		1.0	0.75	ug/L			04/21/18 00:54	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/21/18 00:54	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/21/18 00:54	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/21/18 00:54	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			04/21/18 00:54	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/21/18 00:54	1
2-Hexanone	ND		10	1.2	ug/L			04/21/18 00:54	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/21/18 00:54	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/21/18 00:54	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/21/18 00:54	1
Acetone	ND *		50	3.0	ug/L			04/21/18 00:54	1
Benzene	ND		1.0	0.41	ug/L			04/21/18 00:54	1
Bromobenzene	ND		1.0	0.80	ug/L			04/21/18 00:54	1
Bromoform	ND		1.0	0.26	ug/L			04/21/18 00:54	1
Bromomethane	ND		2.0	0.69	ug/L			04/21/18 00:54	1
Carbon disulfide	ND		10	0.19	ug/L			04/21/18 00:54	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/21/18 00:54	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/21/18 00:54	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/21/18 00:54	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/21/18 00:54	1
Chloroethane	ND		2.0	0.32	ug/L			04/21/18 00:54	1
Chloroform	ND		1.0	0.34	ug/L			04/21/18 00:54	1
Chloromethane	ND		2.0	0.35	ug/L			04/21/18 00:54	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/21/18 00:54	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/21/18 00:54	1
Dibromomethane	ND		1.0	0.41	ug/L			04/21/18 00:54	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/21/18 00:54	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/21/18 00:54	1
Ethyl ether	ND		1.0	0.72	ug/L			04/21/18 00:54	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/21/18 00:54	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/21/18 00:54	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/21/18 00:54	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-Trip Blank

Lab Sample ID: 480-134067-9

Matrix: Water

Date Collected: 04/12/18 00:00

Date Received: 04/13/18 01:15

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L		04/21/18 00:54		1
Isopropylbenzene	ND		1.0	0.79	ug/L		04/21/18 00:54		1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L		04/21/18 00:54		1
Methylene Chloride	ND		1.0	0.44	ug/L		04/21/18 00:54		1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L		04/21/18 00:54		1
Naphthalene	ND		5.0	0.43	ug/L		04/21/18 00:54		1
n-Butylbenzene	ND		1.0	0.64	ug/L		04/21/18 00:54		1
N-Propylbenzene	ND		1.0	0.69	ug/L		04/21/18 00:54		1
o-Xylene	ND		1.0	0.76	ug/L		04/21/18 00:54		1
sec-Butylbenzene	ND		1.0	0.75	ug/L		04/21/18 00:54		1
Styrene	ND		1.0	0.73	ug/L		04/21/18 00:54		1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L		04/21/18 00:54		1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L		04/21/18 00:54		1
tert-Butylbenzene	ND		1.0	0.81	ug/L		04/21/18 00:54		1
Tetrachloroethene	ND		1.0	0.36	ug/L		04/21/18 00:54		1
Tetrahydrofuran	ND *		10	1.3	ug/L		04/21/18 00:54		1
Toluene	ND		1.0	0.51	ug/L		04/21/18 00:54		1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L		04/21/18 00:54		1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L		04/21/18 00:54		1
Trichloroethene	ND		1.0	0.46	ug/L		04/21/18 00:54		1
Trichlorofluoromethane	ND		1.0	0.88	ug/L		04/21/18 00:54		1
Vinyl chloride	ND		1.0	0.90	ug/L		04/21/18 00:54		1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)		106		70 - 130			04/21/18 00:54		1
4-Bromofluorobenzene (Surr)		93		70 - 130			04/21/18 00:54		1
Toluene-d8 (Surr)		90		70 - 130			04/21/18 00:54		1
Dibromofluoromethane (Surr)		104		70 - 130			04/21/18 00:54		1

TestAmerica Buffalo

Surrogate Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (70-130)	BFB (70-130)	TOL (70-130)	DBFM (70-130)						
480-134067-1	C041218-PP3	110	96	96	105						
480-134067-2	C041218-PP4A	110	93	92	105						
480-134067-3	C041218-PP4B	108	96	92	103						
480-134067-4	C041218-OSW3B	109	94	94	107						
480-134067-5	C041218-CLW16B	110	94	93	103						
480-134067-6	C041218-OSW3A	112	97	91	108						
480-134067-7	C041218-OSW2B	111	92	87	107						
480-134067-8	C041218-CLW16BDUP	110	92	89	105						
480-134067-9	C041218-Trip Blank	106	93	90	104						
LCS 480-410081/5	Lab Control Sample	113	103	96	105						
LCS 480-410111/5	Lab Control Sample	117	100	97	113						
LCSD 480-410081/6	Lab Control Sample Dup	104	101	95	101						
LCSD 480-410111/6	Lab Control Sample Dup	112	98	92	107						
MB 480-410081/8	Method Blank	111	95	97	104						
MB 480-410111/8	Method Blank	110	98	98	106						

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-410081/8

Matrix: Water

Analysis Batch: 410081

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/20/18 23:32	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/20/18 23:32	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/20/18 23:32	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/20/18 23:32	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/20/18 23:32	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/20/18 23:32	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/20/18 23:32	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/20/18 23:32	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/20/18 23:32	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/20/18 23:32	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/20/18 23:32	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/20/18 23:32	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/20/18 23:32	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/20/18 23:32	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/20/18 23:32	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/20/18 23:32	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/20/18 23:32	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/20/18 23:32	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/20/18 23:32	1
1,4-Dioxane	17.0	J	50	9.3	ug/L			04/20/18 23:32	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/20/18 23:32	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/20/18 23:32	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/20/18 23:32	1
2-Hexanone	ND		10	1.2	ug/L			04/20/18 23:32	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/20/18 23:32	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/20/18 23:32	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/20/18 23:32	1
Acetone	ND		50	3.0	ug/L			04/20/18 23:32	1
Benzene	ND		1.0	0.41	ug/L			04/20/18 23:32	1
Bromobenzene	ND		1.0	0.80	ug/L			04/20/18 23:32	1
Bromoform	ND		1.0	0.26	ug/L			04/20/18 23:32	1
Bromomethane	ND		2.0	0.69	ug/L			04/20/18 23:32	1
Carbon disulfide	ND		10	0.19	ug/L			04/20/18 23:32	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/20/18 23:32	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/20/18 23:32	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/20/18 23:32	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/20/18 23:32	1
Chloroethane	ND		2.0	0.32	ug/L			04/20/18 23:32	1
Chloroform	ND		1.0	0.34	ug/L			04/20/18 23:32	1
Chloromethane	ND		2.0	0.35	ug/L			04/20/18 23:32	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/20/18 23:32	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/20/18 23:32	1
Dibromomethane	ND		1.0	0.41	ug/L			04/20/18 23:32	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/20/18 23:32	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/20/18 23:32	1
Ethyl ether	ND		1.0	0.72	ug/L			04/20/18 23:32	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/20/18 23:32	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/20/18 23:32	1

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-410081/8

Matrix: Water

Analysis Batch: 410081

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	ND	ND									
Hexachlorobutadiene	ND	ND			0.40	0.28	ug/L			04/20/18 23:32	1
Isopropyl ether	ND	ND			10	0.59	ug/L			04/20/18 23:32	1
Isopropylbenzene	ND	ND			1.0	0.79	ug/L			04/20/18 23:32	1
Methyl tert-butyl ether	ND	ND			1.0	0.16	ug/L			04/20/18 23:32	1
Methylene Chloride	ND	ND			1.0	0.44	ug/L			04/20/18 23:32	1
m-Xylene & p-Xylene	ND	ND			2.0	0.66	ug/L			04/20/18 23:32	1
Naphthalene	ND	ND			5.0	0.43	ug/L			04/20/18 23:32	1
n-Butylbenzene	ND	ND			1.0	0.64	ug/L			04/20/18 23:32	1
N-Propylbenzene	ND	ND			1.0	0.69	ug/L			04/20/18 23:32	1
o-Xylene	ND	ND			1.0	0.76	ug/L			04/20/18 23:32	1
sec-Butylbenzene	ND	ND			1.0	0.75	ug/L			04/20/18 23:32	1
Styrene	ND	ND			1.0	0.73	ug/L			04/20/18 23:32	1
Tert-amyl methyl ether	ND	ND			5.0	0.27	ug/L			04/20/18 23:32	1
Tert-butyl ethyl ether	ND	ND			5.0	0.29	ug/L			04/20/18 23:32	1
tert-Butylbenzene	ND	ND			1.0	0.81	ug/L			04/20/18 23:32	1
Tetrachloroethene	ND	ND			1.0	0.36	ug/L			04/20/18 23:32	1
Tetrahydrofuran	ND	ND			10	1.3	ug/L			04/20/18 23:32	1
Toluene	ND	ND			1.0	0.51	ug/L			04/20/18 23:32	1
trans-1,2-Dichloroethene	ND	ND			1.0	0.90	ug/L			04/20/18 23:32	1
trans-1,3-Dichloropropene	ND	ND			0.40	0.37	ug/L			04/20/18 23:32	1
Trichloroethene	ND	ND			1.0	0.46	ug/L			04/20/18 23:32	1
Trichlorofluoromethane	ND	ND			1.0	0.88	ug/L			04/20/18 23:32	1
Vinyl chloride	ND	ND			1.0	0.90	ug/L			04/20/18 23:32	1

MB MB

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1,2-Dichloroethane-d4 (Surr)	111		70 - 130				04/20/18 23:32	1
4-Bromofluorobenzene (Surr)	95		70 - 130				04/20/18 23:32	1
Toluene-d8 (Surr)	97		70 - 130				04/20/18 23:32	1
Dibromofluoromethane (Surr)	104		70 - 130				04/20/18 23:32	1

Lab Sample ID: LCS 480-410081/5

Matrix: Water

Analysis Batch: 410081

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
1,1,1,2-Tetrachloroethane	25.0	26.5		ug/L		106	70 - 130
1,1,1-Trichloroethane	25.0	26.4		ug/L		106	70 - 130
1,1,2,2-Tetrachloroethane	25.0	24.9		ug/L		99	70 - 130
1,1,2-Trichloroethane	25.0	24.0		ug/L		96	70 - 130
1,1-Dichloroethane	25.0	26.0		ug/L		104	70 - 130
1,1-Dichloroethene	25.0	26.0		ug/L		104	70 - 130
1,1-Dichloropropene	25.0	25.7		ug/L		103	70 - 130
1,2,3-Trichlorobenzene	25.0	24.6		ug/L		98	70 - 130
1,2,3-Trichloropropane	25.0	25.6		ug/L		102	70 - 130
1,2,4-Trichlorobenzene	25.0	23.8		ug/L		95	70 - 130
1,2,4-Trimethylbenzene	25.0	24.1		ug/L		96	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	23.6		ug/L		94	70 - 130
1,2-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-410081/5

Matrix: Water

Analysis Batch: 410081

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec.
		Result	Qualifier				
1,2-Dichloroethane	25.0	27.8		ug/L		111	70 - 130
1,2-Dichloropropane	25.0	25.8		ug/L		103	70 - 130
1,3,5-Trimethylbenzene	25.0	23.5		ug/L		94	70 - 130
1,3-Dichlorobenzene	25.0	24.9		ug/L		100	70 - 130
1,3-Dichloropropane	25.0	25.4		ug/L		102	70 - 130
1,4-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130
1,4-Dioxane	500	503		ug/L		101	70 - 130
2,2-Dichloropropane	25.0	26.1		ug/L		104	70 - 130
2-Butanone (MEK)	125	259 *		ug/L		207	70 - 130
2-Chlorotoluene	25.0	22.5		ug/L		90	70 - 130
2-Hexanone	125	142		ug/L		113	70 - 130
4-Chlorotoluene	25.0	23.8		ug/L		95	70 - 130
4-Isopropyltoluene	25.0	24.9		ug/L		99	70 - 130
4-Methyl-2-pentanone (MIBK)	125	135		ug/L		108	70 - 130
Acetone	125	175 *		ug/L		140	70 - 130
Benzene	25.0	25.0		ug/L		100	70 - 130
Bromobenzene	25.0	24.9		ug/L		100	70 - 130
Bromoform	25.0	25.7		ug/L		103	70 - 130
Bromomethane	25.0	29.5		ug/L		118	70 - 130
Carbon disulfide	25.0	24.9		ug/L		100	70 - 130
Carbon tetrachloride	25.0	27.4		ug/L		110	70 - 130
Chlorobenzene	25.0	24.9		ug/L		100	70 - 130
Chlorobromomethane	25.0	27.6		ug/L		110	70 - 130
Chlorodibromomethane	25.0	25.8		ug/L		103	70 - 130
Chloroethane	25.0	28.1		ug/L		112	70 - 130
Chloroform	25.0	25.4		ug/L		102	70 - 130
Chloromethane	25.0	22.8		ug/L		91	70 - 130
cis-1,2-Dichloroethene	25.0	26.1		ug/L		104	70 - 130
cis-1,3-Dichloropropene	25.0	25.9		ug/L		104	70 - 130
Dibromomethane	25.0	27.2		ug/L		109	70 - 130
Dichlorobromomethane	25.0	26.1		ug/L		104	70 - 130
Dichlorodifluoromethane	25.0	24.3		ug/L		97	70 - 130
Ethyl ether	25.0	25.8		ug/L		103	70 - 130
Ethylbenzene	25.0	24.6		ug/L		98	70 - 130
Ethylene Dibromide	25.0	26.3		ug/L		105	70 - 130
Hexachlorobutadiene	25.0	27.0		ug/L		108	70 - 130
Isopropyl ether	25.0	24.6		ug/L		98	70 - 130
Isopropylbenzene	25.0	23.0		ug/L		92	70 - 130
Methyl tert-butyl ether	25.0	26.0		ug/L		104	70 - 130
Methylene Chloride	25.0	23.5		ug/L		94	70 - 130
m-Xylene & p-Xylene	25.0	24.4		ug/L		98	70 - 130
Naphthalene	25.0	25.8		ug/L		103	70 - 130
n-Butylbenzene	25.0	24.3		ug/L		97	70 - 130
N-Propylbenzene	25.0	23.0		ug/L		92	70 - 130
o-Xylene	25.0	24.7		ug/L		99	70 - 130
sec-Butylbenzene	25.0	23.1		ug/L		92	70 - 130
Styrene	25.0	25.0		ug/L		100	70 - 130
Tert-amyl methyl ether	25.0	27.2		ug/L		109	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-410081/5

Matrix: Water

Analysis Batch: 410081

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS		Unit	D	%Rec	Limits	5
	Added	Result	Qualifier					
Tert-butyl ethyl ether	25.0	26.4		ug/L		106	70 - 130	6
tert-Butylbenzene	25.0	24.1		ug/L		97	70 - 130	7
Tetrachloroethene	25.0	28.3		ug/L		113	70 - 130	8
Tetrahydrofuran	50.0	71.5 *		ug/L		143	70 - 130	9
Toluene	25.0	24.8		ug/L		99	70 - 130	10
trans-1,2-Dichloroethene	25.0	24.2		ug/L		97	70 - 130	11
trans-1,3-Dichloropropene	25.0	24.3		ug/L		97	70 - 130	12
Trichloroethene	25.0	26.5		ug/L		106	70 - 130	13
Trichlorofluoromethane	25.0	28.5		ug/L		114	70 - 130	14
Vinyl chloride	25.0	23.8		ug/L		95	70 - 130	15
Surrogate		LCS	LCS	Limits				
		%Recovery	Qualifier					
1,2-Dichloroethane-d4 (Surr)	113			70 - 130				
4-Bromofluorobenzene (Surr)	103			70 - 130				
Toluene-d8 (Surr)	96			70 - 130				
Dibromofluoromethane (Surr)	105			70 - 130				

Lab Sample ID: LCSD 480-410081/6

Matrix: Water

Analysis Batch: 410081

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD		Unit	D	%Rec	Limits	RPD	10
	Added	Result	Qualifier						
1,1,1,2-Tetrachloroethane	25.0	27.4		ug/L		110	70 - 130	3	20
1,1,1-Trichloroethane	25.0	27.1		ug/L		108	70 - 130	3	20
1,1,2,2-Tetrachloroethane	25.0	24.2		ug/L		97	70 - 130	3	20
1,1,2-Trichloroethane	25.0	24.9		ug/L		100	70 - 130	4	20
1,1-Dichloroethane	25.0	26.3		ug/L		105	70 - 130	1	20
1,1-Dichloroethene	25.0	25.7		ug/L		103	70 - 130	1	20
1,1-Dichloropropene	25.0	26.4		ug/L		106	70 - 130	3	20
1,2,3-Trichlorobenzene	25.0	24.4		ug/L		98	70 - 130	1	20
1,2,3-Trichloropropane	25.0	26.4		ug/L		106	70 - 130	3	20
1,2,4-Trichlorobenzene	25.0	24.4		ug/L		98	70 - 130	3	20
1,2,4-Trimethylbenzene	25.0	24.2		ug/L		97	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	25.0	25.4		ug/L		102	70 - 130	7	20
1,2-Dichlorobenzene	25.0	25.0		ug/L		100	70 - 130	1	20
1,2-Dichloroethane	25.0	27.5		ug/L		110	70 - 130	1	20
1,2-Dichloropropane	25.0	25.1		ug/L		101	70 - 130	3	20
1,3,5-Trimethylbenzene	25.0	23.8		ug/L		95	70 - 130	1	20
1,3-Dichlorobenzene	25.0	26.1		ug/L		104	70 - 130	4	20
1,3-Dichloropropane	25.0	25.4		ug/L		102	70 - 130	0	20
1,4-Dichlorobenzene	25.0	25.0		ug/L		100	70 - 130	0	20
1,4-Dioxane	500	676 *		ug/L		135	70 - 130	29	20
2,2-Dichloropropane	25.0	25.7		ug/L		103	70 - 130	2	20
2-Butanone (MEK)	125	255 *		ug/L		204	70 - 130	1	20
2-Chlorotoluene	25.0	23.2		ug/L		93	70 - 130	3	20
2-Hexanone	125	142		ug/L		113	70 - 130	0	20
4-Chlorotoluene	25.0	24.4		ug/L		98	70 - 130	3	20
4-Isopropyltoluene	25.0	25.3		ug/L		101	70 - 130	2	20

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-410081/6

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analysis Batch: 410081

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD	Limit
	Added	Result	Qualifier							
4-Methyl-2-pentanone (MIBK)	125	135		ug/L		108	70 - 130	0	20	
Acetone	125	173	*	ug/L		139	70 - 130	1	20	
Benzene	25.0	25.5		ug/L		102	70 - 130	2	20	
Bromobenzene	25.0	24.1		ug/L		96	70 - 130	3	20	
Bromoform	25.0	25.9		ug/L		104	70 - 130	1	20	
Bromomethane	25.0	29.7		ug/L		119	70 - 130	0	20	
Carbon disulfide	25.0	24.8		ug/L		99	70 - 130	0	20	
Carbon tetrachloride	25.0	27.4		ug/L		109	70 - 130	0	20	
Chlorobenzene	25.0	25.2		ug/L		101	70 - 130	1	20	
Chlorobromomethane	25.0	26.3		ug/L		105	70 - 130	5	20	
Chlorodibromomethane	25.0	26.1		ug/L		104	70 - 130	1	20	
Chloroethane	25.0	28.3		ug/L		113	70 - 130	1	20	
Chloroform	25.0	25.4		ug/L		102	70 - 130	0	20	
Chloromethane	25.0	21.8		ug/L		87	70 - 130	5	20	
cis-1,2-Dichloroethene	25.0	26.7		ug/L		107	70 - 130	2	20	
cis-1,3-Dichloropropene	25.0	25.5		ug/L		102	70 - 130	2	20	
Dibromomethane	25.0	26.4		ug/L		106	70 - 130	3	20	
Dichlorobromomethane	25.0	26.6		ug/L		106	70 - 130	2	20	
Dichlorodifluoromethane	25.0	24.2		ug/L		97	70 - 130	1	20	
Ethyl ether	25.0	26.1		ug/L		104	70 - 130	1	20	
Ethylbenzene	25.0	25.3		ug/L		101	70 - 130	3	20	
Ethylene Dibromide	25.0	26.1		ug/L		104	70 - 130	1	20	
Hexachlorobutadiene	25.0	26.4		ug/L		106	70 - 130	2	20	
Isopropyl ether	25.0	24.3		ug/L		97	70 - 130	1	20	
Isopropylbenzene	25.0	23.6		ug/L		94	70 - 130	3	20	
Methyl tert-butyl ether	25.0	25.4		ug/L		102	70 - 130	2	20	
Methylene Chloride	25.0	23.2		ug/L		93	70 - 130	1	20	
m-Xylene & p-Xylene	25.0	25.5		ug/L		102	70 - 130	4	20	
Naphthalene	25.0	24.7		ug/L		99	70 - 130	4	20	
n-Butylbenzene	25.0	25.1		ug/L		100	70 - 130	3	20	
N-Propylbenzene	25.0	23.9		ug/L		95	70 - 130	4	20	
o-Xylene	25.0	25.4		ug/L		102	70 - 130	3	20	
sec-Butylbenzene	25.0	24.1		ug/L		96	70 - 130	4	20	
Styrene	25.0	26.0		ug/L		104	70 - 130	4	20	
Tert-amyl methyl ether	25.0	27.3		ug/L		109	70 - 130	0	20	
Tert-butyl ethyl ether	25.0	25.8		ug/L		103	70 - 130	2	20	
tert-Butylbenzene	25.0	26.2		ug/L		105	70 - 130	8	20	
Tetrachloroethene	25.0	29.9		ug/L		120	70 - 130	6	20	
Tetrahydrofuran	50.0	70.2	*	ug/L		140	70 - 130	2	20	
Toluene	25.0	25.1		ug/L		100	70 - 130	1	20	
trans-1,2-Dichloroethene	25.0	25.0		ug/L		100	70 - 130	3	20	
trans-1,3-Dichloropropene	25.0	25.3		ug/L		101	70 - 130	4	20	
Trichloroethene	25.0	25.9		ug/L		104	70 - 130	2	20	
Trichlorofluoromethane	25.0	27.9		ug/L		112	70 - 130	2	20	
Vinyl chloride	25.0	23.4		ug/L		93	70 - 130	2	20	

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)			104		70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-410081/6

Matrix: Water

Analysis Batch: 410081

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
Toluene-d8 (Surr)	95		70 - 130
Dibromofluoromethane (Surr)	101		70 - 130

Lab Sample ID: MB 480-410111/8

Matrix: Water

Analysis Batch: 410111

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/21/18 12:42	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/21/18 12:42	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/21/18 12:42	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/21/18 12:42	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/21/18 12:42	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/21/18 12:42	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/21/18 12:42	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/21/18 12:42	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/21/18 12:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/21/18 12:42	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/21/18 12:42	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/21/18 12:42	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/21/18 12:42	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/21/18 12:42	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/21/18 12:42	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/21/18 12:42	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/21/18 12:42	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/21/18 12:42	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/21/18 12:42	1
1,4-Dioxane	ND		50	9.3	ug/L			04/21/18 12:42	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/21/18 12:42	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/21/18 12:42	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/21/18 12:42	1
2-Hexanone	ND		10	1.2	ug/L			04/21/18 12:42	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/21/18 12:42	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/21/18 12:42	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/21/18 12:42	1
Acetone	ND		50	3.0	ug/L			04/21/18 12:42	1
Benzene	ND		1.0	0.41	ug/L			04/21/18 12:42	1
Bromobenzene	ND		1.0	0.80	ug/L			04/21/18 12:42	1
Bromoform	ND		1.0	0.26	ug/L			04/21/18 12:42	1
Bromomethane	ND		2.0	0.69	ug/L			04/21/18 12:42	1
Carbon disulfide	ND		10	0.19	ug/L			04/21/18 12:42	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/21/18 12:42	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/21/18 12:42	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/21/18 12:42	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/21/18 12:42	1
Chloroethane	ND		2.0	0.32	ug/L			04/21/18 12:42	1
Chloroform	ND		1.0	0.34	ug/L			04/21/18 12:42	1

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-410111/8

Matrix: Water

Analysis Batch: 410111

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Chloromethane	ND				2.0	0.35	ug/L			04/21/18 12:42	1
cis-1,2-Dichloroethene	ND				1.0	0.81	ug/L			04/21/18 12:42	1
cis-1,3-Dichloropropene	ND				0.40	0.36	ug/L			04/21/18 12:42	1
Dibromomethane	ND				1.0	0.41	ug/L			04/21/18 12:42	1
Dichlorobromomethane	ND				0.50	0.39	ug/L			04/21/18 12:42	1
Dichlorodifluoromethane	ND				1.0	0.68	ug/L			04/21/18 12:42	1
Ethyl ether	ND				1.0	0.72	ug/L			04/21/18 12:42	1
Ethylbenzene	ND				1.0	0.74	ug/L			04/21/18 12:42	1
Ethylene Dibromide	ND				1.0	0.73	ug/L			04/21/18 12:42	1
Hexachlorobutadiene	ND				0.40	0.28	ug/L			04/21/18 12:42	1
Isopropyl ether	ND				10	0.59	ug/L			04/21/18 12:42	1
Isopropylbenzene	ND				1.0	0.79	ug/L			04/21/18 12:42	1
Methyl tert-butyl ether	ND				1.0	0.16	ug/L			04/21/18 12:42	1
Methylene Chloride	ND				1.0	0.44	ug/L			04/21/18 12:42	1
m-Xylene & p-Xylene	ND				2.0	0.66	ug/L			04/21/18 12:42	1
Naphthalene	ND				5.0	0.43	ug/L			04/21/18 12:42	1
n-Butylbenzene	ND				1.0	0.64	ug/L			04/21/18 12:42	1
N-Propylbenzene	ND				1.0	0.69	ug/L			04/21/18 12:42	1
o-Xylene	ND				1.0	0.76	ug/L			04/21/18 12:42	1
sec-Butylbenzene	ND				1.0	0.75	ug/L			04/21/18 12:42	1
Styrene	ND				1.0	0.73	ug/L			04/21/18 12:42	1
Tert-amyl methyl ether	ND				5.0	0.27	ug/L			04/21/18 12:42	1
Tert-butyl ethyl ether	ND				5.0	0.29	ug/L			04/21/18 12:42	1
tert-Butylbenzene	ND				1.0	0.81	ug/L			04/21/18 12:42	1
Tetrachloroethene	ND				1.0	0.36	ug/L			04/21/18 12:42	1
Tetrahydrofuran	ND				10	1.3	ug/L			04/21/18 12:42	1
Toluene	ND				1.0	0.51	ug/L			04/21/18 12:42	1
trans-1,2-Dichloroethene	ND				1.0	0.90	ug/L			04/21/18 12:42	1
trans-1,3-Dichloropropene	ND				0.40	0.37	ug/L			04/21/18 12:42	1
Trichloroethene	ND				1.0	0.46	ug/L			04/21/18 12:42	1
Trichlorofluoromethane	ND				1.0	0.88	ug/L			04/21/18 12:42	1
Vinyl chloride	ND				1.0	0.90	ug/L			04/21/18 12:42	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		70 - 130		04/21/18 12:42	1
4-Bromofluorobenzene (Surr)	98		70 - 130		04/21/18 12:42	1
Toluene-d8 (Surr)	98		70 - 130		04/21/18 12:42	1
Dibromofluoromethane (Surr)	106		70 - 130		04/21/18 12:42	1

Lab Sample ID: LCS 480-410111/5

Matrix: Water

Analysis Batch: 410111

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS			%Rec.		
	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1,2-Tetrachloroethane	25.0	24.7		ug/L	99	70 - 130	
1,1,1-Trichloroethane	25.0	26.1		ug/L	104	70 - 130	
1,1,2,2-Tetrachloroethane	25.0	23.5		ug/L	94	70 - 130	
1,1,2-Trichloroethane	25.0	23.4		ug/L	94	70 - 130	

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
 Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-410111/5

Matrix: Water

Analysis Batch: 410111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec.
		Result	Qualifier				
1,1-Dichloroethane	25.0	25.3		ug/L		101	70 - 130
1,1-Dichloroethene	25.0	24.3		ug/L		97	70 - 130
1,1-Dichloropropene	25.0	24.7		ug/L		99	70 - 130
1,2,3-Trichlorobenzene	25.0	23.0		ug/L		92	70 - 130
1,2,3-Trichloropropane	25.0	26.1		ug/L		104	70 - 130
1,2,4-Trichlorobenzene	25.0	21.8		ug/L		87	70 - 130
1,2,4-Trimethylbenzene	25.0	22.4		ug/L		89	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	25.3		ug/L		101	70 - 130
1,2-Dichlorobenzene	25.0	23.3		ug/L		93	70 - 130
1,2-Dichloroethane	25.0	27.0		ug/L		108	70 - 130
1,2-Dichloropropene	25.0	24.6		ug/L		98	70 - 130
1,3,5-Trimethylbenzene	25.0	21.7		ug/L		87	70 - 130
1,3-Dichlorobenzene	25.0	23.0		ug/L		92	70 - 130
1,3-Dichloropropane	25.0	23.2		ug/L		93	70 - 130
1,4-Dichlorobenzene	25.0	23.2		ug/L		93	70 - 130
1,4-Dioxane	500	505		ug/L		101	70 - 130
2,2-Dichloropropene	25.0	24.3		ug/L		97	70 - 130
2-Butanone (MEK)	125	255	*	ug/L		204	70 - 130
2-Chlorotoluene	25.0	21.4		ug/L		86	70 - 130
2-Hexanone	125	136		ug/L		108	70 - 130
4-Chlorotoluene	25.0	21.9		ug/L		88	70 - 130
4-Isopropyltoluene	25.0	22.8		ug/L		91	70 - 130
4-Methyl-2-pentanone (MIBK)	125	130		ug/L		104	70 - 130
Acetone	125	179	*	ug/L		143	70 - 130
Benzene	25.0	24.6		ug/L		98	70 - 130
Bromobenzene	25.0	22.5		ug/L		90	70 - 130
Bromoform	25.0	23.3		ug/L		93	70 - 130
Bromomethane	25.0	28.4		ug/L		114	70 - 130
Carbon disulfide	25.0	23.5		ug/L		94	70 - 130
Carbon tetrachloride	25.0	26.3		ug/L		105	70 - 130
Chlorobenzene	25.0	23.0		ug/L		92	70 - 130
Chlorobromomethane	25.0	27.3		ug/L		109	70 - 130
Chlorodibromomethane	25.0	24.4		ug/L		97	70 - 130
Chloroethane	25.0	28.4		ug/L		113	70 - 130
Chloroform	25.0	25.1		ug/L		100	70 - 130
Chloromethane	25.0	21.4		ug/L		86	70 - 130
cis-1,2-Dichloroethene	25.0	25.6		ug/L		102	70 - 130
cis-1,3-Dichloropropene	25.0	24.7		ug/L		99	70 - 130
Dibromomethane	25.0	26.4		ug/L		105	70 - 130
Dichlorobromomethane	25.0	25.5		ug/L		102	70 - 130
Dichlorodifluoromethane	25.0	22.8		ug/L		91	70 - 130
Ethyl ether	25.0	25.7		ug/L		103	70 - 130
Ethylbenzene	25.0	22.7		ug/L		91	70 - 130
Ethylene Dibromide	25.0	24.3		ug/L		97	70 - 130
Hexachlorobutadiene	25.0	23.9		ug/L		95	70 - 130
Isopropyl ether	25.0	22.6		ug/L		90	70 - 130
Isopropylbenzene	25.0	21.1		ug/L		85	70 - 130
Methyl tert-butyl ether	25.0	25.2		ug/L		101	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-410111/5

Matrix: Water

Analysis Batch: 410111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS		Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
Methylene Chloride	25.0	22.6		ug/L		91	70 - 130
m-Xylene & p-Xylene	25.0	22.4		ug/L		90	70 - 130
Naphthalene	25.0	23.4		ug/L		94	70 - 130
n-Butylbenzene	25.0	22.5		ug/L		90	70 - 130
N-Propylbenzene	25.0	21.6		ug/L		86	70 - 130
o-Xylene	25.0	23.0		ug/L		92	70 - 130
sec-Butylbenzene	25.0	21.6		ug/L		86	70 - 130
Styrene	25.0	23.2		ug/L		93	70 - 130
Tert-amyl methyl ether	25.0	24.9		ug/L		100	70 - 130
Tert-butyl ethyl ether	25.0	24.0		ug/L		96	70 - 130
tert-Butylbenzene	25.0	22.3		ug/L		89	70 - 130
Tetrachloroethene	25.0	26.7		ug/L		107	70 - 130
Tetrahydrofuran	50.0	69.6 *		ug/L		139	70 - 130
Toluene	25.0	22.9		ug/L		92	70 - 130
trans-1,2-Dichloroethene	25.0	23.7		ug/L		95	70 - 130
trans-1,3-Dichloropropene	25.0	22.9		ug/L		92	70 - 130
Trichloroethene	25.0	25.4		ug/L		102	70 - 130
Trichlorofluoromethane	25.0	28.4		ug/L		114	70 - 130
Vinyl chloride	25.0	23.9		ug/L		96	70 - 130

LCS LCS

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	117		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Toluene-d8 (Surr)	97		70 - 130
Dibromofluoromethane (Surr)	113		70 - 130

Lab Sample ID: LCSD 480-410111/6

Matrix: Water

Analysis Batch: 410111

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD		Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Added	Result	Qualifier						
1,1,1,2-Tetrachloroethane	25.0	26.3		ug/L		105	70 - 130	6	20
1,1,1-Trichloroethane	25.0	26.3		ug/L		105	70 - 130	1	20
1,1,2,2-Tetrachloroethane	25.0	24.2		ug/L		97	70 - 130	3	20
1,1,2-Trichloroethane	25.0	23.6		ug/L		94	70 - 130	1	20
1,1-Dichloroethane	25.0	25.7		ug/L		103	70 - 130	2	20
1,1-Dichloroethene	25.0	24.7		ug/L		99	70 - 130	2	20
1,1-Dichloropropene	25.0	25.9		ug/L		103	70 - 130	5	20
1,2,3-Trichlorobenzene	25.0	23.4		ug/L		94	70 - 130	1	20
1,2,3-Trichloropropane	25.0	26.1		ug/L		105	70 - 130	0	20
1,2,4-Trichlorobenzene	25.0	22.8		ug/L		91	70 - 130	4	20
1,2,4-Trimethylbenzene	25.0	23.5		ug/L		94	70 - 130	5	20
1,2-Dibromo-3-Chloropropane	25.0	25.2		ug/L		101	70 - 130	1	20
1,2-Dichlorobenzene	25.0	23.6		ug/L		95	70 - 130	1	20
1,2-Dichloroethane	25.0	26.9		ug/L		108	70 - 130	0	20
1,2-Dichloropropane	25.0	26.2		ug/L		105	70 - 130	6	20
1,3,5-Trimethylbenzene	25.0	22.9		ug/L		91	70 - 130	5	20
1,3-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130	5	20

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-410111/6

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analysis Batch: 410111

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD	Limit
	Added	Result	Qualifier							
1,3-Dichloropropane	25.0	24.4		ug/L		98	70 - 130	5	20	
1,4-Dichlorobenzene	25.0	23.4		ug/L		94	70 - 130	1	20	
1,4-Dioxane	500	660	*	ug/L		132	70 - 130	27	20	
2,2-Dichloropropane	25.0	25.6		ug/L		102	70 - 130	5	20	
2-Butanone (MEK)	125	258	*	ug/L		206	70 - 130	1	20	
2-Chlorotoluene	25.0	21.9		ug/L		88	70 - 130	2	20	
2-Hexanone	125	137		ug/L		110	70 - 130	1	20	
4-Chlorotoluene	25.0	22.9		ug/L		92	70 - 130	4	20	
4-Isopropyltoluene	25.0	24.4		ug/L		97	70 - 130	7	20	
4-Methyl-2-pentanone (MIBK)	125	133		ug/L		106	70 - 130	2	20	
Acetone	125	180	*	ug/L		144	70 - 130	1	20	
Benzene	25.0	25.3		ug/L		101	70 - 130	3	20	
Bromobenzene	25.0	23.3		ug/L		93	70 - 130	3	20	
Bromoform	25.0	25.2		ug/L		101	70 - 130	8	20	
Bromomethane	25.0	30.0		ug/L		120	70 - 130	5	20	
Carbon disulfide	25.0	24.3		ug/L		97	70 - 130	4	20	
Carbon tetrachloride	25.0	27.7		ug/L		111	70 - 130	5	20	
Chlorobenzene	25.0	24.1		ug/L		97	70 - 130	5	20	
Chlorobromomethane	25.0	29.0		ug/L		116	70 - 130	6	20	
Chlorodibromomethane	25.0	25.4		ug/L		102	70 - 130	4	20	
Chloroethane	25.0	29.5		ug/L		118	70 - 130	4	20	
Chloroform	25.0	25.4		ug/L		102	70 - 130	1	20	
Chloromethane	25.0	22.4		ug/L		90	70 - 130	5	20	
cis-1,2-Dichloroethene	25.0	26.8		ug/L		107	70 - 130	5	20	
cis-1,3-Dichloropropene	25.0	26.2		ug/L		105	70 - 130	6	20	
Dibromomethane	25.0	27.8		ug/L		111	70 - 130	5	20	
Dichlorobromomethane	25.0	26.5		ug/L		106	70 - 130	4	20	
Dichlorodifluoromethane	25.0	23.4		ug/L		94	70 - 130	3	20	
Ethyl ether	25.0	26.5		ug/L		106	70 - 130	3	20	
Ethylbenzene	25.0	24.0		ug/L		96	70 - 130	5	20	
Ethylene Dibromide	25.0	25.4		ug/L		101	70 - 130	4	20	
Hexachlorobutadiene	25.0	25.3		ug/L		101	70 - 130	6	20	
Isopropyl ether	25.0	23.6		ug/L		94	70 - 130	4	20	
Isopropylbenzene	25.0	22.8		ug/L		91	70 - 130	8	20	
Methyl tert-butyl ether	25.0	25.9		ug/L		104	70 - 130	3	20	
Methylene Chloride	25.0	22.7		ug/L		91	70 - 130	0	20	
m-Xylene & p-Xylene	25.0	24.1		ug/L		96	70 - 130	7	20	
Naphthalene	25.0	23.8		ug/L		95	70 - 130	2	20	
n-Butylbenzene	25.0	23.7		ug/L		95	70 - 130	5	20	
N-Propylbenzene	25.0	22.4		ug/L		89	70 - 130	4	20	
o-Xylene	25.0	23.4		ug/L		94	70 - 130	2	20	
sec-Butylbenzene	25.0	23.4		ug/L		94	70 - 130	8	20	
Styrene	25.0	24.9		ug/L		100	70 - 130	7	20	
Tert-amyl methyl ether	25.0	25.6		ug/L		103	70 - 130	3	20	
Tert-butyl ethyl ether	25.0	24.8		ug/L		99	70 - 130	3	20	
tert-Butylbenzene	25.0	24.2		ug/L		97	70 - 130	8	20	
Tetrachloroethene	25.0	27.8		ug/L		111	70 - 130	4	20	
Tetrahydrofuran	50.0	70.5	*	ug/L		141	70 - 130	1	20	

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-410111/6

Matrix: Water

Analysis Batch: 410111

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Added	Result	Qualifier						
Toluene	25.0	24.1		ug/L		96	70 - 130	5	20
trans-1,2-Dichloroethene	25.0	24.9		ug/L		100	70 - 130	5	20
trans-1,3-Dichloropropene	25.0	24.6		ug/L		98	70 - 130	7	20
Trichloroethene	25.0	26.3		ug/L		105	70 - 130	3	20
Trichlorofluoromethane	25.0	29.5		ug/L		118	70 - 130	4	20
Vinyl chloride	25.0	24.0		ug/L		96	70 - 130	0	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	112		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130
Toluene-d8 (Surr)	92		70 - 130
Dibromofluoromethane (Surr)	107		70 - 130

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-408777/1-A

Matrix: Water

Analysis Batch: 409180

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 408777

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chromium	ND		5.0	1.0	ug/L		04/14/18 09:34	04/16/18 17:21	1

Lab Sample ID: LCS 480-408777/2-A

Matrix: Water

Analysis Batch: 409180

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 408777

Analyte	Spike	LCs	LCs	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Chromium	200	198		ug/L		99	80 - 120

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 480-408798/27

Matrix: Water

Analysis Batch: 408798

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chromium, hexavalent	ND		0.010	0.0050	mg/L		04/13/18 06:39		1

Lab Sample ID: MB 480-408798/3

Matrix: Water

Analysis Batch: 408798

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chromium, hexavalent	ND		0.010	0.0050	mg/L		04/13/18 06:39		1

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS 480-408798/28

Matrix: Water

Analysis Batch: 408798

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
Chromium, hexavalent	0.200	0.202		mg/L		101	80 - 120

Lab Sample ID: LCS 480-408798/4

Matrix: Water

Analysis Batch: 408798

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
Chromium, hexavalent	0.200	0.211		mg/L		105	80 - 120

Lab Sample ID: LCSD 480-408798/29

Matrix: Water

Analysis Batch: 408798

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Added	Result	Qualifier						
Chromium, hexavalent	0.200	0.205		mg/L		102	80 - 120	1	20

Lab Sample ID: LCSD 480-408798/5

Matrix: Water

Analysis Batch: 408798

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Added	Result	Qualifier						
Chromium, hexavalent	0.200	0.208		mg/L		104	80 - 120	1	20

Lab Sample ID: 480-134067-3 MS

Matrix: Water

Analysis Batch: 408798

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Chromium, hexavalent	0.018		0.200	0.221		mg/L		102	75 - 125

Lab Sample ID: 480-134067-6 MS

Matrix: Water

Analysis Batch: 408798

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Chromium, hexavalent	0.016		0.200	0.213		mg/L		99	75 - 125

Lab Sample ID: 480-134067-1 DU

Matrix: Water

Analysis Batch: 408798

Analyte	Sample	Sample	Spike	DU	DU	Unit	D	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier				
Chromium, hexavalent	0.55		0.200	0.565		mg/L		3	20

TestAmerica Buffalo

QC Association Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

GC/MS VOA

Analysis Batch: 410081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-134067-1	C041218-PP3	Total/NA	Water	8260C	5
480-134067-3	C041218-PP4B	Total/NA	Water	8260C	2
480-134067-6	C041218-OSW3A	Total/NA	Water	8260C	3
480-134067-7	C041218-OSW2B	Total/NA	Water	8260C	4
480-134067-9	C041218-Trip Blank	Total/NA	Water	8260C	6
MB 480-410081/8	Method Blank	Total/NA	Water	8260C	7
LCS 480-410081/5	Lab Control Sample	Total/NA	Water	8260C	8
LCSD 480-410081/6	Lab Control Sample Dup	Total/NA	Water	8260C	9

Analysis Batch: 410111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-134067-2	C041218-PP4A	Total/NA	Water	8260C	10
480-134067-4	C041218-OSW3B	Total/NA	Water	8260C	11
480-134067-5	C041218-CLW16B	Total/NA	Water	8260C	12
480-134067-8	C041218-CLW16BDUP	Total/NA	Water	8260C	13
MB 480-410111/8	Method Blank	Total/NA	Water	8260C	14
LCS 480-410111/5	Lab Control Sample	Total/NA	Water	8260C	15
LCSD 480-410111/6	Lab Control Sample Dup	Total/NA	Water	8260C	9

Metals

Prep Batch: 408777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-134067-1	C041218-PP3	Total/NA	Water	3005A	
480-134067-2	C041218-PP4A	Total/NA	Water	3005A	
480-134067-3	C041218-PP4B	Total/NA	Water	3005A	
480-134067-4	C041218-OSW3B	Total/NA	Water	3005A	
480-134067-5	C041218-CLW16B	Total/NA	Water	3005A	
480-134067-6	C041218-OSW3A	Total/NA	Water	3005A	
480-134067-7	C041218-OSW2B	Total/NA	Water	3005A	
480-134067-8	C041218-CLW16BDUP	Total/NA	Water	3005A	
MB 480-408777/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-408777/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 409180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-134067-1	C041218-PP3	Total/NA	Water	6010	408777
480-134067-2	C041218-PP4A	Total/NA	Water	6010	408777
480-134067-3	C041218-PP4B	Total/NA	Water	6010	408777
480-134067-4	C041218-OSW3B	Total/NA	Water	6010	408777
480-134067-5	C041218-CLW16B	Total/NA	Water	6010	408777
480-134067-6	C041218-OSW3A	Total/NA	Water	6010	408777
480-134067-7	C041218-OSW2B	Total/NA	Water	6010	408777
480-134067-8	C041218-CLW16BDUP	Total/NA	Water	6010	408777
MB 480-408777/1-A	Method Blank	Total/NA	Water	6010	408777
LCS 480-408777/2-A	Lab Control Sample	Total/NA	Water	6010	408777

QC Association Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

General Chemistry

Analysis Batch: 408798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-134067-1	C041218-PP3	Total/NA	Water	7196A	1
480-134067-2	C041218-PP4A	Total/NA	Water	7196A	2
480-134067-3	C041218-PP4B	Total/NA	Water	7196A	3
480-134067-4	C041218-OSW3B	Total/NA	Water	7196A	4
480-134067-5	C041218-CLW16B	Total/NA	Water	7196A	5
480-134067-6	C041218-OSW3A	Total/NA	Water	7196A	6
480-134067-7	C041218-OSW2B	Total/NA	Water	7196A	7
480-134067-8	C041218-CLW16BDUP	Total/NA	Water	7196A	8
MB 480-408798/27	Method Blank	Total/NA	Water	7196A	9
MB 480-408798/3	Method Blank	Total/NA	Water	7196A	10
LCS 480-408798/28	Lab Control Sample	Total/NA	Water	7196A	11
LCS 480-408798/4	Lab Control Sample	Total/NA	Water	7196A	12
LCSD 480-408798/29	Lab Control Sample Dup	Total/NA	Water	7196A	13
LCSD 480-408798/5	Lab Control Sample Dup	Total/NA	Water	7196A	14
480-134067-3 MS	C041218-PP4B	Total/NA	Water	7196A	15
480-134067-6 MS	C041218-OSW3A	Total/NA	Water	7196A	
480-134067-1 DU	C041218-PP3	Total/NA	Water	7196A	

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-PP3

Date Collected: 04/12/18 11:00

Date Received: 04/13/18 01:15

Lab Sample ID: 480-134067-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	410081	04/21/18 00:07	AEM	TAL BUF
Total/NA	Prep	3005A			408777	04/14/18 09:34	JAK	TAL BUF
Total/NA	Analysis	6010		1	409180	04/16/18 17:28	LMH	TAL BUF
Total/NA	Analysis	7196A		2.5	408798	04/13/18 06:39	BEV	TAL BUF

Client Sample ID: C041218-PP4A

Date Collected: 04/12/18 12:05

Date Received: 04/13/18 01:15

Lab Sample ID: 480-134067-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	410111	04/21/18 14:07	RRS	TAL BUF
Total/NA	Prep	3005A			408777	04/14/18 09:34	JAK	TAL BUF
Total/NA	Analysis	6010		1	409180	04/16/18 17:31	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408798	04/13/18 06:39	BEV	TAL BUF

Client Sample ID: C041218-PP4B

Date Collected: 04/12/18 13:50

Date Received: 04/13/18 01:15

Lab Sample ID: 480-134067-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	410081	04/21/18 02:52	AEM	TAL BUF
Total/NA	Prep	3005A			408777	04/14/18 09:34	JAK	TAL BUF
Total/NA	Analysis	6010		1	409180	04/16/18 17:35	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408798	04/13/18 06:39	BEV	TAL BUF

Client Sample ID: C041218-OSW3B

Date Collected: 04/12/18 15:40

Date Received: 04/13/18 01:15

Lab Sample ID: 480-134067-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	410111	04/21/18 14:30	RRS	TAL BUF
Total/NA	Prep	3005A			408777	04/14/18 09:34	JAK	TAL BUF
Total/NA	Analysis	6010		1	409180	04/16/18 17:39	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408798	04/13/18 06:39	BEV	TAL BUF

Client Sample ID: C041218-CLW16B

Date Collected: 04/12/18 11:45

Date Received: 04/13/18 01:15

Lab Sample ID: 480-134067-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		125	410111	04/21/18 14:54	RRS	TAL BUF
Total/NA	Prep	3005A			408777	04/14/18 09:34	JAK	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Client Sample ID: C041218-CLW16B

Date Collected: 04/12/18 11:45
Date Received: 04/13/18 01:15

Lab Sample ID: 480-134067-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010		1	409180	04/16/18 17:53	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408798	04/13/18 06:39	BEV	TAL BUF

Client Sample ID: C041218-OSW3A

Date Collected: 04/12/18 13:23
Date Received: 04/13/18 01:15

Lab Sample ID: 480-134067-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	410081	04/21/18 04:03	AEM	TAL BUF
Total/NA	Prep	3005A			408777	04/14/18 09:34	JAK	TAL BUF
Total/NA	Analysis	6010		1	409180	04/16/18 17:57	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408798	04/13/18 06:39	BEV	TAL BUF

Client Sample ID: C041218-OSW2B

Date Collected: 04/12/18 15:27
Date Received: 04/13/18 01:15

Lab Sample ID: 480-134067-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		40	410081	04/21/18 04:27	AEM	TAL BUF
Total/NA	Prep	3005A			408777	04/14/18 09:34	JAK	TAL BUF
Total/NA	Analysis	6010		1	409180	04/16/18 18:01	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408798	04/13/18 06:39	BEV	TAL BUF

Client Sample ID: C041218-CLW16BDUP

Date Collected: 04/12/18 11:45
Date Received: 04/13/18 01:15

Lab Sample ID: 480-134067-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		125	410111	04/21/18 15:17	RRS	TAL BUF
Total/NA	Prep	3005A			408777	04/14/18 09:34	JAK	TAL BUF
Total/NA	Analysis	6010		1	409180	04/16/18 18:04	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408798	04/13/18 06:39	BEV	TAL BUF

Client Sample ID: C041218-Trip Blank

Date Collected: 04/12/18 00:00
Date Received: 04/13/18 01:15

Lab Sample ID: 480-134067-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	410081	04/21/18 00:54	AEM	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TestAmerica Buffalo

Accreditation/Certification Summary

Client: Honeywell International Inc
 Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Massachusetts	State Program	1	M-NY044	06-30-18
The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:				
Analysis Method	Prep Method	Matrix	Analyte	
6010	3005A	Water	Chromium	
7196A		Water	Chromium, hexavalent	
8260C		Water	1,1,1,2-Tetrachloroethane	
8260C		Water	1,1,1-Trichloroethane	
8260C		Water	1,1,2,2-Tetrachloroethane	
8260C		Water	1,1,2-Trichloroethane	
8260C		Water	1,1-Dichloroethane	
8260C		Water	1,1-Dichloroethene	
8260C		Water	1,1-Dichloropropene	
8260C		Water	1,2,3-Trichlorobenzene	
8260C		Water	1,2,3-Trichloropropane	
8260C		Water	1,2,4-Trichlorobenzene	
8260C		Water	1,2,4-Trimethylbenzene	
8260C		Water	1,2-Dibromo-3-Chloropropane	
8260C		Water	1,2-Dichlorobenzene	
8260C		Water	1,2-Dichloroethane	
8260C		Water	1,2-Dichloropropane	
8260C		Water	1,3,5-Trimethylbenzene	
8260C		Water	1,3-Dichlorobenzene	
8260C		Water	1,3-Dichloropropane	
8260C		Water	1,4-Dichlorobenzene	
8260C		Water	1,4-Dioxane	
8260C		Water	2,2-Dichloropropane	
8260C		Water	2-Butanone (MEK)	
8260C		Water	2-Chlorotoluene	
8260C		Water	2-Hexanone	
8260C		Water	4-Chlorotoluene	
8260C		Water	4-Isopropyltoluene	
8260C		Water	4-Methyl-2-pentanone (MIBK)	
8260C		Water	Acetone	
8260C		Water	Benzene	
8260C		Water	Bromobenzene	
8260C		Water	Bromoform	
8260C		Water	Bromomethane	
8260C		Water	Carbon disulfide	
8260C		Water	Carbon tetrachloride	
8260C		Water	Chlorobenzene	
8260C		Water	Chlorobromomethane	
8260C		Water	Chlorodibromomethane	
8260C		Water	Chloroethane	
8260C		Water	Chloroform	
8260C		Water	Chloromethane	
8260C		Water	cis-1,2-Dichloroethene	
8260C		Water	cis-1,3-Dichloropropene	
8260C		Water	Dibromomethane	
8260C		Water	Dichlorobromomethane	

Accreditation/Certification Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Laboratory: TestAmerica Buffalo (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Massachusetts	State Program	1	M-NY044	06-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	Dichlorodifluoromethane
8260C		Water	Ethyl ether
8260C		Water	Ethylbenzene
8260C		Water	Ethylene Dibromide
8260C		Water	Hexachlorobutadiene
8260C		Water	Isopropyl ether
8260C		Water	Isopropylbenzene
8260C		Water	Methyl tert-butyl ether
8260C		Water	Methylene Chloride
8260C		Water	m-Xylene & p-Xylene
8260C		Water	Naphthalene
8260C		Water	n-Butylbenzene
8260C		Water	N-Propylbenzene
8260C		Water	o-Xylene
8260C		Water	sec-Butylbenzene
8260C		Water	Styrene
8260C		Water	Tert-amyl methyl ether
8260C		Water	Tert-butyl ethyl ether
8260C		Water	tert-Butylbenzene
8260C		Water	Tetrachloroethene
8260C		Water	Tetrahydrofuran
8260C		Water	Toluene
8260C		Water	trans-1,2-Dichloroethene
8260C		Water	trans-1,3-Dichloropropene
8260C		Water	Trichloroethene
8260C		Water	Trichlorofluoromethane
8260C		Water	Vinyl chloride

Method Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
6010	Metals (ICP)	SW846	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

MA DEP = Massachusetts Department Of Environmental Protection

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134067-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-134067-1	C041218-PP3	Water	04/12/18 11:00	04/13/18 01:15
480-134067-2	C041218-PP4A	Water	04/12/18 12:05	04/13/18 01:15
480-134067-3	C041218-PP4B	Water	04/12/18 13:50	04/13/18 01:15
480-134067-4	C041218-OSW3B	Water	04/12/18 15:40	04/13/18 01:15
480-134067-5	C041218-CLW16B	Water	04/12/18 11:45	04/13/18 01:15
480-134067-6	C041218-OSW3A	Water	04/12/18 13:23	04/13/18 01:15
480-134067-7	C041218-OSW2B	Water	04/12/18 15:27	04/13/18 01:15
480-134067-8	C041218-CLW16BDUP	Water	04/12/18 11:45	04/13/18 01:15
480-134067-9	C041218-Trip Blank	Water	04/12/18 00:00	04/13/18 01:15

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TestAmerica Buffalo

Special Instructions: MCP Protocol, GW-1 Detection Limits, MCP QA/QC Report, -LOWEST RL POSSIBLE
SW846/60B Volatile Organic Compounds, 7196A Hexavalent Chromium, SW846/60B Total Chromium, Enclosed Trip Blank Sampled by Lab.

Succinct Instructions: MCP Protocol GW-1 Detection Limits MCP OA/OF Report - LOWEST RI POSSIBLE

Special Instructions: MCP Protocol (CW-1 Del)

1

Relinquished by:	Jacob Policies	Company	AmecIW	Received by	<i>[Signature]</i>	Company	TAL	Condition	Custody Seals Intact
Date/Time	4/12/18 1543	Date/Time	4/12/18 1543	Date/Time	4/12/18 1543	Company	TAL	Cooler Temp.	
Relinquished by:		Company	TAL	Received by	<i>[Signature]</i>	Company	TAL	Condition	Custody Seals Intact
Date/Time	4/12/18 1525	Date/Time	4/12/18 1525	Date/Time	4/12/18 1525	Company	TAL	Cooler Temp.	

Preservatives: 0 = None; 1 = HCl; 2 = HNO₃; 3 = H₂SO₄; 4 = NaOH; 5 = Zn, Acetate; 6 = MeOH; 7 = NaHSO₄; 8 = Other (specify):

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 480-134067-1

Login Number: 134067

List Source: TestAmerica Buffalo

List Number: 1

Creator: Kinecki, Kenneth P

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AMEC FW
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-134154-1

Client Project/Site: Honeywell Conductor lab

For:

Honeywell International Inc

Remediation & Evaluation Services

115 Tabor Road

Morris Plains, New Jersey 07950

Attn: Ms. Maria Kaouris



Authorized for release by:

4/26/2018 6:59:48 PM

Rebecca Jones, Project Management Assistant I

rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II

(716)504-9838

john.schove@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

%	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Job ID: 480-134154-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-134154-1

Comments

No additional comments.

Receipt

The samples were received on 4/14/2018 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0° C.

GC/MS VOA

Method(s) 8260C: With the exception of diluted samples, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for Carbon disulfide, Isopropyl ether, Naphthalene, tert-Butyl ethyl ether, tert-Amyl methyl Ether, & Tetrahydrofuran

Method(s) 8260C: The continuing calibration verification (CCV) for Acetone associated with batch 480-410111 recovered outside the MCP control limit criteria. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. Difficult analytes are allowed to be outside the 20% difference but not over 60% difference. The following samples were affected : C041318-RB1 (480-134154-1) and C041318-RB2 (480-134154-2).

Method(s) 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-410111 exceeded control limits for the following analytes: 2-Butanone and Tetrahydrofuran. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate and Methacrylonitrile in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following samples were affected : C041318-RB1 (480-134154-1) and C041318-RB2 (480-134154-2).

Method(s) 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-410111 exceeded control limits for the following analytes: 1,4-Dioxane and Acetone. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following samples were affected : C041318-RB1 (480-134154-1) and C041318-RB2 (480-134154-2).

Method(s) 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch analytical batch 480-410111 recovered outside control limits for the following analyte: 1,4-Dioxane.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010: At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

MassDEP Analytical Protocol Certification Form

Laboratory Name: TestAmerica Buffalo		Project #: 480-134154-1			
Project Location: Groton		RTN:			
This form provides certifications for the following data set: list Laboratory Sample ID Number(s): 480-134154-1(1-2)					
Matrices: <input checked="" type="checkbox"/> Groundwater/Surface Water <input type="checkbox"/> Soil/Sediment <input type="checkbox"/> Drinking Water <input type="checkbox"/> Air <input type="checkbox"/> Other:					
CAM Protocols (check all that apply below):					
8260 VOC CAM II A <input checked="" type="checkbox"/>	7470/7471 Hg CAM III B	Mass DEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input checked="" type="checkbox"/>	Mass DEP APH CAM IX A <input type="checkbox"/>
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	Mass DEP EPH CAM IV B <input type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>
6010 Metals CAM III A <input checked="" type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9014 Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>	
Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status					
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
E	a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?			<input type="checkbox"/> Yes	<input type="checkbox"/> No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Responses to Questions G, H and I below are required for "Presumptive Certainty" status					
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350					
H	Were all QC performance standards specified in the CAM protocol(s) achieved?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
¹ All negative responses must be addressed in an attached laboratory narrative.					
I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.					
Signature:			Position:	Project Management Assistant	
Printed Name:	Rebecca Jones		Date:	4/26/18 18:54	

Detection Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Client Sample ID: C041318-RB1

Lab Sample ID: 480-134154-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	4.4	J *	10	1.3	ug/L	1		8260C	Total/NA
Acetone	28	J *	50	3.0	ug/L	1		8260C	Total/NA
Methylene Chloride	0.44	J	1.0	0.44	ug/L	1		8260C	Total/NA

Client Sample ID: C041318-RB2

Lab Sample ID: 480-134154-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	4.1	J *	10	1.3	ug/L	1		8260C	Total/NA
Acetone	14	J *	50	3.0	ug/L	1		8260C	Total/NA
Methylene Chloride	0.49	J	1.0	0.44	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Client Sample ID: C041318-RB1

Lab Sample ID: 480-134154-1

Matrix: Water

Date Collected: 04/13/18 11:15

Date Received: 04/14/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/21/18 17:15	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/21/18 17:15	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/21/18 17:15	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/21/18 17:15	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/21/18 17:15	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/21/18 17:15	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/21/18 17:15	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/21/18 17:15	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/21/18 17:15	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/21/18 17:15	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/21/18 17:15	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/21/18 17:15	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/21/18 17:15	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/21/18 17:15	1
1,2-Dichloropropene	ND		1.0	0.72	ug/L			04/21/18 17:15	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/21/18 17:15	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/21/18 17:15	1
1,3-Dichloropropene	ND		1.0	0.75	ug/L			04/21/18 17:15	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/21/18 17:15	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/21/18 17:15	1
2,2-Dichloropropene	ND		1.0	0.40	ug/L			04/21/18 17:15	1
2-Butanone (MEK)	4.4 J*		10	1.3	ug/L			04/21/18 17:15	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/21/18 17:15	1
2-Hexanone	ND		10	1.2	ug/L			04/21/18 17:15	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/21/18 17:15	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/21/18 17:15	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/21/18 17:15	1
Acetone	28 J*		50	3.0	ug/L			04/21/18 17:15	1
Benzene	ND		1.0	0.41	ug/L			04/21/18 17:15	1
Bromobenzene	ND		1.0	0.80	ug/L			04/21/18 17:15	1
Bromoform	ND		1.0	0.26	ug/L			04/21/18 17:15	1
Bromomethane	ND		2.0	0.69	ug/L			04/21/18 17:15	1
Carbon disulfide	ND		10	0.19	ug/L			04/21/18 17:15	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/21/18 17:15	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/21/18 17:15	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/21/18 17:15	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/21/18 17:15	1
Chloroethane	ND		2.0	0.32	ug/L			04/21/18 17:15	1
Chloroform	ND		1.0	0.34	ug/L			04/21/18 17:15	1
Chloromethane	ND		2.0	0.35	ug/L			04/21/18 17:15	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/21/18 17:15	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/21/18 17:15	1
Dibromomethane	ND		1.0	0.41	ug/L			04/21/18 17:15	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/21/18 17:15	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/21/18 17:15	1
Ethyl ether	ND		1.0	0.72	ug/L			04/21/18 17:15	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/21/18 17:15	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/21/18 17:15	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/21/18 17:15	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Client Sample ID: C041318-RB1

Lab Sample ID: 480-134154-1

Matrix: Water

Date Collected: 04/13/18 11:15

Date Received: 04/14/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/21/18 17:15	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/21/18 17:15	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/21/18 17:15	1
Methylene Chloride	0.44	J	1.0	0.44	ug/L			04/21/18 17:15	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/21/18 17:15	1
Naphthalene	ND		5.0	0.43	ug/L			04/21/18 17:15	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/21/18 17:15	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/21/18 17:15	1
o-Xylene	ND		1.0	0.76	ug/L			04/21/18 17:15	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/21/18 17:15	1
Styrene	ND		1.0	0.73	ug/L			04/21/18 17:15	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/21/18 17:15	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/21/18 17:15	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/21/18 17:15	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/21/18 17:15	1
Tetrahydrofuran	ND *		10	1.3	ug/L			04/21/18 17:15	1
Toluene	ND		1.0	0.51	ug/L			04/21/18 17:15	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/21/18 17:15	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/21/18 17:15	1
Trichloroethene	ND		1.0	0.46	ug/L			04/21/18 17:15	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/21/18 17:15	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/21/18 17:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		70 - 130					04/21/18 17:15	1
4-Bromofluorobenzene (Surr)	93		70 - 130					04/21/18 17:15	1
Toluene-d8 (Surr)	94		70 - 130					04/21/18 17:15	1
Dibromofluoromethane (Surr)	111		70 - 130					04/21/18 17:15	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		5.0	1.0	ug/L		04/16/18 09:44	04/18/18 16:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			04/14/18 10:30	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Client Sample ID: C041318-RB2

Date Collected: 04/13/18 11:30

Date Received: 04/14/18 01:00

Lab Sample ID: 480-134154-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/21/18 17:38	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/21/18 17:38	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/21/18 17:38	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/21/18 17:38	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/21/18 17:38	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/21/18 17:38	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/21/18 17:38	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/21/18 17:38	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/21/18 17:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/21/18 17:38	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/21/18 17:38	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/21/18 17:38	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/21/18 17:38	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/21/18 17:38	1
1,2-Dichloropropene	ND		1.0	0.72	ug/L			04/21/18 17:38	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/21/18 17:38	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/21/18 17:38	1
1,3-Dichloropropene	ND		1.0	0.75	ug/L			04/21/18 17:38	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/21/18 17:38	1
1,4-Dioxane	ND *		50	9.3	ug/L			04/21/18 17:38	1
2,2-Dichloropropene	ND		1.0	0.40	ug/L			04/21/18 17:38	1
2-Butanone (MEK)	4.1 J*		10	1.3	ug/L			04/21/18 17:38	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/21/18 17:38	1
2-Hexanone	ND		10	1.2	ug/L			04/21/18 17:38	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/21/18 17:38	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/21/18 17:38	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/21/18 17:38	1
Acetone	14 J*		50	3.0	ug/L			04/21/18 17:38	1
Benzene	ND		1.0	0.41	ug/L			04/21/18 17:38	1
Bromobenzene	ND		1.0	0.80	ug/L			04/21/18 17:38	1
Bromoform	ND		1.0	0.26	ug/L			04/21/18 17:38	1
Bromomethane	ND		2.0	0.69	ug/L			04/21/18 17:38	1
Carbon disulfide	ND		10	0.19	ug/L			04/21/18 17:38	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/21/18 17:38	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/21/18 17:38	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/21/18 17:38	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/21/18 17:38	1
Chloroethane	ND		2.0	0.32	ug/L			04/21/18 17:38	1
Chloroform	ND		1.0	0.34	ug/L			04/21/18 17:38	1
Chloromethane	ND		2.0	0.35	ug/L			04/21/18 17:38	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/21/18 17:38	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/21/18 17:38	1
Dibromomethane	ND		1.0	0.41	ug/L			04/21/18 17:38	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/21/18 17:38	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/21/18 17:38	1
Ethyl ether	ND		1.0	0.72	ug/L			04/21/18 17:38	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/21/18 17:38	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/21/18 17:38	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/21/18 17:38	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Client Sample ID: C041318-RB2

Lab Sample ID: 480-134154-2

Matrix: Water

Date Collected: 04/13/18 11:30

Date Received: 04/14/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			04/21/18 17:38	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/21/18 17:38	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/21/18 17:38	1
Methylene Chloride	0.49	J	1.0	0.44	ug/L			04/21/18 17:38	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/21/18 17:38	1
Naphthalene	ND		5.0	0.43	ug/L			04/21/18 17:38	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/21/18 17:38	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/21/18 17:38	1
o-Xylene	ND		1.0	0.76	ug/L			04/21/18 17:38	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/21/18 17:38	1
Styrene	ND		1.0	0.73	ug/L			04/21/18 17:38	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/21/18 17:38	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/21/18 17:38	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/21/18 17:38	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/21/18 17:38	1
Tetrahydrofuran	ND *		10	1.3	ug/L			04/21/18 17:38	1
Toluene	ND		1.0	0.51	ug/L			04/21/18 17:38	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/21/18 17:38	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/21/18 17:38	1
Trichloroethene	ND		1.0	0.46	ug/L			04/21/18 17:38	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/21/18 17:38	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/21/18 17:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		70 - 130					04/21/18 17:38	1
4-Bromofluorobenzene (Surr)	94		70 - 130					04/21/18 17:38	1
Toluene-d8 (Surr)	92		70 - 130					04/21/18 17:38	1
Dibromofluoromethane (Surr)	111		70 - 130					04/21/18 17:38	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		5.0	1.0	ug/L		04/16/18 09:44	04/18/18 16:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			04/14/18 10:30	1

TestAmerica Buffalo

Surrogate Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (70-130)	BFB (70-130)	TOL (70-130)	DBFM (70-130)				
480-134154-1	C041318-RB1	112	93	94	111				
480-134154-2	C041318-RB2	113	94	92	111				
LCS 480-410111/5	Lab Control Sample	117	100	97	113				
LCSD 480-410111/6	Lab Control Sample Dup	112	98	92	107				
MB 480-410111/8	Method Blank	110	98	98	106				

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-410111/8

Matrix: Water

Analysis Batch: 410111

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			04/21/18 12:42	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			04/21/18 12:42	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/21/18 12:42	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			04/21/18 12:42	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			04/21/18 12:42	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			04/21/18 12:42	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			04/21/18 12:42	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			04/21/18 12:42	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			04/21/18 12:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			04/21/18 12:42	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			04/21/18 12:42	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			04/21/18 12:42	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			04/21/18 12:42	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			04/21/18 12:42	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			04/21/18 12:42	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			04/21/18 12:42	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			04/21/18 12:42	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			04/21/18 12:42	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			04/21/18 12:42	1
1,4-Dioxane	ND		50	9.3	ug/L			04/21/18 12:42	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			04/21/18 12:42	1
2-Butanone (MEK)	ND		10	1.3	ug/L			04/21/18 12:42	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			04/21/18 12:42	1
2-Hexanone	ND		10	1.2	ug/L			04/21/18 12:42	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			04/21/18 12:42	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			04/21/18 12:42	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			04/21/18 12:42	1
Acetone	ND		50	3.0	ug/L			04/21/18 12:42	1
Benzene	ND		1.0	0.41	ug/L			04/21/18 12:42	1
Bromobenzene	ND		1.0	0.80	ug/L			04/21/18 12:42	1
Bromoform	ND		1.0	0.26	ug/L			04/21/18 12:42	1
Bromomethane	ND		2.0	0.69	ug/L			04/21/18 12:42	1
Carbon disulfide	ND		10	0.19	ug/L			04/21/18 12:42	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			04/21/18 12:42	1
Chlorobenzene	ND		1.0	0.75	ug/L			04/21/18 12:42	1
Chlorobromomethane	ND		1.0	0.87	ug/L			04/21/18 12:42	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			04/21/18 12:42	1
Chloroethane	ND		2.0	0.32	ug/L			04/21/18 12:42	1
Chloroform	ND		1.0	0.34	ug/L			04/21/18 12:42	1
Chloromethane	ND		2.0	0.35	ug/L			04/21/18 12:42	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			04/21/18 12:42	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			04/21/18 12:42	1
Dibromomethane	ND		1.0	0.41	ug/L			04/21/18 12:42	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			04/21/18 12:42	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			04/21/18 12:42	1
Ethyl ether	ND		1.0	0.72	ug/L			04/21/18 12:42	1
Ethylbenzene	ND		1.0	0.74	ug/L			04/21/18 12:42	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			04/21/18 12:42	1

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-410111/8

Matrix: Water

Analysis Batch: 410111

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Hexachlorobutadiene	ND		0.40	0.28	ug/L			04/21/18 12:42	1
Isopropyl ether	ND		10	0.59	ug/L			04/21/18 12:42	1
Isopropylbenzene	ND		1.0	0.79	ug/L			04/21/18 12:42	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			04/21/18 12:42	1
Methylene Chloride	ND		1.0	0.44	ug/L			04/21/18 12:42	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			04/21/18 12:42	1
Naphthalene	ND		5.0	0.43	ug/L			04/21/18 12:42	1
n-Butylbenzene	ND		1.0	0.64	ug/L			04/21/18 12:42	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/21/18 12:42	1
o-Xylene	ND		1.0	0.76	ug/L			04/21/18 12:42	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			04/21/18 12:42	1
Styrene	ND		1.0	0.73	ug/L			04/21/18 12:42	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			04/21/18 12:42	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			04/21/18 12:42	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			04/21/18 12:42	1
Tetrachloroethene	ND		1.0	0.36	ug/L			04/21/18 12:42	1
Tetrahydrofuran	ND		10	1.3	ug/L			04/21/18 12:42	1
Toluene	ND		1.0	0.51	ug/L			04/21/18 12:42	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			04/21/18 12:42	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			04/21/18 12:42	1
Trichloroethene	ND		1.0	0.46	ug/L			04/21/18 12:42	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			04/21/18 12:42	1
Vinyl chloride	ND		1.0	0.90	ug/L			04/21/18 12:42	1

MB MB

Surrogate	%Recovery	MB		Limits	Prepared	Analyzed	Dil Fac
		Result	Qualifier				
1,2-Dichloroethane-d4 (Surr)	110			70 - 130			1
4-Bromofluorobenzene (Surr)	98			70 - 130			1
Toluene-d8 (Surr)	98			70 - 130			1
Dibromofluoromethane (Surr)	106			70 - 130			1

Lab Sample ID: LCS 480-410111/5

Matrix: Water

Analysis Batch: 410111

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
1,1,1,2-Tetrachloroethane	25.0	24.7		ug/L		99	70 - 130
1,1,1-Trichloroethane	25.0	26.1		ug/L		104	70 - 130
1,1,2,2-Tetrachloroethane	25.0	23.5		ug/L		94	70 - 130
1,1,2-Trichloroethane	25.0	23.4		ug/L		94	70 - 130
1,1-Dichloroethane	25.0	25.3		ug/L		101	70 - 130
1,1-Dichloroethene	25.0	24.3		ug/L		97	70 - 130
1,1-Dichloropropene	25.0	24.7		ug/L		99	70 - 130
1,2,3-Trichlorobenzene	25.0	23.0		ug/L		92	70 - 130
1,2,3-Trichloropropane	25.0	26.1		ug/L		104	70 - 130
1,2,4-Trichlorobenzene	25.0	21.8		ug/L		87	70 - 130
1,2,4-Trimethylbenzene	25.0	22.4		ug/L		89	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	25.3		ug/L		101	70 - 130
1,2-Dichlorobenzene	25.0	23.3		ug/L		93	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-410111/5

Matrix: Water

Analysis Batch: 410111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec.
		Result	Qualifier				
1,2-Dichloroethane	25.0	27.0		ug/L		108	70 - 130
1,2-Dichloropropane	25.0	24.6		ug/L		98	70 - 130
1,3,5-Trimethylbenzene	25.0	21.7		ug/L		87	70 - 130
1,3-Dichlorobenzene	25.0	23.0		ug/L		92	70 - 130
1,3-Dichloropropane	25.0	23.2		ug/L		93	70 - 130
1,4-Dichlorobenzene	25.0	23.2		ug/L		93	70 - 130
1,4-Dioxane	500	505		ug/L		101	70 - 130
2,2-Dichloropropane	25.0	24.3		ug/L		97	70 - 130
2-Butanone (MEK)	125	255	*	ug/L		204	70 - 130
2-Chlorotoluene	25.0	21.4		ug/L		86	70 - 130
2-Hexanone	125	136		ug/L		108	70 - 130
4-Chlorotoluene	25.0	21.9		ug/L		88	70 - 130
4-Isopropyltoluene	25.0	22.8		ug/L		91	70 - 130
4-Methyl-2-pentanone (MIBK)	125	130		ug/L		104	70 - 130
Acetone	125	179	*	ug/L		143	70 - 130
Benzene	25.0	24.6		ug/L		98	70 - 130
Bromobenzene	25.0	22.5		ug/L		90	70 - 130
Bromoform	25.0	23.3		ug/L		93	70 - 130
Bromomethane	25.0	28.4		ug/L		114	70 - 130
Carbon disulfide	25.0	23.5		ug/L		94	70 - 130
Carbon tetrachloride	25.0	26.3		ug/L		105	70 - 130
Chlorobenzene	25.0	23.0		ug/L		92	70 - 130
Chlorobromomethane	25.0	27.3		ug/L		109	70 - 130
Chlorodibromomethane	25.0	24.4		ug/L		97	70 - 130
Chloroethane	25.0	28.4		ug/L		113	70 - 130
Chloroform	25.0	25.1		ug/L		100	70 - 130
Chloromethane	25.0	21.4		ug/L		86	70 - 130
cis-1,2-Dichloroethene	25.0	25.6		ug/L		102	70 - 130
cis-1,3-Dichloropropene	25.0	24.7		ug/L		99	70 - 130
Dibromomethane	25.0	26.4		ug/L		105	70 - 130
Dichlorobromomethane	25.0	25.5		ug/L		102	70 - 130
Dichlorodifluoromethane	25.0	22.8		ug/L		91	70 - 130
Ethyl ether	25.0	25.7		ug/L		103	70 - 130
Ethylbenzene	25.0	22.7		ug/L		91	70 - 130
Ethylene Dibromide	25.0	24.3		ug/L		97	70 - 130
Hexachlorobutadiene	25.0	23.9		ug/L		95	70 - 130
Isopropyl ether	25.0	22.6		ug/L		90	70 - 130
Isopropylbenzene	25.0	21.1		ug/L		85	70 - 130
Methyl tert-butyl ether	25.0	25.2		ug/L		101	70 - 130
Methylene Chloride	25.0	22.6		ug/L		91	70 - 130
m-Xylene & p-Xylene	25.0	22.4		ug/L		90	70 - 130
Naphthalene	25.0	23.4		ug/L		94	70 - 130
n-Butylbenzene	25.0	22.5		ug/L		90	70 - 130
N-Propylbenzene	25.0	21.6		ug/L		86	70 - 130
o-Xylene	25.0	23.0		ug/L		92	70 - 130
sec-Butylbenzene	25.0	21.6		ug/L		86	70 - 130
Styrene	25.0	23.2		ug/L		93	70 - 130
Tert-amyl methyl ether	25.0	24.9		ug/L		100	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-410111/5

Matrix: Water

Analysis Batch: 410111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS		Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
Tert-butyl ethyl ether	25.0	24.0		ug/L		96	70 - 130
tert-Butylbenzene	25.0	22.3		ug/L		89	70 - 130
Tetrachloroethene	25.0	26.7		ug/L		107	70 - 130
Tetrahydrofuran	50.0	69.6	*	ug/L		139	70 - 130
Toluene	25.0	22.9		ug/L		92	70 - 130
trans-1,2-Dichloroethene	25.0	23.7		ug/L		95	70 - 130
trans-1,3-Dichloropropene	25.0	22.9		ug/L		92	70 - 130
Trichloroethene	25.0	25.4		ug/L		102	70 - 130
Trichlorofluoromethane	25.0	28.4		ug/L		114	70 - 130
Vinyl chloride	25.0	23.9		ug/L		96	70 - 130
Surrogate		LCS	LCS				
		%Recovery	Qualifier	Limits			
1,2-Dichloroethane-d4 (Surr)	117			70 - 130			
4-Bromofluorobenzene (Surr)	100			70 - 130			
Toluene-d8 (Surr)	97			70 - 130			
Dibromofluoromethane (Surr)	113			70 - 130			

Lab Sample ID: LCSD 480-410111/6

Matrix: Water

Analysis Batch: 410111

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD		Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier						
1,1,1,2-Tetrachloroethane	25.0	26.3		ug/L		105	70 - 130	6	20
1,1,1-Trichloroethane	25.0	26.3		ug/L		105	70 - 130	1	20
1,1,2,2-Tetrachloroethane	25.0	24.2		ug/L		97	70 - 130	3	20
1,1,2-Trichloroethane	25.0	23.6		ug/L		94	70 - 130	1	20
1,1-Dichloroethane	25.0	25.7		ug/L		103	70 - 130	2	20
1,1-Dichloroethene	25.0	24.7		ug/L		99	70 - 130	2	20
1,1-Dichloropropene	25.0	25.9		ug/L		103	70 - 130	5	20
1,2,3-Trichlorobenzene	25.0	23.4		ug/L		94	70 - 130	1	20
1,2,3-Trichloropropane	25.0	26.1		ug/L		105	70 - 130	0	20
1,2,4-Trichlorobenzene	25.0	22.8		ug/L		91	70 - 130	4	20
1,2,4-Trimethylbenzene	25.0	23.5		ug/L		94	70 - 130	5	20
1,2-Dibromo-3-Chloropropane	25.0	25.2		ug/L		101	70 - 130	1	20
1,2-Dichlorobenzene	25.0	23.6		ug/L		95	70 - 130	1	20
1,2-Dichloroethane	25.0	26.9		ug/L		108	70 - 130	0	20
1,2-Dichloropropane	25.0	26.2		ug/L		105	70 - 130	6	20
1,3,5-Trimethylbenzene	25.0	22.9		ug/L		91	70 - 130	5	20
1,3-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130	5	20
1,3-Dichloropropane	25.0	24.4		ug/L		98	70 - 130	5	20
1,4-Dichlorobenzene	25.0	23.4		ug/L		94	70 - 130	1	20
1,4-Dioxane	500	660	*	ug/L		132	70 - 130	27	20
2,2-Dichloropropane	25.0	25.6		ug/L		102	70 - 130	5	20
2-Butanone (MEK)	125	258	*	ug/L		206	70 - 130	1	20
2-Chlorotoluene	25.0	21.9		ug/L		88	70 - 130	2	20
2-Hexanone	125	137		ug/L		110	70 - 130	1	20
4-Chlorotoluene	25.0	22.9		ug/L		92	70 - 130	4	20
4-Isopropyltoluene	25.0	24.4		ug/L		97	70 - 130	7	20

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-410111/6

Matrix: Water

Analysis Batch: 410111

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD	Limit
	Added	Result	Qualifier							
4-Methyl-2-pentanone (MIBK)	125	133		ug/L		106	70 - 130	2	20	
Acetone	125	180	*	ug/L		144	70 - 130	1	20	
Benzene	25.0	25.3		ug/L		101	70 - 130	3	20	
Bromobenzene	25.0	23.3		ug/L		93	70 - 130	3	20	
Bromoform	25.0	25.2		ug/L		101	70 - 130	8	20	
Bromomethane	25.0	30.0		ug/L		120	70 - 130	5	20	
Carbon disulfide	25.0	24.3		ug/L		97	70 - 130	4	20	
Carbon tetrachloride	25.0	27.7		ug/L		111	70 - 130	5	20	
Chlorobenzene	25.0	24.1		ug/L		97	70 - 130	5	20	
Chlorobromomethane	25.0	29.0		ug/L		116	70 - 130	6	20	
Chlorodibromomethane	25.0	25.4		ug/L		102	70 - 130	4	20	
Chloroethane	25.0	29.5		ug/L		118	70 - 130	4	20	
Chloroform	25.0	25.4		ug/L		102	70 - 130	1	20	
Chloromethane	25.0	22.4		ug/L		90	70 - 130	5	20	
cis-1,2-Dichloroethene	25.0	26.8		ug/L		107	70 - 130	5	20	
cis-1,3-Dichloropropene	25.0	26.2		ug/L		105	70 - 130	6	20	
Dibromomethane	25.0	27.8		ug/L		111	70 - 130	5	20	
Dichlorobromomethane	25.0	26.5		ug/L		106	70 - 130	4	20	
Dichlorodifluoromethane	25.0	23.4		ug/L		94	70 - 130	3	20	
Ethyl ether	25.0	26.5		ug/L		106	70 - 130	3	20	
Ethylbenzene	25.0	24.0		ug/L		96	70 - 130	5	20	
Ethylene Dibromide	25.0	25.4		ug/L		101	70 - 130	4	20	
Hexachlorobutadiene	25.0	25.3		ug/L		101	70 - 130	6	20	
Isopropyl ether	25.0	23.6		ug/L		94	70 - 130	4	20	
Isopropylbenzene	25.0	22.8		ug/L		91	70 - 130	8	20	
Methyl tert-butyl ether	25.0	25.9		ug/L		104	70 - 130	3	20	
Methylene Chloride	25.0	22.7		ug/L		91	70 - 130	0	20	
m-Xylene & p-Xylene	25.0	24.1		ug/L		96	70 - 130	7	20	
Naphthalene	25.0	23.8		ug/L		95	70 - 130	2	20	
n-Butylbenzene	25.0	23.7		ug/L		95	70 - 130	5	20	
N-Propylbenzene	25.0	22.4		ug/L		89	70 - 130	4	20	
o-Xylene	25.0	23.4		ug/L		94	70 - 130	2	20	
sec-Butylbenzene	25.0	23.4		ug/L		94	70 - 130	8	20	
Styrene	25.0	24.9		ug/L		100	70 - 130	7	20	
Tert-amyl methyl ether	25.0	25.6		ug/L		103	70 - 130	3	20	
Tert-butyl ethyl ether	25.0	24.8		ug/L		99	70 - 130	3	20	
tert-Butylbenzene	25.0	24.2		ug/L		97	70 - 130	8	20	
Tetrachloroethene	25.0	27.8		ug/L		111	70 - 130	4	20	
Tetrahydrofuran	50.0	70.5	*	ug/L		141	70 - 130	1	20	
Toluene	25.0	24.1		ug/L		96	70 - 130	5	20	
trans-1,2-Dichloroethene	25.0	24.9		ug/L		100	70 - 130	5	20	
trans-1,3-Dichloropropene	25.0	24.6		ug/L		98	70 - 130	7	20	
Trichloroethene	25.0	26.3		ug/L		105	70 - 130	3	20	
Trichlorofluoromethane	25.0	29.5		ug/L		118	70 - 130	4	20	
Vinyl chloride	25.0	24.0		ug/L		96	70 - 130	0	20	

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	112		70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-410111/6

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 410111

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
Toluene-d8 (Surr)	92		70 - 130
Dibromofluoromethane (Surr)	107		70 - 130

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-408937/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 409691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		5.0	1.0	ug/L		04/16/18 09:44	04/18/18 16:12	1

Lab Sample ID: LCS 480-408937/2-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 409691

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Chromium	200	209		ug/L		104	80 - 120

Lab Sample ID: LCSD 480-408937/24-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 409691

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	Limit
Chromium	200	196		ug/L		98	80 - 120	7 20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 480-408882/3

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 408882

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L		04/14/18 10:30		1

Lab Sample ID: LCS 480-408882/4

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 408882

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Chromium, hexavalent	0.200	0.205		mg/L		102	80 - 120

Lab Sample ID: LCSD 480-408882/5

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 408882

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	Limit
Chromium, hexavalent	0.200	0.202		mg/L		101	80 - 120	1 20

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
 Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Lab Sample ID: 480-134154-1 MS

Client Sample ID: C041318-RB1
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 408882

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier				
Chromium, hexavalent	ND		0.200	0.192		mg/L	96	75 - 125	

Lab Sample ID: 480-134154-1 DU

Client Sample ID: C041318-RB1
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 408882

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Chromium, hexavalent	ND		ND		mg/L	NC	20	

QC Association Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

GC/MS VOA

Analysis Batch: 410111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-134154-1	C041318-RB1	Total/NA	Water	8260C	
480-134154-2	C041318-RB2	Total/NA	Water	8260C	
MB 480-410111/8	Method Blank	Total/NA	Water	8260C	
LCS 480-410111/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-410111/6	Lab Control Sample Dup	Total/NA	Water	8260C	

Metals

Prep Batch: 408937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-134154-1	C041318-RB1	Total/NA	Water	3005A	
480-134154-2	C041318-RB2	Total/NA	Water	3005A	
MB 480-408937/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-408937/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-408937/24-A	Lab Control Sample Dup	Total/NA	Water	3005A	

Analysis Batch: 409691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-134154-1	C041318-RB1	Total/NA	Water	6010	408937
480-134154-2	C041318-RB2	Total/NA	Water	6010	408937
MB 480-408937/1-A	Method Blank	Total/NA	Water	6010	408937
LCS 480-408937/2-A	Lab Control Sample	Total/NA	Water	6010	408937
LCSD 480-408937/24-A	Lab Control Sample Dup	Total/NA	Water	6010	408937

General Chemistry

Analysis Batch: 408882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-134154-1	C041318-RB1	Total/NA	Water	7196A	
480-134154-2	C041318-RB2	Total/NA	Water	7196A	
MB 480-408882/3	Method Blank	Total/NA	Water	7196A	
LCS 480-408882/4	Lab Control Sample	Total/NA	Water	7196A	
LCSD 480-408882/5	Lab Control Sample Dup	Total/NA	Water	7196A	
480-134154-1 MS	C041318-RB1	Total/NA	Water	7196A	
480-134154-1 DU	C041318-RB1	Total/NA	Water	7196A	

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Client Sample ID: C041318-RB1

Lab Sample ID: 480-134154-1

Matrix: Water

Date Collected: 04/13/18 11:15

Date Received: 04/14/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	410111	04/21/18 17:15	RRS	TAL BUF
Total/NA	Prep	3005A			408937	04/16/18 09:44	SMF	TAL BUF
Total/NA	Analysis	6010		1	409691	04/18/18 16:20	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408882	04/14/18 10:30	ALZ	TAL BUF

Client Sample ID: C041318-RB2

Lab Sample ID: 480-134154-2

Matrix: Water

Date Collected: 04/13/18 11:30

Date Received: 04/14/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	410111	04/21/18 17:38	RRS	TAL BUF
Total/NA	Prep	3005A			408937	04/16/18 09:44	SMF	TAL BUF
Total/NA	Analysis	6010		1	409691	04/18/18 16:23	LMH	TAL BUF
Total/NA	Analysis	7196A		1	408882	04/14/18 10:30	ALZ	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TestAmerica Buffalo

Accreditation/Certification Summary

Client: Honeywell International Inc
 Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Massachusetts	State Program	1	M-NY044	06-30-18
The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:				
Analysis Method	Prep Method	Matrix	Analyte	
6010	3005A	Water	Chromium	
7196A		Water	Chromium, hexavalent	
8260C		Water	1,1,1,2-Tetrachloroethane	
8260C		Water	1,1,1-Trichloroethane	
8260C		Water	1,1,2,2-Tetrachloroethane	
8260C		Water	1,1,2-Trichloroethane	
8260C		Water	1,1-Dichloroethane	
8260C		Water	1,1-Dichloroethene	
8260C		Water	1,1-Dichloropropene	
8260C		Water	1,2,3-Trichlorobenzene	
8260C		Water	1,2,3-Trichloropropane	
8260C		Water	1,2,4-Trichlorobenzene	
8260C		Water	1,2,4-Trimethylbenzene	
8260C		Water	1,2-Dibromo-3-Chloropropane	
8260C		Water	1,2-Dichlorobenzene	
8260C		Water	1,2-Dichloroethane	
8260C		Water	1,2-Dichloropropane	
8260C		Water	1,3,5-Trimethylbenzene	
8260C		Water	1,3-Dichlorobenzene	
8260C		Water	1,3-Dichloropropane	
8260C		Water	1,4-Dichlorobenzene	
8260C		Water	1,4-Dioxane	
8260C		Water	2,2-Dichloropropane	
8260C		Water	2-Butanone (MEK)	
8260C		Water	2-Chlorotoluene	
8260C		Water	2-Hexanone	
8260C		Water	4-Chlorotoluene	
8260C		Water	4-Isopropyltoluene	
8260C		Water	4-Methyl-2-pentanone (MIBK)	
8260C		Water	Acetone	
8260C		Water	Benzene	
8260C		Water	Bromobenzene	
8260C		Water	Bromoform	
8260C		Water	Bromomethane	
8260C		Water	Carbon disulfide	
8260C		Water	Carbon tetrachloride	
8260C		Water	Chlorobenzene	
8260C		Water	Chlorobromomethane	
8260C		Water	Chlorodibromomethane	
8260C		Water	Chloroethane	
8260C		Water	Chloroform	
8260C		Water	Chloromethane	
8260C		Water	cis-1,2-Dichloroethene	
8260C		Water	cis-1,3-Dichloropropene	
8260C		Water	Dibromomethane	
8260C		Water	Dichlorobromomethane	

Accreditation/Certification Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Laboratory: TestAmerica Buffalo (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Massachusetts	State Program	1	M-NY044	06-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	Dichlorodifluoromethane
8260C		Water	Ethyl ether
8260C		Water	Ethylbenzene
8260C		Water	Ethylene Dibromide
8260C		Water	Hexachlorobutadiene
8260C		Water	Isopropyl ether
8260C		Water	Isopropylbenzene
8260C		Water	Methyl tert-butyl ether
8260C		Water	Methylene Chloride
8260C		Water	m-Xylene & p-Xylene
8260C		Water	Naphthalene
8260C		Water	n-Butylbenzene
8260C		Water	N-Propylbenzene
8260C		Water	o-Xylene
8260C		Water	sec-Butylbenzene
8260C		Water	Styrene
8260C		Water	Tert-amyl methyl ether
8260C		Water	Tert-butyl ethyl ether
8260C		Water	tert-Butylbenzene
8260C		Water	Tetrachloroethene
8260C		Water	Tetrahydrofuran
8260C		Water	Toluene
8260C		Water	trans-1,2-Dichloroethene
8260C		Water	trans-1,3-Dichloropropene
8260C		Water	Trichloroethene
8260C		Water	Trichlorofluoromethane
8260C		Water	Vinyl chloride

Method Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
6010	Metals (ICP)	SW846	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

MA DEP = Massachusetts Department Of Environmental Protection

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-134154-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-134154-1	C041318-RB1	Water	04/13/18 11:15	04/14/18 01:00
480-134154-2	C041318-RB2	Water	04/13/18 11:30	04/14/18 01:00

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TestAmerica Buffalo

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 480-134154-1

Login Number: 134154

List Source: TestAmerica Buffalo

List Number: 1

Creator: Kinecki, Kenneth P

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AMEC FW
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

DATA VALIDATION SUMMARY REPORT
JULY 2018 SURFACE WATER AND SEDIMENT SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

1.0 INTRODUCTION

Data validation was completed on samples collected during surface water and sediment sampling event completed in July 2018. A summary of samples included in this report is presented in Table 1. Samples were reported in data packages 480-138351-1, 480-138352-1 and 480-138423-1. Samples were analyzed by the following Test America Laboratories (TAL):

TAL BUF- Test America Buffalo, Amherst, NY
TAL EDI- Test America Edison, Edison, NJ 08817
TAL PIT- Test America Pittsburgh, Pittsburgh, PA

The following U.S. Environmental Protection Agency (USEPA) SW-846 (USEPA, 1996a) analytical methods were performed:

-) Volatile organic compounds (VOCs) by USEPA Method 8260C
-) Semivolatile organic compounds (SVOCs) by USEPA Method 8270D
-) Organochlorine pesticides by USEPA Method 8081B
-) Dissolved Metals by USEPA Method 6010
-) Total Metals by USEPA Method 6010
-) Mercury by USEPA Method SW7471A
-) Trivalent Chromium by USEPA Method 3500-CR
-) Hexavalent chromium by USEPA Method 7196A
-) Total Organic Carbon (TOC) by USEPA Method Lloyd Kahn
-) Total Hardness by USEPA Method 2340B

Data validation was completed using Level II procedures described for Honeywell projects. Quality control (QC) data were compared to limits established for the Massachusetts Contingency Plan (MCP) in the Massachusetts Compendium of analytical methods (MassDEP, 2010). Data qualifiers were added to results if needed in accordance with general procedures described in USEPA data validation guidelines (USEPA, 1996b). A summary of QC limits used during this review is presented on Table 2.

During the Level II data validation the following data quality indicators are reviewed.

-) Lab Report Narrative
-) Data Completeness and Chain of Custody
-) Sample Collection and Holding Times
-) Blanks
-) Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)
-) Matrix Spike/Matrix Spike Duplicate (MS/MSD)
-) Field Duplicates
-) Surrogate Spikes
-) Reporting Limits
-) Electronic Data Verification

Data reviews are completed using laboratory QC summary forms. Data qualifications are completed if necessary in accordance with the guidelines using the following qualifiers:

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

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.

The Level II validation qualification actions for this data set and associated validation reason codes are presented on Table 3. The following data validation reason codes were applied to one or more sample results.

BL1=Result qualified due to laboratory blank

LCSDH=Laboratory control sample duplicate recovery greater than the upper limit

LCSH=Laboratory control sample recovery greater than the upper limit

LCSDL=Laboratory control sample duplicate recovery less than the lower limit

LCSL= Laboratory control sample recovery less than the lower limit

MSDL=Matrix spike duplicate recovery less than the lower limit

MSDP=Matrix Spike Duplicate RPD criteria exceedance

MSL=Matrix spike recovery less than the lower limit

Sample results that are not included on Table 3 were interpreted to be usable as reported by the laboratory. A complete summary of final sample results is provided on Table 4.

2.0 DATA VALIDATION ACTIONS AND OBSERVATIONS

Quality control (QC) parameters and measurements checked during validation met requirements in the analytical method and/or validation guidelines. Unless specified below, results are interpreted to be usable as reported by the laboratory.

2.1 Sediment

2.1.1 VOCs

Data were evaluated for the following parameters:

- * Collection and Preservation
- * Holding Times
- * Data Completeness
- * Blank Contamination
- LCS/LCSD
- * MS/MSD
- * Surrogate Recoveries
- * Project Reporting Limits

* - Validation checks met project and method goals.

LCS/LCSD

LCS and/or LCSD percent recoveries were lower than the QC limit of 70 percent for bromomethane (62/61), chloroethane (60/59), chloromethane (74/66), dichlorodifluoromethane

(75/67), ethyl ether (73/68), trichlorofluoromethane (66/61) and vinyl chloride (66/64) in batch 423533, which may indicate low bias. These compounds were not detected in associated samples and reporting limits were qualified as estimated (UJ) with reason code LCSL and/or LCSDL.

LCS and LCSD percent recoveries were greater than the QC limit of 130 percent for 2-butanone (MEK) (199/185), which may indicate high bias. The detected 2-butanone (MEK) result was qualified as estimated (J) with reason code LCSH/LCSDH.

2.1.2 SVOCs

Data were evaluated for the following parameters:

- * Collection and Preservation
- * Holding Times
- * Data Completeness
- * Blank Contamination
- * LCS/LCSD
- MS/MSD
- * Surrogate Recoveries
- Project Reporting Limits

* - Validation checks met project and method goals.

MS/MSD

MS and MSD analyses were completed using sample C070218-CSD1. The MS percent recovery for aniline (35) was lower than the QC limit of 40, which may indicate low bias. Aniline was not detected in associated sample C070218-CSD1 and the reporting limit was qualified as estimated (UJ) with reason code MSL.

Reporting Limits

Samples were analyzed at dilutions due to the sample matrix. Reporting limits are elevated due to the dilution.

2.1.3 Organochloride pesticides

Data were evaluated for the following parameters:

- * Collection and Preservation
- * Holding Times
- * Data Completeness
- * Blank Contamination
- * LCS/LCSD
- MS/MSD
- * Laboratory Duplicate
- Project Reporting Limits

* - Validation checks met project and method goals.

MS/MSD

MS and MSD analyses were completed using sample C070218-CSDBKG-001. The relative percent difference (RPD) for gamma-BHC (lindane) (31) is outside the QC limit of 30. Gamma-BHC in sample C070218-CSDBKG-001 was qualified as estimated (J) with reason code MSDP.

Reporting Limits

Samples were analyzed at dilutions due to the sample matrix. Reporting limits are elevated due to the dilution.

2.1.4 Metals and General Chemistry

Data were evaluated for the following parameters:

- * Collection and Preservation
- * Holding Times
- * Data Completeness
- * Blank Contamination
- * LCS/LCSD
- MS/MSD
- * Field Duplicates
- * Laboratory Duplicates
- * Project Reporting Limits

* - Validation checks met project and method goals.

MS/MSD

MS and MSD analyses were completed using sample C070218-CSD5. The MS and MSD percent recovery for chromium (21/54) was lower than the QC limit of 75, which may indicate low bias. Chromium in sample C070218-CSD5 was qualified as estimated (J) with reason code MSL, MSDL.

2.2 Surface Water

2.2.1 VOCs

Data were evaluated for the following parameters:

- * Collection and Preservation
- * Holding Times
- * Data Completeness
- * Blank Contamination
- * LCS/LCSD
- MS/MSD
- * Surrogate Recoveries
- * Project Reporting Limits

* - Validation checks met project and method goals.

2.2.2 Dissolved Metals

Data were evaluated for the following parameters:

- * Collection and Preservation
- * Holding Times
- * Data Completeness
- Blank Contamination
- * LCS/LCSD
- * MS/MSD
- * Surrogate Recoveries
- * Project Reporting Limits

* - Validation checks met project and method goals.

Blanks

Dissolved copper (1.75 µg/L) and dissolved zinc (10.1 µg/L) were detected below the reporting limit in the associated method blank of batch 423017. An action limit was established at five times of the reported blank concentrations. Dissolved copper and dissolved zinc results in associated samples were detected less than the action limit and qualified as non-detect (U) at the reporting limit with reason code BL1.

2.2.3 Hexavalent Chromium and Total Hardness

Data were evaluated for the following parameters:

- * Collection and Preservation
- * Holding Times
- * Data Completeness
- Blank Contamination
- * LCS/LCSD
- * MS/MSD
- * Surrogate Recoveries
- * Project Reporting Limits

* - Validation checks met project and method goals.

References:

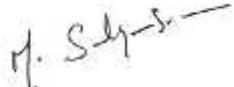
American Public Health Association (APHA), 2008. "Standard Methods for Examination of Water and Wastewater"; On-line Publication; APHA, 1015 Fifteenth St., NW. Washington, D.C. 20005.

Massachusetts Department of Environmental Protection (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.

U.S. Environmental Protection Agency (USEPA), 1996a. "Test Methods for Evaluating Solid Waste"; Laboratory Manual Physical/Chemical Methods; Office of Solid Waste and Emergency Response; Washington, DC; SW-846; November 1986; Revision 4 -December 1996.

U.S. Environmental Protection Agency (USEPA), 1996b. "Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses"; Quality Assurance Unit Staff; Office of Environmental Measurement and Evaluation; December, 1996.

Data Validator: Sandhyasree



July 25, 2018

Senior Chemist: Chris Ricardi, NRCC-EAC



July 30, 2018

TABLE 1
SAMPLE AND ANALYTICAL SUMMARY
DATA VALIDATION SUMMARY REPORT
JULY 2018 SURGACE WATER AND SEDIMENT SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

SDG	Field Sample ID	Location ID	Type	Sample Matrix	Parameter	VOCs	SVOCs	Pesticide	Dissolved Metals	Total Metals	Mercury	Cr (III)	Cr (VI)	TOC	Total Hardness	
						Method	8260C	SW8270	SW8081	6010	6010	SW7471	SM3500-CR	7196A	Lloyd Kahn	SM2340B
480-138351-1	C070218-CSW3	CSW-3	REG	Water	7/2/2018	71			22					1		3
480-138351-1	C070218-CSW3A	CSW-3A	REG	Water	7/2/2018	71			22					1		3
480-138351-1	C070218-CSW5	CSW-5	REG	Water	7/2/2018	71			22					1		3
480-138351-1	C070218-CSWBKG-001	CSWBKG001	REG	Water	7/2/2018				22					1		3
480-138352-1/480-138423-1	C070218-CSD1	CSD-1	REG	Sediment	7/2/2018	71	59	19		13	1	1	1	1		
480-138352-1/480-138423-1	C070218-CSD3	CSD-3	REG	Sediment	7/2/2018	71	59	19		13	1	1	1	1		
480-138352-1/480-138423-1	C070218-CSD3A	CSD-3A	REG	Sediment	7/2/2018	71	59	19		13	1	1	1	1		
480-138352-1/480-138423-1	C070218-CSD5	CSD-5	REG	Sediment	7/2/2018	71	59	19		13	1	1	1	1		
480-138352-1/480-138423-1	C070218-CSDBKG-001	CSD-BKG001	REG	Sediment	7/2/2018	71	59	19		13	1	1	1	1		

Notes:

Cr(III): Trivalent Chromium

Cr(VI): Hexavalent Chromium

REG: Regular Sample

SDG: Sample Delivery Group

TOC:Total Organic Carbon

TABLE 2
ACCURACY AND PRECISION LIMITS
DATA VALIDATION SUMMARY REPORT
JULY 2018 SURFACE WATER AND SEDIMENT SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

PARAMETER	QC TEST	ANALYTE	WATER		SOIL	
			(%R)	RPD	(%R)	RPD
Volatiles	Surrogate	All Surrogates	70 - 130		70 - 130	
	LCS/LCSD	All Target Compounds	70 - 130	20	70 - 130	20
	MS/MSD	All Target Compounds	70 - 130	20	70 - 130	30
Semivolatiles	Surrogate	All Surrogates	30-130		30-130	
	LCS/LCSD	All Acid Target Compounds	30-130	20	30-130	30
	MS/MSD	All Base-Neutral Target Compounds	40-140	20	40-140	30
		All Acid Target Compounds	30-130	20	30-130	30
		All Base-Neutral Target Compounds	40-140	20	40-140	30
PCBs	Surrogate	All Surrogates	30-150		30-150	
	LCS/LCSD	All Target Compounds	40-140	20	40-140	30
	MS/MSD	All Target Compounds	30-150	20	30-150	30
Inorganics	LCS/LCSD	All Target Analytes	80 - 120	20	80 - 120	30
	MS/MSD	All Target Analytes	75 - 125	20	75 - 125	30
	Lab Duplicates	All Target Analytes	n/a	20	n/a	30

Notes:

LCS/LCSD = Laboratory Control Sample/Laboratory Control Sample

MS/MSD = Matrix spike/ Matrix Spike Duplicate

RPD = Relative percent difference

%R = Percent Recovery

QC = Quality Control

TABLE 3
VALIDATION ACTIONS SUMMARY
DATA VALIDATION SUMMARY REPORT
JULY 2018 SURFACE WATER AND SEDIMENT SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

SDG	Field Sample ID	Type	Matrix	Method	Parameter	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
480-138423-1	C070218-CSD5	REG	Sediment	SW6010	Chromium	170	F1	J	MSL,MSDL	mg/kg
480-138423-1	C070218-CSDBKG-001	REG	Sediment	SW8081	gamma-BHC (Lindane)	8.0	J,F2	J	MSDP	µg/kg
480-138352-1	C070218-CSD1	REG	Sediment	SW8260	Bromomethane	2.9	U,*	UJ	LCSL,LCSLDL	µg/kg
480-138352-1	C070218-CSD1	REG	Sediment	SW8260	Chloroethane	2.9	U,*	UJ	LCSL,LCSLDL	µg/kg
480-138352-1	C070218-CSD1	REG	Sediment	SW8260	Chloromethane	2.9	U,*	UJ	LCSLDL	µg/kg
480-138352-1	C070218-CSD1	REG	Sediment	SW8260	Dichlorodifluoromethane	2.9	U,*	UJ	LCSLDL	µg/kg
480-138352-1	C070218-CSD1	REG	Sediment	SW8260	Ethyl ether	2.9	U,*	UJ	LCSLDL	µg/kg
480-138352-1	C070218-CSD1	REG	Sediment	SW8260	Trichlorofluoromethane	2.9	U,*	UJ	LCSL,LCSLDL	µg/kg
480-138352-1	C070218-CSD1	REG	Sediment	SW8260	Vinyl chloride	2.9	U,*	UJ	LCSLDL	µg/kg
480-138352-1	C070218-CSD3	REG	Sediment	SW8260	Bromomethane	2.6	U,*	UJ	LCSL,LCSLDL	µg/kg
480-138352-1	C070218-CSD3	REG	Sediment	SW8260	Chloroethane	2.6	U,*	UJ	LCSL,LCSLDL	µg/kg
480-138352-1	C070218-CSD3	REG	Sediment	SW8260	Chloromethane	2.6	U,*	UJ	LCSLDL	µg/kg
480-138352-1	C070218-CSD3	REG	Sediment	SW8260	Dichlorodifluoromethane	2.6	U,*	UJ	LCSLDL	µg/kg
480-138352-1	C070218-CSD3	REG	Sediment	SW8260	Ethyl ether	2.6	U,*	UJ	LCSLDL	µg/kg
480-138352-1	C070218-CSD3	REG	Sediment	SW8260	Trichlorofluoromethane	2.6	U,*	UJ	LCSL,LCSLDL	µg/kg
480-138352-1	C070218-CSD3	REG	Sediment	SW8260	Vinyl chloride	2.6	U,*	UJ	LCSLDL	µg/kg
480-138352-1	C070218-CSD3A	REG	Sediment	SW8260	Bromomethane	3.5	U,*	UJ	LCSL,LCSLDL	µg/kg
480-138352-1	C070218-CSD3A	REG	Sediment	SW8260	Chloroethane	3.5	U,*	UJ	LCSL,LCSLDL	µg/kg
480-138352-1	C070218-CSD3A	REG	Sediment	SW8260	Chloromethane	3.5	U,*	UJ	LCSLDL	µg/kg
480-138352-1	C070218-CSD3A	REG	Sediment	SW8260	Dichlorodifluoromethane	3.5	U,*	UJ	LCSLDL	µg/kg
480-138352-1	C070218-CSD3A	REG	Sediment	SW8260	Ethyl ether	3.5	U,*	UJ	LCSLDL	µg/kg
480-138352-1	C070218-CSD3A	REG	Sediment	SW8260	Trichlorofluoromethane	3.5	U,*	UJ	LCSL,LCSLDL	µg/kg
480-138352-1	C070218-CSD3A	REG	Sediment	SW8260	Vinyl chloride	3.5	U,*	UJ	LCSLDL	µg/kg
480-138352-1	C070218-CSD5	REG	Sediment	SW8260	Bromomethane	4.1	U,*	UJ	LCSL,LCSLDL	µg/kg
480-138352-1	C070218-CSD5	REG	Sediment	SW8260	Chloroethane	4.1	U,*	UJ	LCSL,LCSLDL	µg/kg
480-138352-1	C070218-CSD5	REG	Sediment	SW8260	Chloromethane	4.1	U,*	UJ	LCSLDL	µg/kg
480-138352-1	C070218-CSD5	REG	Sediment	SW8260	Dichlorodifluoromethane	4.1	U,*	UJ	LCSLDL	µg/kg
480-138352-1	C070218-CSD5	REG	Sediment	SW8260	Ethyl ether	4.1	U,*	UJ	LCSLDL	µg/kg
480-138352-1	C070218-CSD5	REG	Sediment	SW8260	Trichlorofluoromethane	4.1	U,*	UJ	LCSL,LCSLDL	µg/kg
480-138352-1	C070218-CSD5	REG	Sediment	SW8260	Vinyl chloride	4.1	U,*	UJ	LCSLDL	µg/kg
480-138352-1	C070218-CSDBKG-001	REG	Sediment	SW8260	2-Butanone (MEK)	6.9	J,*	J	LCSH,LCSDH	µg/kg
480-138352-1	C070218-CSDBKG-001	REG	Sediment	SW8260	Bromomethane	4.3	U,*	UJ	LCSL,LCSLDL	µg/kg
480-138352-1	C070218-CSDBKG-001	REG	Sediment	SW8260	Chloroethane	4.3	U,*	UJ	LCSL,LCSLDL	µg/kg

TABLE 3
VALIDATION ACTIONS SUMMARY
DATA VALIDATION SUMMARY REPORT
JULY 2018 SURFACE WATER AND SEDIMENT SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

SDG	Field Sample ID	Type	Matrix	Method	Parameter	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
480-138352-1	C070218-CSDBKG-001	REG	Sediment	SW8260	Chloromethane	4.3	U,*	UJ	LCSLD	µg/kg
480-138352-1	C070218-CSDBKG-001	REG	Sediment	SW8260	Dichlorodifluoromethane	4.3	U,*	UJ	LCSLD	µg/kg
480-138352-1	C070218-CSDBKG-001	REG	Sediment	SW8260	Ethyl ether	4.3	U,*	UJ	LCSLD	µg/kg
480-138352-1	C070218-CSDBKG-001	REG	Sediment	SW8260	Trichlorofluoromethane	4.3	U,*	UJ	LCSL,LCSLD	µg/kg
480-138352-1	C070218-CSDBKG-001	REG	Sediment	SW8260	Vinyl chloride	4.3	U,*	UJ	LCSLD	µg/kg
480-138423-1	C070218-CSD1	REG	Sediment	SW8270	Aniline	370	U,F2,F1	UJ	MSL	µg/kg
480-138351-1	C070218-CSW3A	REG	Water	SW6010	Copper, Dissolved	10	J,B	U	BL1	µg/L
480-138351-1	C070218-CSW3A	REG	Water	SW6010	Zinc, Dissolved	50	J,B	U	BL1	µg/L
480-138351-1	C070218-CSW5	REG	Water	SW6010	Copper, Dissolved	10	J,B	U	BL1	µg/L
480-138351-1	C070218-CSWBKG-001	REG	Water	SW6010	Zinc, Dissolved	50	J,B	U	BL1	µg/L

Notes:

BL1= Result qualified due to laboratory blank

LCSDH= Laboratory control sample duplicate recovery greater than the upper limit

LCSH= Laboratory control sample recovery greater than the upper limit

LCSLD= Laboratory control sample duplicate recovery less than the lower limit

LCSL= Laboratory control sample recovery less than the lower limit

MSDL= Matrix spike duplicate recovery less than the lower limit

MSDP= Matrix Spike Duplicate RPD criteria exceedance

MSL= Matrix spike recovery less than the lower limit

U = Undetected

J = Estimated value

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
JUNE 2018 SURFACE WATER AND SEDIMENT SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID		C070218-CSW3	C070218-CSW3A	C070218-CSW5	C070218-CSWBKG-001
Units	Method	Parameter Name			
mg/L	SM2340B	Calcium hardness as calcium carbonate	700	1500	5000
mg/L	SM2340B	Hardness as calcium carbonate	960	2200	5000
mg/L	SM2340B	Magnesium hardness as calcium carbon	260	670	0.50 U
mg/L	SW7196	Chromium, hexavalent	0.24	0.24	0.022
µg/L	SW6010	Aluminum, Dissolved	200 U	200 U	200 U
µg/L	SW6010	Antimony, Dissolved	20 U	20 U	20 U
µg/L	SW6010	Arsenic, Dissolved	10 U	10 U	10 U
µg/L	SW6010	Barium, Dissolved	23	23	22
µg/L	SW6010	Beryllium, Dissolved	1.0 U	1.0 U	1.0 U
µg/L	SW6010	Cadmium, Dissolved	1.0 U	1.0 U	1.0 U
µg/L	SW6010	Calcium, Dissolved	26000	27000	31000
µg/L	SW6010	Chromium, Dissolved	230	230	9.8
µg/L	SW6010	Cobalt, Dissolved	4.0 U	4.0 U	4.0 U
µg/L	SW6010	Copper, Dissolved	11	10 U	10 U
µg/L	SW6010	Iron, Dissolved	50 U	50 U	42 J
µg/L	SW6010	Lead, Dissolved	5.0 U	5.0 U	5.0 U
µg/L	SW6010	Magnesium, Dissolved	2100	2200	2400
µg/L	SW6010	Manganese, Dissolved	63	28	170
µg/L	SW6010	Nickel, Dissolved	1.6 J	1.5 J	10 U
µg/L	SW6010	Potassium, Dissolved	4000	4200	3400
µg/L	SW6010	Selenium, Dissolved	10 U	10 U	10 U
µg/L	SW6010	Silver, Dissolved	5.0 U	5.0 U	5.0 U
µg/L	SW6010	Sodium, Dissolved	26000	34000	44000
µg/L	SW6010	Thallium, Dissolved	20 U	20 U	20 U
µg/L	SW6010	Vanadium, Dissolved	10 U	10 U	10 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
JUNE 2018 SURFACE WATER AND SEDIMENT SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID		C070218-CSW3	C070218-CSW3A	C070218-CSW5	C070218-CSWBKG-001
Units	Method	Parameter Name			
µg/L	SW6010	Zinc, Dissolved	52	50 U	53
µg/L	SW8260	1,1,1,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1,1-Trichloroethane	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1,2,2-Tetrachloroethane	0.50 U	0.50 U	0.50 U
µg/L	SW8260	1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloroethane	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloroethene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,1-Dichloropropene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2,3-Trichlorobenzene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2,3-Trichloropropane	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2,4-Trichlorobenzene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2,4-Trimethylbenzene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2-Dibromo-3-Chloropropane	5.0 U	5.0 U	5.0 U
µg/L	SW8260	1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2-Dichloroethane	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,2-Dichloropropane	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,3,5-Trimethylbenzene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,3-Dichlorobenzene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,3-Dichloropropane	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,4-Dichlorobenzene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	1,4-Dioxane	50 U	50 U	50 U
µg/L	SW8260	2,2-Dichloropropane	1.0 U	1.0 U	1.0 U
µg/L	SW8260	2-Butanone (MEK)	10 U	10 U	10 U
µg/L	SW8260	2-Chlorotoluene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	2-Hexanone	10 U	10 U	10 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
JUNE 2018 SURFACE WATER AND SEDIMENT SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID		C070218-CSW3	C070218-CSW3A	C070218-CSW5	C070218-CSWBKG-001
Units	Method	Parameter Name			
µg/L	SW8260	4-Chlorotoluene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	4-Isopropyltoluene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	4-Methyl-2-pentanone (MIBK)	10 U	10 U	10 U
µg/L	SW8260	Acetone	50 U	50 U	50 U
µg/L	SW8260	Benzene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Bromobenzene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Bromoform	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Bromomethane	2.0 U	2.0 U	2.0 U
µg/L	SW8260	Carbon disulfide	10 U	10 U	10 U
µg/L	SW8260	Carbon tetrachloride	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Chlorobenzene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Chlorobromomethane	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Chlorodibromomethane	0.50 U	0.50 U	0.50 U
µg/L	SW8260	Chloroethane	2.0 U	2.0 U	2.0 U
µg/L	SW8260	Chloroform	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Chloromethane	2.0 U	2.0 U	2.0 U
µg/L	SW8260	cis-1,2-Dichloroethene	1.0	1.0 U	1.0 U
µg/L	SW8260	cis-1,3-Dichloropropene	0.40 U	0.40 U	0.40 U
µg/L	SW8260	Dibromomethane	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Dichlorobromomethane	0.50 U	0.50 U	0.50 U
µg/L	SW8260	Dichlorodifluoromethane	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Ethyl ether	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Ethylbenzene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Ethylene Dibromide	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Hexachlorobutadiene	0.40 U	0.40 U	0.40 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
JUNE 2018 SURFACE WATER AND SEDIMENT SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID		C070218-CSW3	C070218-CSW3A	C070218-CSW5	C070218-CSWBKG-001
Units	Method	Parameter Name			
µg/L	SW8260	Isopropyl ether	10 U	10 U	10 U
µg/L	SW8260	Isopropylbenzene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	m-Xylene & p-Xylene	2.0 U	2.0 U	2.0 U
µg/L	SW8260	Methyl tert-butyl ether	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Methylene Chloride	1.0 U	1.0 U	1.0 U
µg/L	SW8260	n-Butylbenzene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	N-Propylbenzene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Naphthalene	5.0 U	5.0 U	5.0 U
µg/L	SW8260	o-Xylene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	sec-Butylbenzene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Styrene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Tert-amyl methyl ether	5.0 U	5.0 U	5.0 U
µg/L	SW8260	Tert-butyl ethyl ether	5.0 U	5.0 U	5.0 U
µg/L	SW8260	tert-Butylbenzene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Tetrachloroethene	0.46 J	1.0 U	1.0 U
µg/L	SW8260	Tetrahydrofuran	10 U	10 U	10 U
µg/L	SW8260	Toluene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U
µg/L	SW8260	trans-1,3-Dichloropropene	0.40 U	0.40 U	0.40 U
µg/L	SW8260	Trichloroethene	18	7.3	1.8
µg/L	SW8260	Trichlorofluoromethane	1.0 U	1.0 U	1.0 U
µg/L	SW8260	Vinyl chloride	1.0 U	1.0 U	1.0 U

Notes:

U = undetected

J = estimated value

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
JUNE 2018 SURFACE WATER AND SEDIMENT SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID	C070218-CSD1	C070218-CSD3	C070218-CSD3A	C070218-CSD5	C070218-CSDBKG-001		
Location	CSD-1	CSD-3	CSD-3A	CSD-5	CSD-BKG001		
Sample Date	07/02/2018	07/02/2018	07/02/2018	07/02/2018	07/02/2018		
Sample Delivery Group	480-138352-1	480-138352-1	480-138352-1	480-138352-1	480-138352-1		
Units	Method	Parameter Name					
µg/kg SW8260		1,1,1,2-Tetrachloroethane	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,1,1-Trichloroethane	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,1,2,2-Tetrachloroethane	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,1,2-Trichloroethane	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,1-Dichloroethane	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,1-Dichloroethene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,1-Dichloropropene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,2,3-Trichlorobenzene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,2,3-Trichloropropane	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,2,4-Trichlorobenzene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,2,4-Trimethylbenzene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,2-Dibromo-3-Chloropropane	14 U	13 U	17 U	20 U	22 U
µg/kg SW8260		1,2-Dichlorobenzene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,2-Dichloroethane	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,2-Dichloropropene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,3,5-Trimethylbenzene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,3-Dichlorobenzene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,3-Dichloropropane	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,4-Dichlorobenzene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		1,4-Dioxane	140 U	130 U	170 U	200 U	220 U
µg/kg SW8260		2,2-Dichloropropane	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		2-Butanone (MEK)	14 U	13 U	17 U	20 U	6.9 J
µg/kg SW8260		2-Chlorotoluene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg SW8260		2-Hexanone	14 U	13 U	17 U	20 U	22 U
µg/kg SW8260		4-Chlorotoluene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
JUNE 2018 SURFACE WATER AND SEDIMENT SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID	C070218-CSD1	C070218-CSD3	C070218-CSD3A	C070218-CSD5	C070218-CSDBKG-001
Location	CSD-1	CSD-3	CSD-3A	CSD-5	CSD-BKG001
Sample Date	07/02/2018	07/02/2018	07/02/2018	07/02/2018	07/02/2018
Sample Delivery Group	480-138352-1	480-138352-1	480-138352-1	480-138352-1	480-138352-1
Units	Method	Parameter Name			
µg/kg SW8260	4-Isopropyltoluene	2.9 U	2.6 U	3.5 U	4.1 U
µg/kg SW8260	4-Methyl-2-pentanone (MIBK)	14 U	13 U	17 U	20 U
µg/kg SW8260	Acetone	140 U	130 U	170 U	13 J
µg/kg SW8260	Benzene	2.9 U	2.6 U	3.5 U	4.1 U
µg/kg SW8260	Bromobenzene	2.9 U	2.6 U	3.5 U	4.1 U
µg/kg SW8260	Bromoform	2.9 U	2.6 U	3.5 U	4.1 U
µg/kg SW8260	Bromomethane	2.9 UJ	2.6 UJ	3.5 UJ	4.1 UJ
µg/kg SW8260	Carbon disulfide	2.9 U	2.6 U	3.5 U	4.1 U
µg/kg SW8260	Carbon tetrachloride	2.9 U	2.6 U	3.5 U	4.1 U
µg/kg SW8260	Chlorobenzene	2.9 U	2.6 U	3.5 U	4.1 U
µg/kg SW8260	Chlorobromomethane	2.9 U	2.6 U	3.5 U	4.1 U
µg/kg SW8260	Chlorodibromomethane	2.9 U	2.6 U	3.5 U	4.1 U
µg/kg SW8260	Chloroethane	2.9 UJ	2.6 UJ	3.5 UJ	4.1 UJ
µg/kg SW8260	Chloroform	2.9 U	2.6 U	3.5 U	4.1 U
µg/kg SW8260	Chloromethane	2.9 UJ	2.6 UJ	3.5 UJ	4.1 UJ
µg/kg SW8260	cis-1,2-Dichloroethene	2.9 U	2.6 U	3.5 U	4.1 U
µg/kg SW8260	cis-1,3-Dichloropropene	2.9 U	2.6 U	3.5 U	4.1 U
µg/kg SW8260	Dibromomethane	2.9 U	2.6 U	3.5 U	4.1 U
µg/kg SW8260	Dichlorobromomethane	2.9 U	2.6 U	3.5 U	4.1 U
µg/kg SW8260	Dichlorodifluoromethane	2.9 UJ	2.6 UJ	3.5 UJ	4.1 UJ
µg/kg SW8260	Ethyl ether	2.9 UJ	2.6 UJ	3.5 UJ	4.1 UJ
µg/kg SW8260	Ethylbenzene	2.9 U	2.6 U	3.5 U	4.1 U
µg/kg SW8260	Ethylene Dibromide	2.9 U	2.6 U	3.5 U	4.1 U
µg/kg SW8260	Hexachlorobutadiene	2.9 U	2.6 U	3.5 U	4.1 U
µg/kg SW8260	Isopropyl ether	2.9 U	2.6 U	3.5 U	4.1 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
JUNE 2018 SURFACE WATER AND SEDIMENT SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

Field Sample ID	C070218-CSD1	C070218-CSD3	C070218-CSD3A	C070218-CSD5	C070218-CSDBKG-001		
Location	CSD-1	CSD-3	CSD-3A	CSD-5	CSD-BKG001		
Sample Date	07/02/2018	07/02/2018	07/02/2018	07/02/2018	07/02/2018		
Sample Delivery Group	480-138352-1	480-138352-1	480-138352-1	480-138352-1	480-138352-1		
Units	Method	Parameter Name					
µg/kg	SW8260	Isopropylbenzene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg	SW8260	m-Xylene & p-Xylene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg	SW8260	Methyl tert-butyl ether	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg	SW8260	Methylene Chloride	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg	SW8260	n-Butylbenzene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg	SW8260	N-Propylbenzene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg	SW8260	Naphthalene	14 U	13 U	17 U	20 U	22 U
µg/kg	SW8260	o-Xylene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg	SW8260	sec-Butylbenzene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg	SW8260	Styrene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg	SW8260	Tert-amyl methyl ether	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg	SW8260	Tert-butyl ethyl ether	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg	SW8260	tert-Butylbenzene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg	SW8260	Tetrachloroethene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg	SW8260	Tetrahydrofuran	29 U	26 U	35 U	41 U	43 U
µg/kg	SW8260	Toluene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg	SW8260	trans-1,2-Dichloroethene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg	SW8260	trans-1,3-Dichloropropene	2.9 U	2.6 U	3.5 U	4.1 U	4.3 U
µg/kg	SW8260	Trichloroethene	2.9 U	4.2	2.5 J	1.6 J	4.3 U
µg/kg	SW8260	Trichlorofluoromethane	2.9 UJ	2.6 UJ	3.5 UJ	4.1 UJ	4.3 UJ
µg/kg	SW8260	Vinyl chloride	2.9 UJ	2.6 UJ	3.5 UJ	4.1 UJ	4.3 UJ

Notes:

U = undetected

J = estimated value

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
JUNE 2018 SURFACE WATER AND SEDIMENT SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

		Field Sample ID	C070218-CSD1	C070218-CSD3	C070218-CSD3A	C070218-CSD5	C070218-CSDBKG-001
Units	Method	Parameter Name	CSD-1	CSD-3	CSD-3A	CSD-5	CSD-BKG001
mg/kg	Lloyd Kahn	Total Organic Carbon	7200	6700	3900	34000	8700
mg/kg	SM3500-CR	Trivalent Chromium	7.6	84	110	170	8.2
mg/kg	SW6010	Antimony	0.57 U	0.59 U	0.63 U	0.64 U	0.61 U
mg/kg	SW6010	Arsenic	6.3	19	12	21	14
mg/kg	SW6010	Barium	16	35	31	39	23
mg/kg	SW6010	Beryllium	0.087 J	0.21 J	0.18 J	0.25 J	0.12 J
mg/kg	SW6010	Cadmium	0.23 U	0.039 J	0.13 J	0.15 J	0.062 J
mg/kg	SW6010	Chromium	7.6	84	110	170 J	8.2
mg/kg	SW6010	Lead	3.8	9.3	17	24	9.0
mg/kg	SW6010	Nickel	5.9	22	22	21	6.4
mg/kg	SW6010	Selenium	0.57 U	0.59 U	0.63 U	0.64 U	0.61 U
mg/kg	SW6010	Silver	0.57 U	0.59 U	0.63 U	0.64 U	0.61 U
mg/kg	SW6010	Thallium	1.1 U	1.2 U	1.3 U	1.3 U	1.2 U
mg/kg	SW6010	Vanadium	5.6	16	15	17	6.3
mg/kg	SW6010	Zinc	15	39	64	38	26
mg/kg	SW7196	Cr (VI)	0.46 U	0.48 U	0.32 J	0.50 U	0.48 U
mg/kg	SW7471	Mercury	0.022 U	0.024 U	0.023 U	0.021 J	0.010 J
µg/kg	SW8081	4,4'-DDD	38 U	76 U	82 U	41 U	39 U
µg/kg	SW8081	4,4'-DDE	38 U	76 U	82 U	7.3 J	39 U
µg/kg	SW8081	4,4'-DDT	38 U	76 U	82 U	4.3 J	39 U
µg/kg	SW8081	Aldrin	38 U	76 U	82 U	41 U	39 U
µg/kg	SW8081	alpha-BHC	38 U	76 U	82 U	41 U	39 U
µg/kg	SW8081	beta-BHC	38 U	76 U	82 U	41 U	9.0 J
µg/kg	SW8081	Chlordane (technical)	750 U	1500 U	1600 U	820 U	780 U
µg/kg	SW8081	delta-BHC	38 U	76 U	82 U	41 U	39 U

Prepared by: SandhyaSree 07/25/2018
Checked by: Chris Ricardi 07/25/2018

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
JUNE 2018 SURFACE WATER AND SEDIMENT SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

		Field Sample ID	C070218-CSD1	C070218-CSD3	C070218-CSD3A	C070218-CSD5	C070218-CSDBKG-001
Units	Method	Parameter Name	CSD-1	CSD-3	CSD-3A	CSD-5	CSD-BKG001
µg/kg	SW8081	Dieldrin	38 U	76 U	82 U	41 U	39 U
µg/kg	SW8081	Endosulfan I	38 U	76 U	82 U	41 U	39 U
µg/kg	SW8081	Endosulfan II	38 U	76 U	82 U	41 U	39 U
µg/kg	SW8081	Endosulfan sulfate	38 U	76 U	82 U	41 U	39 U
µg/kg	SW8081	Endrin	38 U	76 U	82 U	41 U	39 U
µg/kg	SW8081	Endrin ketone	38 U	76 U	82 U	41 U	39 U
µg/kg	SW8081	gamma-BHC (Lindane)	11 U	23 U	24 U	12 U	8.0 J
µg/kg	SW8081	Heptachlor	38 U	76 U	82 U	41 U	39 U
µg/kg	SW8081	Heptachlor epoxide	38 U	76 U	82 U	41 U	39 U
µg/kg	SW8081	Hexachlorobenzene	38 U	76 U	82 U	41 U	39 U
µg/kg	SW8081	Methoxychlor	38 U	76 U	82 U	41 U	39 U
µg/kg	SW8270	1,2,4-Trichlorobenzene	370 U	3900 U	3900 U	2000 U	1900 U
µg/kg	SW8270	1,2-Dichlorobenzene	370 U	3900 U	3900 U	2000 U	1900 U
µg/kg	SW8270	1,3-Dichlorobenzene	370 U	3900 U	3900 U	2000 U	1900 U
µg/kg	SW8270	1,4-Dichlorobenzene	370 U	3900 U	3900 U	2000 U	1900 U
µg/kg	SW8270	2,2'-oxybis[1-chloropropane]	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	2,4,5-Trichlorophenol	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	2,4,6-Trichlorophenol	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	2,4-Dichlorophenol	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	2,4-Dimethylphenol	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	2,4-Dinitrophenol	1800 U	20000 U	20000 U	9900 U	9700 U
µg/kg	SW8270	2,4-Dinitrotoluene	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	2,6-Dinitrotoluene	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	2-Chloronaphthalene	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	2-Chlorophenol	190 U	2000 U	2000 U	1000 U	990 U

Prepared by: SandhyaSree 07/25/2018
Checked by: Chris Ricardi 07/25/2018

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
JUNE 2018 SURFACE WATER AND SEDIMENT SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

		Field Sample ID	C070218-CSD1	C070218-CSD3	C070218-CSD3A	C070218-CSD5	C070218-CSDBKG-001
Units	Method	Parameter Name	CSD-1	CSD-3	CSD-3A	CSD-5	CSD-BKG001
µg/kg	SW8270	2-Methylnaphthalene	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	2-Methylphenol	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	2-Nitrophenol	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	3 & 4 Methylphenol	370 U	3900 U	3900 U	2000 U	1900 U
µg/kg	SW8270	3,3'-Dichlorobenzidine	370 U	3900 U	3900 U	2000 U	1900 U
µg/kg	SW8270	3-Methylphenol	370 U	3900 U	3900 U	2000 U	1900 U
µg/kg	SW8270	4-Bromophenyl phenyl ether	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	4-Chloroaniline	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	4-Methylphenol	370 U	3900 U	3900 U	2000 U	1900 U
µg/kg	SW8270	4-Nitrophenol	370 U	3900 U	3900 U	2000 U	1900 U
µg/kg	SW8270	Acenaphthene	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Acenaphthylene	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Acetophenone	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Aniline	370 UJ	3900 U	3900 U	2000 U	1900 U
µg/kg	SW8270	Anthracene	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Azobenzene	370 U	3900 U	3900 U	2000 U	1900 U
µg/kg	SW8270	Benzo[a]anthracene	180 J	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Benzo[a]pyrene	180 J	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Benzo[b]fluoranthene	220	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Benzo[g,h,i]perylene	120 J	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Benzo[k]fluoranthene	85 J	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Bis(2-chloroethoxy)methane	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Bis(2-chloroethyl)ether	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Bis(2-ethylhexyl) phthalate	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Butyl benzyl phthalate	190 U	2000 U	2000 U	1000 U	990 U

Prepared by: SandhyaSree 07/25/2018
Checked by: Chris Ricardi 07/25/2018

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
JUNE 2018 SURFACE WATER AND SEDIMENT SAMPLING DATA
HONEYWELL CONDUCTOR LAB
GROTON, MASSACHUSETTS

		Field Sample ID Location Sample Date Sample Delivery Group	C070218-CSD1 CSD-1 07/02/2018 480-138423-1	C070218-CSD3 CSD-3 07/02/2018 480-138423-1	C070218-CSD3A CSD-3A 07/02/2018 480-138423-1	C070218-CSD5 CSD-5 07/02/2018 480-138423-1	C070218-CSDBKG-001 CSD-BKG001 07/02/2018 480-138423-1
Units	Method	Parameter Name					
µg/kg	SW8270	Chrysene	190	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Di-n-butyl phthalate	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Di-n-octyl phthalate	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Dibenz(a,h)anthracene	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Dibenzofuran	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Diethyl phthalate	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Dimethyl phthalate	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Fluoranthene	380	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Fluorene	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Hexachlorobenzene	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Hexachlorobutadiene	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Hexachloroethane	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Indeno[1,2,3-cd]pyrene	120 J	2000 U	2000 U	200 J	990 U
µg/kg	SW8270	Isophorone	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Naphthalene	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Nitrobenzene	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Pentachlorophenol	370 U	3900 U	3900 U	2000 U	1900 U
µg/kg	SW8270	Phenanthrene	180 J	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Phenol	190 U	2000 U	2000 U	1000 U	990 U
µg/kg	SW8270	Pyrene	350	2000 U	2000 U	1000 U	990 U

Notes:

U = undetected

J = estimated value

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-138351-1

Client Project/Site: June 2018 Quarterly Surface Water

Sampling Event: Quarterly Surface Water

For:

Honeywell International Inc
Remediation & Evaluation Services
115 Tabor Road
Morris Plains, New Jersey 07950

Attn: Ms. Maria Kaouris

A handwritten signature in black ink, appearing to read "Rebecca Jones".

Authorized for release by:

7/19/2018 3:03:11 PM

Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II
(716)504-9838

john.schove@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Honeywell International Inc
Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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Case Narrative

Client: Honeywell International Inc
Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Job ID: 480-138351-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-138351-1

Comments

No additional comments.

Receipt

The samples were received on 7/3/2018 1:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.6° C.

GC/MS VOA

Method(s) 8260C: With the exception of diluted samples, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for Carbon disulfide, Isopropyl ether, Naphthalene, tert-Butyl ethyl ether, tert-Amyl methyl Ether, & Tetrahydrofuran

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-422764 recovered above the upper control limit for . Acetone and Dichlorodifluoromethane The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: C070218-CSW5 (480-138351-1), C070218-CSW3A (480-138351-2) and C070218-CSW3 (480-138351-3).

Method(s) 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-422764 recovered outside control limits but were greater than 10% for the following analytes: Acetone and Dichlorodifluoromethane . MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following samples are impacted: C070218-CSW5 (480-138351-1), C070218-CSW3A (480-138351-2) and C070218-CSW3 (480-138351-3).

Method(s) 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batch 480-422764 exceeded control limits for the following analytes: 2-Butanone and Tetrahydrofuran. Unlike the calibration standards, this is due to the co-elution with Ethyl Acetate and Methacrylonitrile in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following samples were affected : C070218-CSW5 (480-138351-1), C070218-CSW3A (480-138351-2) and C070218-CSW3 (480-138351-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010: At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

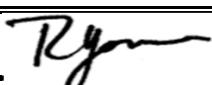
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Method(s) 7196A: The following samples were analyzed outside of analytical holding time due to calibration issues.C070218-CSW5 (480-138351-1) and C070218-CSW3A (480-138351-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

MassDEP Analytical Protocol Certification Form

Laboratory Name: TestAmerica Buffalo		Project #: 480-138351-1			
Project Location: Groton		RTN:			
This form provides certifications for the following data set: list Laboratory Sample ID Number(s): 480-138351-1(1-4)					
Matrices: <input checked="" type="checkbox"/> Groundwater/Surface Water <input type="checkbox"/> Soil/Sediment <input type="checkbox"/> Drinking Water <input type="checkbox"/> Air <input type="checkbox"/> Other:					
CAM Protocols (check all that apply below):					
8260 VOC CAM II A <input checked="" type="checkbox"/>	7470/7471 Hg CAM III B	Mass DEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input checked="" type="checkbox"/>	Mass DEP APH CAM IX A <input type="checkbox"/>
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	Mass DEP EPH CAM IV B <input type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>
6010 Metals CAM III A <input checked="" type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9014 Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>	
Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status					
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
E	a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?			<input type="checkbox"/> Yes	<input type="checkbox"/> No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Responses to Questions G, H and I below are required for "Presumptive Certainty" status					
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350					
H	Were all QC performance standards specified in the CAM protocol(s) achieved?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹
¹ All negative responses must be addressed in an attached laboratory narrative.					
I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.					
Signature:			Position:	Project Management Assistant	
Printed Name:	Rebecca Jones		Date:	7/19/18 15:00	

Detection Summary

Client: Honeywell International Inc

Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Client Sample ID: C070218-CSW5

Lab Sample ID: 480-138351-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.8		1.0	0.46	ug/L	1		8260C	Total/NA
Barium, Dissolved	22		10	0.70	ug/L	1		6010	Dissolved
Calcium, Dissolved	31000		500	100	ug/L	1		6010	Dissolved
Chromium, Dissolved	9.8		5.0	1.0	ug/L	1		6010	Dissolved
Copper, Dissolved	5.2	J B	10	1.6	ug/L	1		6010	Dissolved
Iron, Dissolved	42	J	50	19	ug/L	1		6010	Dissolved
Magnesium, Dissolved	2400		200	43	ug/L	1		6010	Dissolved
Manganese, Dissolved	170		3.0	0.40	ug/L	1		6010	Dissolved
Potassium, Dissolved	3400	B	500	100	ug/L	1		6010	Dissolved
Sodium, Dissolved	44000	B	1000	320	ug/L	1		6010	Dissolved
Zinc, Dissolved	53	B	50	1.5	ug/L	1		6010	Dissolved
Hardness as calcium carbonate	5000		0.50	0.10	mg/L	1		SM 2340B	Total/NA
Calcium hardness as calcium carbonate	5000		0.50	0.10	mg/L	1		SM 2340B	Total/NA
Chromium, hexavalent	0.022	H	0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: C070218-CSW3A

Lab Sample ID: 480-138351-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	7.3		1.0	0.46	ug/L	1		8260C	Total/NA
Barium, Dissolved	23		10	0.70	ug/L	1		6010	Dissolved
Calcium, Dissolved	27000		500	100	ug/L	1		6010	Dissolved
Chromium, Dissolved	230		5.0	1.0	ug/L	1		6010	Dissolved
Copper, Dissolved	6.9	J B	10	1.6	ug/L	1		6010	Dissolved
Magnesium, Dissolved	2200		200	43	ug/L	1		6010	Dissolved
Manganese, Dissolved	28		3.0	0.40	ug/L	1		6010	Dissolved
Nickel, Dissolved	1.5	J	10	1.3	ug/L	1		6010	Dissolved
Potassium, Dissolved	4200	B	500	100	ug/L	1		6010	Dissolved
Sodium, Dissolved	34000	B	1000	320	ug/L	1		6010	Dissolved
Zinc, Dissolved	41	J B	50	1.5	ug/L	1		6010	Dissolved
Hardness as calcium carbonate	2200		0.50	0.10	mg/L	1		SM 2340B	Total/NA
Calcium hardness as calcium carbonate	1500		0.50	0.10	mg/L	1		SM 2340B	Total/NA
Magnesium hardness as calcium carbonate	670		0.50	0.10	mg/L	1		SM 2340B	Total/NA
Chromium, hexavalent	0.24	H	0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: C070218-CSW3

Lab Sample ID: 480-138351-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.0		1.0	0.81	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.46	J	1.0	0.36	ug/L	1		8260C	Total/NA
Trichloroethene	18		1.0	0.46	ug/L	1		8260C	Total/NA
Barium, Dissolved	23		10	0.70	ug/L	1		6010	Dissolved
Calcium, Dissolved	26000		500	100	ug/L	1		6010	Dissolved
Chromium, Dissolved	230		5.0	1.0	ug/L	1		6010	Dissolved
Copper, Dissolved	11	B	10	1.6	ug/L	1		6010	Dissolved
Magnesium, Dissolved	2100		200	43	ug/L	1		6010	Dissolved
Manganese, Dissolved	63		3.0	0.40	ug/L	1		6010	Dissolved
Nickel, Dissolved	1.6	J	10	1.3	ug/L	1		6010	Dissolved
Potassium, Dissolved	4000	B	500	100	ug/L	1		6010	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: Honeywell International Inc

TestAmerica Job ID: 480-138351-1

Project/Site: June 2018 Quarterly Surface Water

Client Sample ID: C070218-CSW3 (Continued)

Lab Sample ID: 480-138351-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium, Dissolved	26000	B	1000	320	ug/L	1	6010		Dissolved
Zinc, Dissolved	52	B	50	1.5	ug/L	1	6010		Dissolved
Hardness as calcium carbonate	960		0.50	0.10	mg/L	1	SM 2340B		Total/NA
Calcium hardness as calcium carbonate	700		0.50	0.10	mg/L	1	SM 2340B		Total/NA
Magnesium hardness as calcium carbonate	260		0.50	0.10	mg/L	1	SM 2340B		Total/NA
Chromium, hexavalent	0.24		0.010	0.0050	mg/L	1	7196A		Total/NA

Client Sample ID: C070218-CSWBKG-001

Lab Sample ID: 480-138351-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic, Dissolved	6.4	J	10	5.6	ug/L	1	6010		Dissolved
Barium, Dissolved	37		10	0.70	ug/L	1	6010		Dissolved
Calcium, Dissolved	28000		500	100	ug/L	1	6010		Dissolved
Cobalt, Dissolved	0.68	J	4.0	0.63	ug/L	1	6010		Dissolved
Iron, Dissolved	160		50	19	ug/L	1	6010		Dissolved
Magnesium, Dissolved	2100		200	43	ug/L	1	6010		Dissolved
Manganese, Dissolved	1500		3.0	0.40	ug/L	1	6010		Dissolved
Potassium, Dissolved	3300	B	500	100	ug/L	1	6010		Dissolved
Sodium, Dissolved	29000	B	1000	320	ug/L	1	6010		Dissolved
Zinc, Dissolved	46	J B	50	1.5	ug/L	1	6010		Dissolved
Hardness as calcium carbonate	5600		0.50	0.10	mg/L	1	SM 2340B		Total/NA
Calcium hardness as calcium carbonate	5600		0.50	0.10	mg/L	1	SM 2340B		Total/NA
Chromium, hexavalent	0.0051	J	0.010	0.0050	mg/L	1	7196A		Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc

Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Client Sample ID: C070218-CSW5

Lab Sample ID: 480-138351-1

Matrix: Water

Date Collected: 07/02/18 09:15

Date Received: 07/03/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			07/03/18 16:55	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/03/18 16:55	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			07/03/18 16:55	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/03/18 16:55	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/03/18 16:55	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/03/18 16:55	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			07/03/18 16:55	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			07/03/18 16:55	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			07/03/18 16:55	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/03/18 16:55	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			07/03/18 16:55	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			07/03/18 16:55	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/03/18 16:55	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/03/18 16:55	1
1,2-Dichloropropene	ND		1.0	0.72	ug/L			07/03/18 16:55	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			07/03/18 16:55	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/03/18 16:55	1
1,3-Dichloropropene	ND		1.0	0.75	ug/L			07/03/18 16:55	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/03/18 16:55	1
1,4-Dioxane	ND		50	9.3	ug/L			07/03/18 16:55	1
2,2-Dichloropropene	ND		1.0	0.40	ug/L			07/03/18 16:55	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			07/03/18 16:55	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			07/03/18 16:55	1
2-Hexanone	ND		10	1.2	ug/L			07/03/18 16:55	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			07/03/18 16:55	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			07/03/18 16:55	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			07/03/18 16:55	1
Acetone	ND *		50	3.0	ug/L			07/03/18 16:55	1
Benzene	ND		1.0	0.41	ug/L			07/03/18 16:55	1
Bromobenzene	ND		1.0	0.80	ug/L			07/03/18 16:55	1
Bromoform	ND		1.0	0.26	ug/L			07/03/18 16:55	1
Bromomethane	ND		2.0	0.69	ug/L			07/03/18 16:55	1
Carbon disulfide	ND		10	0.19	ug/L			07/03/18 16:55	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/03/18 16:55	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/03/18 16:55	1
Chlorobromomethane	ND		1.0	0.87	ug/L			07/03/18 16:55	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			07/03/18 16:55	1
Chloroethane	ND		2.0	0.32	ug/L			07/03/18 16:55	1
Chloroform	ND		1.0	0.34	ug/L			07/03/18 16:55	1
Chloromethane	ND		2.0	0.35	ug/L			07/03/18 16:55	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/03/18 16:55	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			07/03/18 16:55	1
Dibromomethane	ND		1.0	0.41	ug/L			07/03/18 16:55	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			07/03/18 16:55	1
Dichlorodifluoromethane	ND *		1.0	0.68	ug/L			07/03/18 16:55	1
Ethyl ether	ND		1.0	0.72	ug/L			07/03/18 16:55	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/03/18 16:55	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			07/03/18 16:55	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			07/03/18 16:55	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc

TestAmerica Job ID: 480-138351-1

Project/Site: June 2018 Quarterly Surface Water

Client Sample ID: C070218-CSW5

Lab Sample ID: 480-138351-1

Date Collected: 07/02/18 09:15

Matrix: Water

Date Received: 07/03/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			07/03/18 16:55	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/03/18 16:55	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/03/18 16:55	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/03/18 16:55	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			07/03/18 16:55	1
Naphthalene	ND		5.0	0.43	ug/L			07/03/18 16:55	1
n-Butylbenzene	ND		1.0	0.64	ug/L			07/03/18 16:55	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/03/18 16:55	1
o-Xylene	ND		1.0	0.76	ug/L			07/03/18 16:55	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			07/03/18 16:55	1
Styrene	ND		1.0	0.73	ug/L			07/03/18 16:55	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			07/03/18 16:55	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			07/03/18 16:55	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			07/03/18 16:55	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/03/18 16:55	1
Tetrahydrofuran	ND *		10	1.3	ug/L			07/03/18 16:55	1
Toluene	ND		1.0	0.51	ug/L			07/03/18 16:55	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/03/18 16:55	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			07/03/18 16:55	1
Trichloroethene	1.8		1.0	0.46	ug/L			07/03/18 16:55	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/03/18 16:55	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/03/18 16:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		70 - 130					07/03/18 16:55	1
4-Bromofluorobenzene (Surr)	103		70 - 130					07/03/18 16:55	1
Toluene-d8 (Surr)	97		70 - 130					07/03/18 16:55	1
Dibromofluoromethane (Surr)	105		70 - 130					07/03/18 16:55	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum, Dissolved	ND		200	60	ug/L		07/05/18 10:35	07/05/18 18:42	1
Antimony, Dissolved	ND		20	6.8	ug/L		07/05/18 10:35	07/05/18 18:42	1
Arsenic, Dissolved	ND		10	5.6	ug/L		07/05/18 10:35	07/05/18 18:42	1
Barium, Dissolved	22		10	0.70	ug/L		07/05/18 10:35	07/05/18 18:42	1
Beryllium, Dissolved	ND		1.0	0.30	ug/L		07/05/18 10:35	07/05/18 18:42	1
Cadmium, Dissolved	ND		1.0	0.50	ug/L		07/05/18 10:35	07/05/18 18:42	1
Calcium, Dissolved	31000		500	100	ug/L		07/05/18 10:35	07/05/18 18:42	1
Chromium, Dissolved	9.8		5.0	1.0	ug/L		07/05/18 10:35	07/05/18 18:42	1
Cobalt, Dissolved	ND		4.0	0.63	ug/L		07/05/18 10:35	07/05/18 18:42	1
Copper, Dissolved	5.2 J B		10	1.6	ug/L		07/05/18 10:35	07/05/18 18:42	1
Iron, Dissolved	42 J		50	19	ug/L		07/05/18 10:35	07/05/18 18:42	1
Lead, Dissolved	ND		5.0	3.0	ug/L		07/05/18 10:35	07/05/18 18:42	1
Magnesium, Dissolved	2400		200	43	ug/L		07/05/18 10:35	07/05/18 18:42	1
Manganese, Dissolved	170		3.0	0.40	ug/L		07/05/18 10:35	07/05/18 18:42	1
Nickel, Dissolved	ND		10	1.3	ug/L		07/05/18 10:35	07/05/18 18:42	1
Potassium, Dissolved	3400 B		500	100	ug/L		07/05/18 10:35	07/05/18 18:42	1
Selenium, Dissolved	ND		10	8.7	ug/L		07/05/18 10:35	07/05/18 18:42	1
Silver, Dissolved	ND		5.0	1.7	ug/L		07/05/18 10:35	07/05/18 18:42	1
Sodium, Dissolved	44000 B		1000	320	ug/L		07/05/18 10:35	07/05/18 18:42	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc

TestAmerica Job ID: 480-138351-1

Project/Site: June 2018 Quarterly Surface Water

Client Sample ID: C070218-CSW5

Lab Sample ID: 480-138351-1

Date Collected: 07/02/18 09:15

Matrix: Water

Date Received: 07/03/18 01:30

Method: 6010 - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium, Dissolved	ND		20	10	ug/L		07/05/18 10:35	07/05/18 18:42	1
Vanadium, Dissolved	ND		10	1.5	ug/L		07/05/18 10:35	07/05/18 18:42	1
Zinc, Dissolved	53	B	50	1.5	ug/L		07/05/18 10:35	07/05/18 18:42	1

Method: SM 2340B - Total Hardness (as CaCO₃) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	5000		0.50	0.10	mg/L			07/18/18 08:27	1
Calcium hardness as calcium carbonate	5000		0.50	0.10	mg/L			07/18/18 08:27	1
Magnesium hardness as calcium carbonate	ND		0.50	0.10	mg/L			07/18/18 08:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.022	H	0.010	0.0050	mg/L			07/03/18 12:00	1

Client Sample Results

Client: Honeywell International Inc

Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Client Sample ID: C070218-CSW3A

Lab Sample ID: 480-138351-2

Matrix: Water

Date Collected: 07/02/18 11:00

Date Received: 07/03/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			07/03/18 17:19	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/03/18 17:19	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			07/03/18 17:19	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/03/18 17:19	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/03/18 17:19	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/03/18 17:19	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			07/03/18 17:19	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			07/03/18 17:19	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			07/03/18 17:19	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/03/18 17:19	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			07/03/18 17:19	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			07/03/18 17:19	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/03/18 17:19	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/03/18 17:19	1
1,2-Dichloropropene	ND		1.0	0.72	ug/L			07/03/18 17:19	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			07/03/18 17:19	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/03/18 17:19	1
1,3-Dichloropropene	ND		1.0	0.75	ug/L			07/03/18 17:19	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/03/18 17:19	1
1,4-Dioxane	ND		50	9.3	ug/L			07/03/18 17:19	1
2,2-Dichloropropene	ND		1.0	0.40	ug/L			07/03/18 17:19	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			07/03/18 17:19	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			07/03/18 17:19	1
2-Hexanone	ND		10	1.2	ug/L			07/03/18 17:19	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			07/03/18 17:19	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			07/03/18 17:19	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			07/03/18 17:19	1
Acetone	ND *		50	3.0	ug/L			07/03/18 17:19	1
Benzene	ND		1.0	0.41	ug/L			07/03/18 17:19	1
Bromobenzene	ND		1.0	0.80	ug/L			07/03/18 17:19	1
Bromoform	ND		1.0	0.26	ug/L			07/03/18 17:19	1
Bromomethane	ND		2.0	0.69	ug/L			07/03/18 17:19	1
Carbon disulfide	ND		10	0.19	ug/L			07/03/18 17:19	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/03/18 17:19	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/03/18 17:19	1
Chlorobromomethane	ND		1.0	0.87	ug/L			07/03/18 17:19	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			07/03/18 17:19	1
Chloroethane	ND		2.0	0.32	ug/L			07/03/18 17:19	1
Chloroform	ND		1.0	0.34	ug/L			07/03/18 17:19	1
Chloromethane	ND		2.0	0.35	ug/L			07/03/18 17:19	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/03/18 17:19	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			07/03/18 17:19	1
Dibromomethane	ND		1.0	0.41	ug/L			07/03/18 17:19	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			07/03/18 17:19	1
Dichlorodifluoromethane	ND *		1.0	0.68	ug/L			07/03/18 17:19	1
Ethyl ether	ND		1.0	0.72	ug/L			07/03/18 17:19	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/03/18 17:19	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			07/03/18 17:19	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			07/03/18 17:19	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc

TestAmerica Job ID: 480-138351-1

Project/Site: June 2018 Quarterly Surface Water

Client Sample ID: C070218-CSW3A

Lab Sample ID: 480-138351-2

Date Collected: 07/02/18 11:00

Matrix: Water

Date Received: 07/03/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			07/03/18 17:19	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/03/18 17:19	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/03/18 17:19	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/03/18 17:19	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			07/03/18 17:19	1
Naphthalene	ND		5.0	0.43	ug/L			07/03/18 17:19	1
n-Butylbenzene	ND		1.0	0.64	ug/L			07/03/18 17:19	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/03/18 17:19	1
o-Xylene	ND		1.0	0.76	ug/L			07/03/18 17:19	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			07/03/18 17:19	1
Styrene	ND		1.0	0.73	ug/L			07/03/18 17:19	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			07/03/18 17:19	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			07/03/18 17:19	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			07/03/18 17:19	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/03/18 17:19	1
Tetrahydrofuran	ND *		10	1.3	ug/L			07/03/18 17:19	1
Toluene	ND		1.0	0.51	ug/L			07/03/18 17:19	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/03/18 17:19	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			07/03/18 17:19	1
Trichloroethene	7.3		1.0	0.46	ug/L			07/03/18 17:19	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/03/18 17:19	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/03/18 17:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 130					07/03/18 17:19	1
4-Bromofluorobenzene (Surr)	104		70 - 130					07/03/18 17:19	1
Toluene-d8 (Surr)	99		70 - 130					07/03/18 17:19	1
Dibromofluoromethane (Surr)	103		70 - 130					07/03/18 17:19	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum, Dissolved	ND		200	60	ug/L		07/05/18 10:35	07/05/18 18:46	1
Antimony, Dissolved	ND		20	6.8	ug/L		07/05/18 10:35	07/05/18 18:46	1
Arsenic, Dissolved	ND		10	5.6	ug/L		07/05/18 10:35	07/05/18 18:46	1
Barium, Dissolved	23		10	0.70	ug/L		07/05/18 10:35	07/05/18 18:46	1
Beryllium, Dissolved	ND		1.0	0.30	ug/L		07/05/18 10:35	07/05/18 18:46	1
Cadmium, Dissolved	ND		1.0	0.50	ug/L		07/05/18 10:35	07/05/18 18:46	1
Calcium, Dissolved	27000		500	100	ug/L		07/05/18 10:35	07/05/18 18:46	1
Chromium, Dissolved	230		5.0	1.0	ug/L		07/05/18 10:35	07/05/18 18:46	1
Cobalt, Dissolved	ND		4.0	0.63	ug/L		07/05/18 10:35	07/05/18 18:46	1
Copper, Dissolved	6.9 J B		10	1.6	ug/L		07/05/18 10:35	07/05/18 18:46	1
Iron, Dissolved	ND		50	19	ug/L		07/05/18 10:35	07/05/18 18:46	1
Lead, Dissolved	ND		5.0	3.0	ug/L		07/05/18 10:35	07/05/18 18:46	1
Magnesium, Dissolved	2200		200	43	ug/L		07/05/18 10:35	07/05/18 18:46	1
Manganese, Dissolved	28		3.0	0.40	ug/L		07/05/18 10:35	07/05/18 18:46	1
Nickel, Dissolved	1.5 J		10	1.3	ug/L		07/05/18 10:35	07/05/18 18:46	1
Potassium, Dissolved	4200 B		500	100	ug/L		07/05/18 10:35	07/05/18 18:46	1
Selenium, Dissolved	ND		10	8.7	ug/L		07/05/18 10:35	07/05/18 18:46	1
Silver, Dissolved	ND		5.0	1.7	ug/L		07/05/18 10:35	07/05/18 18:46	1
Sodium, Dissolved	34000 B		1000	320	ug/L		07/05/18 10:35	07/05/18 18:46	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc

TestAmerica Job ID: 480-138351-1

Project/Site: June 2018 Quarterly Surface Water

Client Sample ID: C070218-CSW3A

Lab Sample ID: 480-138351-2

Date Collected: 07/02/18 11:00

Matrix: Water

Date Received: 07/03/18 01:30

Method: 6010 - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium, Dissolved	ND		20	10	ug/L		07/05/18 10:35	07/05/18 18:46	1
Vanadium, Dissolved	ND		10	1.5	ug/L		07/05/18 10:35	07/05/18 18:46	1
Zinc, Dissolved	41	J B	50	1.5	ug/L		07/05/18 10:35	07/05/18 18:46	1

Method: SM 2340B - Total Hardness (as CaCO₃) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	2200		0.50	0.10	mg/L			07/18/18 08:27	1
Calcium hardness as calcium carbonate	1500		0.50	0.10	mg/L			07/18/18 08:27	1
Magnesium hardness as calcium carbonate	670		0.50	0.10	mg/L			07/18/18 08:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.24	H	0.010	0.0050	mg/L			07/03/18 12:00	1

Client Sample Results

Client: Honeywell International Inc

Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Client Sample ID: C070218-CSW3

Date Collected: 07/02/18 12:00

Date Received: 07/03/18 01:30

Lab Sample ID: 480-138351-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			07/03/18 17:42	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/03/18 17:42	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			07/03/18 17:42	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/03/18 17:42	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/03/18 17:42	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/03/18 17:42	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			07/03/18 17:42	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			07/03/18 17:42	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			07/03/18 17:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/03/18 17:42	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			07/03/18 17:42	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			07/03/18 17:42	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/03/18 17:42	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/03/18 17:42	1
1,2-Dichloropropene	ND		1.0	0.72	ug/L			07/03/18 17:42	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			07/03/18 17:42	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/03/18 17:42	1
1,3-Dichloropropene	ND		1.0	0.75	ug/L			07/03/18 17:42	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/03/18 17:42	1
1,4-Dioxane	ND		50	9.3	ug/L			07/03/18 17:42	1
2,2-Dichloropropene	ND		1.0	0.40	ug/L			07/03/18 17:42	1
2-Butanone (MEK)	ND *		10	1.3	ug/L			07/03/18 17:42	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			07/03/18 17:42	1
2-Hexanone	ND		10	1.2	ug/L			07/03/18 17:42	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			07/03/18 17:42	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			07/03/18 17:42	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			07/03/18 17:42	1
Acetone	ND *		50	3.0	ug/L			07/03/18 17:42	1
Benzene	ND		1.0	0.41	ug/L			07/03/18 17:42	1
Bromobenzene	ND		1.0	0.80	ug/L			07/03/18 17:42	1
Bromoform	ND		1.0	0.26	ug/L			07/03/18 17:42	1
Bromomethane	ND		2.0	0.69	ug/L			07/03/18 17:42	1
Carbon disulfide	ND		10	0.19	ug/L			07/03/18 17:42	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/03/18 17:42	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/03/18 17:42	1
Chlorobromomethane	ND		1.0	0.87	ug/L			07/03/18 17:42	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			07/03/18 17:42	1
Chloroethane	ND		2.0	0.32	ug/L			07/03/18 17:42	1
Chloroform	ND		1.0	0.34	ug/L			07/03/18 17:42	1
Chloromethane	ND		2.0	0.35	ug/L			07/03/18 17:42	1
cis-1,2-Dichloroethene	1.0		1.0	0.81	ug/L			07/03/18 17:42	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			07/03/18 17:42	1
Dibromomethane	ND		1.0	0.41	ug/L			07/03/18 17:42	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			07/03/18 17:42	1
Dichlorodifluoromethane	ND *		1.0	0.68	ug/L			07/03/18 17:42	1
Ethyl ether	ND		1.0	0.72	ug/L			07/03/18 17:42	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/03/18 17:42	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			07/03/18 17:42	1
Hexachlorobutadiene	ND		0.40	0.28	ug/L			07/03/18 17:42	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc

TestAmerica Job ID: 480-138351-1

Project/Site: June 2018 Quarterly Surface Water

Client Sample ID: C070218-CSW3

Lab Sample ID: 480-138351-3

Date Collected: 07/02/18 12:00

Matrix: Water

Date Received: 07/03/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10	0.59	ug/L			07/03/18 17:42	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/03/18 17:42	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/03/18 17:42	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/03/18 17:42	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			07/03/18 17:42	1
Naphthalene	ND		5.0	0.43	ug/L			07/03/18 17:42	1
n-Butylbenzene	ND		1.0	0.64	ug/L			07/03/18 17:42	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/03/18 17:42	1
o-Xylene	ND		1.0	0.76	ug/L			07/03/18 17:42	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			07/03/18 17:42	1
Styrene	ND		1.0	0.73	ug/L			07/03/18 17:42	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			07/03/18 17:42	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			07/03/18 17:42	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			07/03/18 17:42	1
Tetrachloroethene	0.46 J		1.0	0.36	ug/L			07/03/18 17:42	1
Tetrahydrofuran	ND *		10	1.3	ug/L			07/03/18 17:42	1
Toluene	ND		1.0	0.51	ug/L			07/03/18 17:42	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/03/18 17:42	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			07/03/18 17:42	1
Trichloroethene	18		1.0	0.46	ug/L			07/03/18 17:42	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/03/18 17:42	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/03/18 17:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 130					07/03/18 17:42	1
4-Bromofluorobenzene (Surr)	100		70 - 130					07/03/18 17:42	1
Toluene-d8 (Surr)	98		70 - 130					07/03/18 17:42	1
Dibromofluoromethane (Surr)	104		70 - 130					07/03/18 17:42	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum, Dissolved	ND		200	60	ug/L		07/05/18 10:35	07/05/18 18:50	1
Antimony, Dissolved	ND		20	6.8	ug/L		07/05/18 10:35	07/05/18 18:50	1
Arsenic, Dissolved	ND		10	5.6	ug/L		07/05/18 10:35	07/05/18 18:50	1
Barium, Dissolved	23		10	0.70	ug/L		07/05/18 10:35	07/05/18 18:50	1
Beryllium, Dissolved	ND		1.0	0.30	ug/L		07/05/18 10:35	07/05/18 18:50	1
Cadmium, Dissolved	ND		1.0	0.50	ug/L		07/05/18 10:35	07/05/18 18:50	1
Calcium, Dissolved	26000		500	100	ug/L		07/05/18 10:35	07/05/18 18:50	1
Chromium, Dissolved	230		5.0	1.0	ug/L		07/05/18 10:35	07/05/18 18:50	1
Cobalt, Dissolved	ND		4.0	0.63	ug/L		07/05/18 10:35	07/05/18 18:50	1
Copper, Dissolved	11 B		10	1.6	ug/L		07/05/18 10:35	07/05/18 18:50	1
Iron, Dissolved	ND		50	19	ug/L		07/05/18 10:35	07/05/18 18:50	1
Lead, Dissolved	ND		5.0	3.0	ug/L		07/05/18 10:35	07/05/18 18:50	1
Magnesium, Dissolved	2100		200	43	ug/L		07/05/18 10:35	07/05/18 18:50	1
Manganese, Dissolved	63		3.0	0.40	ug/L		07/05/18 10:35	07/05/18 18:50	1
Nickel, Dissolved	1.6 J		10	1.3	ug/L		07/05/18 10:35	07/05/18 18:50	1
Potassium, Dissolved	4000 B		500	100	ug/L		07/05/18 10:35	07/05/18 18:50	1
Selenium, Dissolved	ND		10	8.7	ug/L		07/05/18 10:35	07/05/18 18:50	1
Silver, Dissolved	ND		5.0	1.7	ug/L		07/05/18 10:35	07/05/18 18:50	1
Sodium, Dissolved	26000 B		1000	320	ug/L		07/05/18 10:35	07/05/18 18:50	1

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc

TestAmerica Job ID: 480-138351-1

Project/Site: June 2018 Quarterly Surface Water

Client Sample ID: C070218-CSW3

Lab Sample ID: 480-138351-3

Date Collected: 07/02/18 12:00

Matrix: Water

Date Received: 07/03/18 01:30

Method: 6010 - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium, Dissolved	ND		20	10	ug/L		07/05/18 10:35	07/05/18 18:50	1
Vanadium, Dissolved	ND		10	1.5	ug/L		07/05/18 10:35	07/05/18 18:50	1
Zinc, Dissolved	52	B	50	1.5	ug/L		07/05/18 10:35	07/05/18 18:50	1

Method: SM 2340B - Total Hardness (as CaCO₃) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	960		0.50	0.10	mg/L			07/18/18 08:27	1
Calcium hardness as calcium carbonate	700		0.50	0.10	mg/L			07/18/18 08:27	1
Magnesium hardness as calcium carbonate	260		0.50	0.10	mg/L			07/18/18 08:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.24		0.010	0.0050	mg/L			07/03/18 12:00	1

Client Sample Results

Client: Honeywell International Inc

TestAmerica Job ID: 480-138351-1

Project/Site: June 2018 Quarterly Surface Water

Client Sample ID: C070218-CSWBKG-001

Lab Sample ID: 480-138351-4

Matrix: Water

Date Collected: 07/02/18 14:00

Date Received: 07/03/18 01:30

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum, Dissolved	ND		200	60	ug/L		07/05/18 10:35	07/05/18 18:53	1
Antimony, Dissolved	ND		20	6.8	ug/L		07/05/18 10:35	07/05/18 18:53	1
Arsenic, Dissolved	6.4 J		10	5.6	ug/L		07/05/18 10:35	07/05/18 18:53	1
Barium, Dissolved	37		10	0.70	ug/L		07/05/18 10:35	07/05/18 18:53	1
Beryllium, Dissolved	ND		1.0	0.30	ug/L		07/05/18 10:35	07/05/18 18:53	1
Cadmium, Dissolved	ND		1.0	0.50	ug/L		07/05/18 10:35	07/05/18 18:53	1
Calcium, Dissolved	28000		500	100	ug/L		07/05/18 10:35	07/05/18 18:53	1
Chromium, Dissolved	ND		5.0	1.0	ug/L		07/05/18 10:35	07/05/18 18:53	1
Cobalt, Dissolved	0.68 J		4.0	0.63	ug/L		07/05/18 10:35	07/05/18 18:53	1
Copper, Dissolved	ND		10	1.6	ug/L		07/05/18 10:35	07/05/18 18:53	1
Iron, Dissolved	160		50	19	ug/L		07/05/18 10:35	07/05/18 18:53	1
Lead, Dissolved	ND		5.0	3.0	ug/L		07/05/18 10:35	07/05/18 18:53	1
Magnesium, Dissolved	2100		200	43	ug/L		07/05/18 10:35	07/05/18 18:53	1
Manganese, Dissolved	1500		3.0	0.40	ug/L		07/05/18 10:35	07/05/18 18:53	1
Nickel, Dissolved	ND		10	1.3	ug/L		07/05/18 10:35	07/05/18 18:53	1
Potassium, Dissolved	3300 B		500	100	ug/L		07/05/18 10:35	07/05/18 18:53	1
Selenium, Dissolved	ND		10	8.7	ug/L		07/05/18 10:35	07/05/18 18:53	1
Silver, Dissolved	ND		5.0	1.7	ug/L		07/05/18 10:35	07/05/18 18:53	1
Sodium, Dissolved	29000 B		1000	320	ug/L		07/05/18 10:35	07/05/18 18:53	1
Thallium, Dissolved	ND		20	10	ug/L		07/05/18 10:35	07/05/18 18:53	1
Vanadium, Dissolved	ND		10	1.5	ug/L		07/05/18 10:35	07/05/18 18:53	1
Zinc, Dissolved	46 JB		50	1.5	ug/L		07/05/18 10:35	07/05/18 18:53	1

Method: SM 2340B - Total Hardness (as CaCO₃) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	5600		0.50	0.10	mg/L			07/18/18 08:27	1
Calcium hardness as calcium carbonate	5600		0.50	0.10	mg/L			07/18/18 08:27	1
Magnesium hardness as calcium carbonate	ND		0.50	0.10	mg/L			07/18/18 08:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.0051	J	0.010	0.0050	mg/L			07/03/18 12:00	1

Surrogate Summary

Client: Honeywell International Inc

TestAmerica Job ID: 480-138351-1

Project/Site: June 2018 Quarterly Surface Water

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (70-130)	BFB (70-130)	TOL (70-130)	DBFM (70-130)				
480-138351-1	C070218-CSW5	110	103	97	105				
480-138351-2	C070218-CSW3A	106	104	99	103				
480-138351-3	C070218-CSW3	107	100	98	104				
LCS 480-422764/6	Lab Control Sample	110	101	96	107				
LCSD 480-422764/5	Lab Control Sample Dup	105	99	95	107				
MB 480-422764/8	Method Blank	107	103	96	103				

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane (Surr)

QC Sample Results

Client: Honeywell International Inc

Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-422764/8

Matrix: Water

Analysis Batch: 422764

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0	0.35	ug/L			07/03/18 15:07	1
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			07/03/18 15:07	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			07/03/18 15:07	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			07/03/18 15:07	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			07/03/18 15:07	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			07/03/18 15:07	1
1,1-Dichloropropene	ND		1.0	0.72	ug/L			07/03/18 15:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.41	ug/L			07/03/18 15:07	1
1,2,3-Trichloropropane	ND		1.0	0.89	ug/L			07/03/18 15:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			07/03/18 15:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			07/03/18 15:07	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.39	ug/L			07/03/18 15:07	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			07/03/18 15:07	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			07/03/18 15:07	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			07/03/18 15:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			07/03/18 15:07	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			07/03/18 15:07	1
1,3-Dichloropropane	ND		1.0	0.75	ug/L			07/03/18 15:07	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			07/03/18 15:07	1
1,4-Dioxane	ND		50	9.3	ug/L			07/03/18 15:07	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			07/03/18 15:07	1
2-Butanone (MEK)	ND		10	1.3	ug/L			07/03/18 15:07	1
2-Chlorotoluene	ND		1.0	0.86	ug/L			07/03/18 15:07	1
2-Hexanone	ND		10	1.2	ug/L			07/03/18 15:07	1
4-Chlorotoluene	ND		1.0	0.84	ug/L			07/03/18 15:07	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			07/03/18 15:07	1
4-Methyl-2-pentanone (MIBK)	ND		10	2.1	ug/L			07/03/18 15:07	1
Acetone	ND		50	3.0	ug/L			07/03/18 15:07	1
Benzene	ND		1.0	0.41	ug/L			07/03/18 15:07	1
Bromobenzene	ND		1.0	0.80	ug/L			07/03/18 15:07	1
Bromoform	ND		1.0	0.26	ug/L			07/03/18 15:07	1
Bromomethane	ND		2.0	0.69	ug/L			07/03/18 15:07	1
Carbon disulfide	ND		10	0.19	ug/L			07/03/18 15:07	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			07/03/18 15:07	1
Chlorobenzene	ND		1.0	0.75	ug/L			07/03/18 15:07	1
Chlorobromomethane	ND		1.0	0.87	ug/L			07/03/18 15:07	1
Chlorodibromomethane	ND		0.50	0.32	ug/L			07/03/18 15:07	1
Chloroethane	ND		2.0	0.32	ug/L			07/03/18 15:07	1
Chloroform	ND		1.0	0.34	ug/L			07/03/18 15:07	1
Chloromethane	ND		2.0	0.35	ug/L			07/03/18 15:07	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			07/03/18 15:07	1
cis-1,3-Dichloropropene	ND		0.40	0.36	ug/L			07/03/18 15:07	1
Dibromomethane	ND		1.0	0.41	ug/L			07/03/18 15:07	1
Dichlorobromomethane	ND		0.50	0.39	ug/L			07/03/18 15:07	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/03/18 15:07	1
Ethyl ether	ND		1.0	0.72	ug/L			07/03/18 15:07	1
Ethylbenzene	ND		1.0	0.74	ug/L			07/03/18 15:07	1
Ethylene Dibromide	ND		1.0	0.73	ug/L			07/03/18 15:07	1

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc

Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-422764/8

Matrix: Water

Analysis Batch: 422764

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Hexachlorobutadiene	ND		0.40	0.28	ug/L			07/03/18 15:07	1
Isopropyl ether	ND		10	0.59	ug/L			07/03/18 15:07	1
Isopropylbenzene	ND		1.0	0.79	ug/L			07/03/18 15:07	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			07/03/18 15:07	1
Methylene Chloride	ND		1.0	0.44	ug/L			07/03/18 15:07	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			07/03/18 15:07	1
Naphthalene	ND		5.0	0.43	ug/L			07/03/18 15:07	1
n-Butylbenzene	ND		1.0	0.64	ug/L			07/03/18 15:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/03/18 15:07	1
o-Xylene	ND		1.0	0.76	ug/L			07/03/18 15:07	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			07/03/18 15:07	1
Styrene	ND		1.0	0.73	ug/L			07/03/18 15:07	1
Tert-amyl methyl ether	ND		5.0	0.27	ug/L			07/03/18 15:07	1
Tert-butyl ethyl ether	ND		5.0	0.29	ug/L			07/03/18 15:07	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			07/03/18 15:07	1
Tetrachloroethene	ND		1.0	0.36	ug/L			07/03/18 15:07	1
Tetrahydrofuran	ND		10	1.3	ug/L			07/03/18 15:07	1
Toluene	ND		1.0	0.51	ug/L			07/03/18 15:07	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			07/03/18 15:07	1
trans-1,3-Dichloropropene	ND		0.40	0.37	ug/L			07/03/18 15:07	1
Trichloroethene	ND		1.0	0.46	ug/L			07/03/18 15:07	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			07/03/18 15:07	1
Vinyl chloride	ND		1.0	0.90	ug/L			07/03/18 15:07	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared		Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 130			07/03/18 15:07	1
4-Bromofluorobenzene (Surr)	103		70 - 130			07/03/18 15:07	1
Toluene-d8 (Surr)	96		70 - 130			07/03/18 15:07	1
Dibromofluoromethane (Surr)	103		70 - 130			07/03/18 15:07	1

Lab Sample ID: LCS 480-422764/6

Matrix: Water

Analysis Batch: 422764

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
1,1,1,2-Tetrachloroethane	25.0	28.7		ug/L		115	70 - 130
1,1,1-Trichloroethane	25.0	26.8		ug/L		107	70 - 130
1,1,2,2-Tetrachloroethane	25.0	26.1		ug/L		104	70 - 130
1,1,2-Trichloroethane	25.0	26.0		ug/L		104	70 - 130
1,1-Dichloroethane	25.0	27.1		ug/L		108	70 - 130
1,1-Dichloroethene	25.0	23.5		ug/L		94	70 - 130
1,1-Dichloropropene	25.0	24.1		ug/L		96	70 - 130
1,2,3-Trichlorobenzene	25.0	26.1		ug/L		104	70 - 130
1,2,3-Trichloropropane	25.0	27.7		ug/L		111	70 - 130
1,2,4-Trichlorobenzene	25.0	26.6		ug/L		107	70 - 130
1,2,4-Trimethylbenzene	25.0	26.6		ug/L		107	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	26.0		ug/L		104	70 - 130
1,2-Dichlorobenzene	25.0	26.3		ug/L		105	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc

Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-422764/6

Matrix: Water

Analysis Batch: 422764

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits	5
		Result	Qualifier					
1,2-Dichloroethane	25.0	27.5		ug/L		110	70 - 130	6
1,2-Dichloropropane	25.0	27.8		ug/L		111	70 - 130	7
1,3,5-Trimethylbenzene	25.0	26.3		ug/L		105	70 - 130	8
1,3-Dichlorobenzene	25.0	26.6		ug/L		106	70 - 130	9
1,3-Dichloropropane	25.0	25.5		ug/L		102	70 - 130	10
1,4-Dichlorobenzene	25.0	25.9		ug/L		104	70 - 130	11
1,4-Dioxane	500	547		ug/L		109	70 - 130	12
2,2-Dichloropropane	25.0	27.2		ug/L		109	70 - 130	13
2-Butanone (MEK)	125	269	*	ug/L		215	70 - 130	14
2-Chlorotoluene	25.0	25.1		ug/L		100	70 - 130	15
2-Hexanone	125	145		ug/L		116	70 - 130	1
4-Chlorotoluene	25.0	25.1		ug/L		101	70 - 130	2
4-Isopropyltoluene	25.0	26.5		ug/L		106	70 - 130	3
4-Methyl-2-pentanone (MIBK)	125	143		ug/L		114	70 - 130	4
Acetone	125	171	*	ug/L		137	70 - 130	5
Benzene	25.0	25.1		ug/L		101	70 - 130	6
Bromobenzene	25.0	25.9		ug/L		103	70 - 130	7
Bromoform	25.0	26.8		ug/L		107	70 - 130	8
Bromomethane	25.0	23.7		ug/L		95	70 - 130	9
Carbon disulfide	25.0	24.0		ug/L		96	70 - 130	10
Carbon tetrachloride	25.0	28.5		ug/L		114	70 - 130	11
Chlorobenzene	25.0	25.5		ug/L		102	70 - 130	12
Chlorobromomethane	25.0	26.4		ug/L		106	70 - 130	13
Chlorodibromomethane	25.0	23.9		ug/L		96	70 - 130	14
Chloroethane	25.0	25.5		ug/L		102	70 - 130	15
Chloroform	25.0	25.8		ug/L		103	70 - 130	1
Chloromethane	25.0	26.1		ug/L		104	70 - 130	2
cis-1,2-Dichloroethene	25.0	24.8		ug/L		99	70 - 130	3
cis-1,3-Dichloropropene	25.0	25.3		ug/L		101	70 - 130	4
Dibromomethane	25.0	28.7		ug/L		115	70 - 130	5
Dichlorobromomethane	25.0	28.9		ug/L		116	70 - 130	6
Dichlorodifluoromethane	25.0	32.4		ug/L		130	70 - 130	7
Ethyl ether	25.0	25.4		ug/L		102	70 - 130	8
Ethylbenzene	25.0	24.6		ug/L		98	70 - 130	9
Ethylene Dibromide	25.0	26.9		ug/L		108	70 - 130	10
Hexachlorobutadiene	25.0	24.7		ug/L		99	70 - 130	11
Isopropyl ether	25.0	29.0		ug/L		116	70 - 130	12
Isopropylbenzene	25.0	25.0		ug/L		100	70 - 130	13
Methyl tert-butyl ether	25.0	25.9		ug/L		104	70 - 130	14
Methylene Chloride	25.0	23.9		ug/L		96	70 - 130	15
m-Xylene & p-Xylene	25.0	24.6		ug/L		98	70 - 130	1
Naphthalene	25.0	28.3		ug/L		113	70 - 130	2
n-Butylbenzene	25.0	26.6		ug/L		106	70 - 130	3
N-Propylbenzene	25.0	25.3		ug/L		101	70 - 130	4
o-Xylene	25.0	25.5		ug/L		102	70 - 130	5
sec-Butylbenzene	25.0	26.2		ug/L		105	70 - 130	6
Styrene	25.0	26.5		ug/L		106	70 - 130	7
Tert-amyl methyl ether	25.0	26.3		ug/L		105	70 - 130	8

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc

TestAmerica Job ID: 480-138351-1

Project/Site: June 2018 Quarterly Surface Water

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-422764/6

Matrix: Water

Analysis Batch: 422764

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS		Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
Tert-butyl ethyl ether	25.0	28.1		ug/L		112	70 - 130
tert-Butylbenzene	25.0	26.2		ug/L		105	70 - 130
Tetrachloroethene	25.0	27.2		ug/L		109	70 - 130
Tetrahydrofuran	50.0	77.7	*	ug/L		155	70 - 130
Toluene	25.0	23.9		ug/L		95	70 - 130
trans-1,2-Dichloroethene	25.0	26.6		ug/L		106	70 - 130
trans-1,3-Dichloropropene	25.0	23.9		ug/L		96	70 - 130
Trichloroethene	25.0	26.2		ug/L		105	70 - 130
Trichlorofluoromethane	25.0	27.9		ug/L		111	70 - 130
Vinyl chloride	25.0	25.7		ug/L		103	70 - 130
Surrogate		LCS	LCS	Limits			
		%Recovery	Qualifier	Limits			
1,2-Dichloroethane-d4 (Surr)	110			70 - 130			
4-Bromofluorobenzene (Surr)	101			70 - 130			
Toluene-d8 (Surr)	96			70 - 130			
Dibromofluoromethane (Surr)	107			70 - 130			

Lab Sample ID: LCSD 480-422764/5

Matrix: Water

Analysis Batch: 422764

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD		Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier						
1,1,1,2-Tetrachloroethane	25.0	28.3		ug/L		113	70 - 130	1	20
1,1,1-Trichloroethane	25.0	29.2		ug/L		117	70 - 130	9	20
1,1,2,2-Tetrachloroethane	25.0	27.1		ug/L		108	70 - 130	4	20
1,1,2-Trichloroethane	25.0	26.0		ug/L		104	70 - 130	0	20
1,1-Dichloroethane	25.0	28.0		ug/L		112	70 - 130	3	20
1,1-Dichloroethene	25.0	26.9		ug/L		108	70 - 130	14	20
1,1-Dichloropropene	25.0	26.7		ug/L		107	70 - 130	10	20
1,2,3-Trichlorobenzene	25.0	26.7		ug/L		107	70 - 130	3	20
1,2,3-Trichloropropane	25.0	28.5		ug/L		114	70 - 130	3	20
1,2,4-Trichlorobenzene	25.0	27.5		ug/L		110	70 - 130	3	20
1,2,4-Trimethylbenzene	25.0	28.5		ug/L		114	70 - 130	7	20
1,2-Dibromo-3-Chloropropane	25.0	27.5		ug/L		110	70 - 130	6	20
1,2-Dichlorobenzene	25.0	28.0		ug/L		112	70 - 130	6	20
1,2-Dichloroethane	25.0	28.0		ug/L		112	70 - 130	2	20
1,2-Dichloropropane	25.0	28.3		ug/L		113	70 - 130	2	20
1,3,5-Trimethylbenzene	25.0	28.7		ug/L		115	70 - 130	9	20
1,3-Dichlorobenzene	25.0	27.2		ug/L		109	70 - 130	2	20
1,3-Dichloropropane	25.0	25.3		ug/L		101	70 - 130	1	20
1,4-Dichlorobenzene	25.0	27.0		ug/L		108	70 - 130	4	20
1,4-Dioxane	500	535		ug/L		107	70 - 130	2	20
2,2-Dichloropropane	25.0	30.8		ug/L		123	70 - 130	12	20
2-Butanone (MEK)	125	262	*	ug/L		210	70 - 130	3	20
2-Chlorotoluene	25.0	27.8		ug/L		111	70 - 130	10	20
2-Hexanone	125	147		ug/L		117	70 - 130	1	20
4-Chlorotoluene	25.0	27.3		ug/L		109	70 - 130	8	20
4-Isopropyltoluene	25.0	29.8		ug/L		119	70 - 130	11	20

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc

Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-422764/5

Matrix: Water

Analysis Batch: 422764

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD	Limit
	Added	Result	Qualifier							
4-Methyl-2-pentanone (MIBK)	125	143		ug/L		115	70 - 130	0	20	
Acetone	125	163		ug/L		130	70 - 130	5	20	
Benzene	25.0	26.0		ug/L		104	70 - 130	3	20	
Bromobenzene	25.0	26.7		ug/L		107	70 - 130	3	20	
Bromoform	25.0	26.8		ug/L		107	70 - 130	0	20	
Bromomethane	25.0	24.8		ug/L		99	70 - 130	5	20	
Carbon disulfide	25.0	26.6		ug/L		106	70 - 130	10	20	
Carbon tetrachloride	25.0	32.0		ug/L		128	70 - 130	12	20	
Chlorobenzene	25.0	27.1		ug/L		108	70 - 130	6	20	
Chlorobromomethane	25.0	27.2		ug/L		109	70 - 130	3	20	
Chlorodibromomethane	25.0	24.4		ug/L		98	70 - 130	2	20	
Chloroethane	25.0	26.8		ug/L		107	70 - 130	5	20	
Chloroform	25.0	26.2		ug/L		105	70 - 130	1	20	
Chloromethane	25.0	27.7		ug/L		111	70 - 130	6	20	
cis-1,2-Dichloroethene	25.0	25.0		ug/L		100	70 - 130	1	20	
cis-1,3-Dichloropropene	25.0	24.6		ug/L		99	70 - 130	2	20	
Dibromomethane	25.0	27.2		ug/L		109	70 - 130	6	20	
Dichlorobromomethane	25.0	28.8		ug/L		115	70 - 130	1	20	
Dichlorodifluoromethane	25.0	37.1 *		ug/L		149	70 - 130	14	20	
Ethyl ether	25.0	25.2		ug/L		101	70 - 130	1	20	
Ethylbenzene	25.0	26.8		ug/L		107	70 - 130	9	20	
Ethylene Dibromide	25.0	27.5		ug/L		110	70 - 130	2	20	
Hexachlorobutadiene	25.0	27.2		ug/L		109	70 - 130	9	20	
Isopropyl ether	25.0	28.5		ug/L		114	70 - 130	2	20	
Isopropylbenzene	25.0	28.3		ug/L		113	70 - 130	12	20	
Methyl tert-butyl ether	25.0	26.1		ug/L		104	70 - 130	1	20	
Methylene Chloride	25.0	23.9		ug/L		96	70 - 130	0	20	
m-Xylene & p-Xylene	25.0	26.7		ug/L		107	70 - 130	8	20	
Naphthalene	25.0	28.8		ug/L		115	70 - 130	2	20	
n-Butylbenzene	25.0	29.7		ug/L		119	70 - 130	11	20	
N-Propylbenzene	25.0	28.0		ug/L		112	70 - 130	10	20	
o-Xylene	25.0	26.5		ug/L		106	70 - 130	4	20	
sec-Butylbenzene	25.0	29.2		ug/L		117	70 - 130	11	20	
Styrene	25.0	27.7		ug/L		111	70 - 130	4	20	
Tert-amyl methyl ether	25.0	25.4		ug/L		102	70 - 130	4	20	
Tert-butyl ethyl ether	25.0	27.1		ug/L		108	70 - 130	3	20	
tert-Butylbenzene	25.0	28.7		ug/L		115	70 - 130	9	20	
Tetrachloroethene	25.0	28.8		ug/L		115	70 - 130	6	20	
Tetrahydrofuran	50.0	77.1 *		ug/L		154	70 - 130	1	20	
Toluene	25.0	25.7		ug/L		103	70 - 130	8	20	
trans-1,2-Dichloroethene	25.0	28.2		ug/L		113	70 - 130	6	20	
trans-1,3-Dichloropropene	25.0	23.9		ug/L		96	70 - 130	0	20	
Trichloroethene	25.0	27.8		ug/L		111	70 - 130	6	20	
Trichlorofluoromethane	25.0	31.4		ug/L		126	70 - 130	12	20	
Vinyl chloride	25.0	29.7		ug/L		119	70 - 130	14	20	

Surrogate	LCSD	LCSD			
	%Recovery	Qualifier	Limits		
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc

TestAmerica Job ID: 480-138351-1

Project/Site: June 2018 Quarterly Surface Water

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-422764/5

Matrix: Water

Analysis Batch: 422764

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
Toluene-d8 (Surr)	95		70 - 130
Dibromofluoromethane (Surr)	107		70 - 130

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-422798/1-C

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Dissolved

Analysis Batch: 423223

Prep Batch: 423017

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Aluminum, Dissolved	ND				200	60	ug/L		07/05/18 10:35	07/05/18 17:25	1
Antimony, Dissolved	ND				20	6.8	ug/L		07/05/18 10:35	07/05/18 17:25	1
Arsenic, Dissolved	ND				10	5.6	ug/L		07/05/18 10:35	07/05/18 17:25	1
Barium, Dissolved	ND				10	0.70	ug/L		07/05/18 10:35	07/05/18 17:25	1
Beryllium, Dissolved	ND				1.0	0.30	ug/L		07/05/18 10:35	07/05/18 17:25	1
Cadmium, Dissolved	ND				1.0	0.50	ug/L		07/05/18 10:35	07/05/18 17:25	1
Calcium, Dissolved	ND				500	100	ug/L		07/05/18 10:35	07/05/18 17:25	1
Chromium, Dissolved	ND				5.0	1.0	ug/L		07/05/18 10:35	07/05/18 17:25	1
Cobalt, Dissolved	ND				4.0	0.63	ug/L		07/05/18 10:35	07/05/18 17:25	1
Copper, Dissolved	1.75	J			10	1.6	ug/L		07/05/18 10:35	07/05/18 17:25	1
Iron, Dissolved	ND				50	19	ug/L		07/05/18 10:35	07/05/18 17:25	1
Lead, Dissolved	ND				5.0	3.0	ug/L		07/05/18 10:35	07/05/18 17:25	1
Magnesium, Dissolved	ND				200	43	ug/L		07/05/18 10:35	07/05/18 17:25	1
Manganese, Dissolved	ND				3.0	0.40	ug/L		07/05/18 10:35	07/05/18 17:25	1
Nickel, Dissolved	ND				10	1.3	ug/L		07/05/18 10:35	07/05/18 17:25	1
Potassium, Dissolved	293	J			500	100	ug/L		07/05/18 10:35	07/05/18 17:25	1
Selenium, Dissolved	ND				10	8.7	ug/L		07/05/18 10:35	07/05/18 17:25	1
Silver, Dissolved	ND				5.0	1.7	ug/L		07/05/18 10:35	07/05/18 17:25	1
Sodium, Dissolved	327	J			1000	320	ug/L		07/05/18 10:35	07/05/18 17:25	1
Thallium, Dissolved	ND				20	10	ug/L		07/05/18 10:35	07/05/18 17:25	1
Vanadium, Dissolved	ND				10	1.5	ug/L		07/05/18 10:35	07/05/18 17:25	1
Zinc, Dissolved	10.1	J			50	1.5	ug/L		07/05/18 10:35	07/05/18 17:25	1

Lab Sample ID: LCS 480-422798/2-C

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Dissolved

Analysis Batch: 423223

Prep Batch: 423017

Analyte	Spike	LCs	LCs	%Rec.			Limits
	Added	Result	Qualifier	Unit	D	%Rec	
Aluminum, Dissolved	10000	9190		ug/L		92	80 - 120
Antimony, Dissolved	200	193		ug/L		96	80 - 120
Arsenic, Dissolved	200	199		ug/L		100	80 - 120
Barium, Dissolved	200	194		ug/L		97	80 - 120
Beryllium, Dissolved	200	204		ug/L		102	80 - 120
Cadmium, Dissolved	200	196		ug/L		98	80 - 120
Calcium, Dissolved	10000	9520		ug/L		95	80 - 120
Chromium, Dissolved	200	187		ug/L		94	80 - 120
Cobalt, Dissolved	200	185		ug/L		93	80 - 120

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc

TestAmerica Job ID: 480-138351-1

Project/Site: June 2018 Quarterly Surface Water

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-422798/2-C

Matrix: Water

Analysis Batch: 423223

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Prep Batch: 423017

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits	%Rec.	
		Result	Qualifier						
Copper, Dissolved	200	194		ug/L		97	80 - 120		
Iron, Dissolved	10000	9440		ug/L		94	80 - 120		
Lead, Dissolved	200	196		ug/L		98	80 - 120		
Magnesium, Dissolved	10000	9800		ug/L		98	80 - 120		
Manganese, Dissolved	200	199		ug/L		100	80 - 120		
Nickel, Dissolved	200	195		ug/L		97	80 - 120		
Potassium, Dissolved	10000	9790		ug/L		98	80 - 120		
Selenium, Dissolved	200	184		ug/L		92	80 - 120		
Silver, Dissolved	50.0	51.7		ug/L		103	80 - 120		
Sodium, Dissolved	10000	9500		ug/L		95	80 - 120		
Thallium, Dissolved	200	196		ug/L		98	80 - 120		
Vanadium, Dissolved	200	196		ug/L		98	80 - 120		
Zinc, Dissolved	200	216		ug/L		108	80 - 120		

Lab Sample ID: LCSD 480-422798/3-B

Client Sample ID: Lab Control Sample Dup

Prep Type: Dissolved

Prep Batch: 423017

Analyte	Spike Added	LCSD		Unit	D	%Rec	Limits	%Rec.	RPD	RPD	Limit
		Result	Qualifier								
Aluminum, Dissolved	10000	9620		ug/L		96	80 - 120		5	20	
Antimony, Dissolved	200	200		ug/L		100	80 - 120		4	20	
Arsenic, Dissolved	200	208		ug/L		104	80 - 120		4	20	
Barium, Dissolved	200	204		ug/L		102	80 - 120		5	20	
Beryllium, Dissolved	200	214		ug/L		107	80 - 120		5	20	
Cadmium, Dissolved	200	205		ug/L		102	80 - 120		4	20	
Calcium, Dissolved	10000	9890		ug/L		99	80 - 120		4	20	
Chromium, Dissolved	200	193		ug/L		97	80 - 120		3	20	
Cobalt, Dissolved	200	193		ug/L		97	80 - 120		4	20	
Copper, Dissolved	200	201		ug/L		100	80 - 120		3	20	
Iron, Dissolved	10000	9840		ug/L		98	80 - 120		4	20	
Lead, Dissolved	200	204		ug/L		102	80 - 120		4	20	
Magnesium, Dissolved	10000	10200		ug/L		102	80 - 120		4	20	
Manganese, Dissolved	200	208		ug/L		104	80 - 120		4	20	
Nickel, Dissolved	200	204		ug/L		102	80 - 120		5	20	
Potassium, Dissolved	10000	10200		ug/L		102	80 - 120		4	20	
Selenium, Dissolved	200	193		ug/L		96	80 - 120		5	20	
Silver, Dissolved	50.0	54.6		ug/L		109	80 - 120		5	20	
Sodium, Dissolved	10000	10100		ug/L		101	80 - 120		6	20	
Thallium, Dissolved	200	204		ug/L		102	80 - 120		4	20	
Vanadium, Dissolved	200	204		ug/L		102	80 - 120		4	20	
Zinc, Dissolved	200	219		ug/L		110	80 - 120		2	20	

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 480-422859/3

Matrix: Water

Analysis Batch: 422859

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chromium, hexavalent	ND		0.010	0.0050	mg/L			07/03/18 12:00	1

Lab Sample ID: LCS 480-422859/4

Matrix: Water

Analysis Batch: 422859

Analyte	Spike	LCS	LCS	Unit	D	%Rec.	Limits	RPD	Limit
	Added	Result	Qualifier						
Chromium, hexavalent	0.200	0.209		mg/L		104	80 - 120		

Lab Sample ID: LCSD 480-422859/5

Matrix: Water

Analysis Batch: 422859

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec.	Limits	RPD	Limit
	Added	Result	Qualifier						
Chromium, hexavalent	0.200	0.205		mg/L		103	80 - 120	2	20

Lab Sample ID: 480-138351-3 MS

Matrix: Water

Analysis Batch: 422859

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Chromium, hexavalent	0.23		0.200	0.424		mg/L		95	75 - 125		

Lab Sample ID: 480-138351-2 DU

Matrix: Water

Analysis Batch: 422859

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Chromium, hexavalent	0.24	H	0.245		mg/L		4	20

QC Association Summary

Client: Honeywell International Inc

TestAmerica Job ID: 480-138351-1

Project/Site: June 2018 Quarterly Surface Water

GC/MS VOA

Analysis Batch: 422764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-138351-1	C070218-CSW5	Total/NA	Water	8260C	
480-138351-2	C070218-CSW3A	Total/NA	Water	8260C	
480-138351-3	C070218-CSW3	Total/NA	Water	8260C	
MB 480-422764/8	Method Blank	Total/NA	Water	8260C	
LCS 480-422764/6	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-422764/5	Lab Control Sample Dup	Total/NA	Water	8260C	

Metals

Filtration Batch: 422798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-138351-1	C070218-CSW5	Dissolved	Water	FILTRATION	
480-138351-2	C070218-CSW3A	Dissolved	Water	FILTRATION	
480-138351-3	C070218-CSW3	Dissolved	Water	FILTRATION	
480-138351-4	C070218-CSWBKG-001	Dissolved	Water	FILTRATION	
MB 480-422798/1-C	Method Blank	Dissolved	Water	FILTRATION	
LCS 480-422798/2-C	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 480-422798/3-B	Lab Control Sample Dup	Dissolved	Water	FILTRATION	

Prep Batch: 423017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-138351-1	C070218-CSW5	Dissolved	Water	3005A	422798
480-138351-2	C070218-CSW3A	Dissolved	Water	3005A	422798
480-138351-3	C070218-CSW3	Dissolved	Water	3005A	422798
480-138351-4	C070218-CSWBKG-001	Dissolved	Water	3005A	422798
MB 480-422798/1-C	Method Blank	Dissolved	Water	3005A	422798
LCS 480-422798/2-C	Lab Control Sample	Dissolved	Water	3005A	422798
LCSD 480-422798/3-B	Lab Control Sample Dup	Dissolved	Water	3005A	422798

Analysis Batch: 423223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-138351-1	C070218-CSW5	Dissolved	Water	6010	423017
480-138351-2	C070218-CSW3A	Dissolved	Water	6010	423017
480-138351-3	C070218-CSW3	Dissolved	Water	6010	423017
480-138351-4	C070218-CSWBKG-001	Dissolved	Water	6010	423017
MB 480-422798/1-C	Method Blank	Dissolved	Water	6010	423017
LCS 480-422798/2-C	Lab Control Sample	Dissolved	Water	6010	423017
LCSD 480-422798/3-B	Lab Control Sample Dup	Dissolved	Water	6010	423017

Analysis Batch: 424979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-138351-1	C070218-CSW5	Total/NA	Water	SM 2340B	
480-138351-2	C070218-CSW3A	Total/NA	Water	SM 2340B	
480-138351-3	C070218-CSW3	Total/NA	Water	SM 2340B	
480-138351-4	C070218-CSWBKG-001	Total/NA	Water	SM 2340B	

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QC Association Summary

Client: Honeywell International Inc

Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

General Chemistry

Analysis Batch: 422859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-138351-1	C070218-CSW5	Total/NA	Water	7196A	5
480-138351-2	C070218-CSW3A	Total/NA	Water	7196A	6
480-138351-3	C070218-CSW3	Total/NA	Water	7196A	7
480-138351-4	C070218-CSWBKG-001	Total/NA	Water	7196A	8
MB 480-422859/3	Method Blank	Total/NA	Water	7196A	9
LCS 480-422859/4	Lab Control Sample	Total/NA	Water	7196A	10
LCSD 480-422859/5	Lab Control Sample Dup	Total/NA	Water	7196A	11
480-138351-3 MS	C070218-CSW3	Total/NA	Water	7196A	12
480-138351-2 DU	C070218-CSW3A	Total/NA	Water	7196A	13

Lab Chronicle

Client: Honeywell International Inc
Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Client Sample ID: C070218-CSW5

Lab Sample ID: 480-138351-1

Matrix: Water

Date Collected: 07/02/18 09:15

Date Received: 07/03/18 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	422764	07/03/18 16:55	S1V	TAL BUF
Dissolved	Filtration	FILTRATION			422798	07/03/18 09:54	JAK	TAL BUF
Dissolved	Prep	3005A			423017	07/05/18 10:35	KMP	TAL BUF
Dissolved	Analysis	6010		1	423223	07/05/18 18:42	S1P	TAL BUF
Total/NA	Analysis	SM 2340B		1	424979	07/18/18 08:27	LMH	TAL BUF
Total/NA	Analysis	7196A		1	422859	07/03/18 12:00	MDL	TAL BUF

Client Sample ID: C070218-CSW3A

Lab Sample ID: 480-138351-2

Matrix: Water

Date Collected: 07/02/18 11:00

Date Received: 07/03/18 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	422764	07/03/18 17:19	S1V	TAL BUF
Dissolved	Filtration	FILTRATION			422798	07/03/18 09:54	JAK	TAL BUF
Dissolved	Prep	3005A			423017	07/05/18 10:35	KMP	TAL BUF
Dissolved	Analysis	6010		1	423223	07/05/18 18:46	S1P	TAL BUF
Total/NA	Analysis	SM 2340B		1	424979	07/18/18 08:27	LMH	TAL BUF
Total/NA	Analysis	7196A		1	422859	07/03/18 12:00	MDL	TAL BUF

Client Sample ID: C070218-CSW3

Lab Sample ID: 480-138351-3

Matrix: Water

Date Collected: 07/02/18 12:00

Date Received: 07/03/18 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	422764	07/03/18 17:42	S1V	TAL BUF
Dissolved	Filtration	FILTRATION			422798	07/03/18 09:54	JAK	TAL BUF
Dissolved	Prep	3005A			423017	07/05/18 10:35	KMP	TAL BUF
Dissolved	Analysis	6010		1	423223	07/05/18 18:50	S1P	TAL BUF
Total/NA	Analysis	SM 2340B		1	424979	07/18/18 08:27	LMH	TAL BUF
Total/NA	Analysis	7196A		1	422859	07/03/18 12:00	MDL	TAL BUF

Client Sample ID: C070218-CSWBKG-001

Lab Sample ID: 480-138351-4

Matrix: Water

Date Collected: 07/02/18 14:00

Date Received: 07/03/18 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			422798	07/03/18 09:54	JAK	TAL BUF
Dissolved	Prep	3005A			423017	07/05/18 10:35	KMP	TAL BUF
Dissolved	Analysis	6010		1	423223	07/05/18 18:53	S1P	TAL BUF
Total/NA	Analysis	SM 2340B		1	424979	07/18/18 08:27	LMH	TAL BUF
Total/NA	Analysis	7196A		1	422859	07/03/18 12:00	MDL	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: Honeywell International Inc

Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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Accreditation/Certification Summary

Client: Honeywell International Inc

Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Massachusetts	State Program	1	M-NY044	06-30-19
The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:				
Analysis Method	Prep Method	Matrix	Analyte	
6010	3005A	Water	Aluminum, Dissolved	
6010	3005A	Water	Antimony, Dissolved	
6010	3005A	Water	Arsenic, Dissolved	
6010	3005A	Water	Barium, Dissolved	
6010	3005A	Water	Beryllium, Dissolved	
6010	3005A	Water	Cadmium, Dissolved	
6010	3005A	Water	Calcium, Dissolved	
6010	3005A	Water	Chromium, Dissolved	
6010	3005A	Water	Cobalt, Dissolved	
6010	3005A	Water	Copper, Dissolved	
6010	3005A	Water	Iron, Dissolved	
6010	3005A	Water	Lead, Dissolved	
6010	3005A	Water	Magnesium, Dissolved	
6010	3005A	Water	Manganese, Dissolved	
6010	3005A	Water	Nickel, Dissolved	
6010	3005A	Water	Potassium, Dissolved	
6010	3005A	Water	Selenium, Dissolved	
6010	3005A	Water	Silver, Dissolved	
6010	3005A	Water	Sodium, Dissolved	
6010	3005A	Water	Thallium, Dissolved	
6010	3005A	Water	Vanadium, Dissolved	
6010	3005A	Water	Zinc, Dissolved	
7196A		Water	Chromium, hexavalent	
8260C		Water	1,1,1,2-Tetrachloroethane	
8260C		Water	1,1,1-Trichloroethane	
8260C		Water	1,1,2,2-Tetrachloroethane	
8260C		Water	1,1,2-Trichloroethane	
8260C		Water	1,1-Dichloroethane	
8260C		Water	1,1-Dichloroethene	
8260C		Water	1,1-Dichloropropene	
8260C		Water	1,2,3-Trichlorobenzene	
8260C		Water	1,2,3-Trichloropropane	
8260C		Water	1,2,4-Trichlorobenzene	
8260C		Water	1,2,4-Trimethylbenzene	
8260C		Water	1,2-Dibromo-3-Chloropropane	
8260C		Water	1,2-Dichlorobenzene	
8260C		Water	1,2-Dichloroethane	
8260C		Water	1,2-Dichloropropane	
8260C		Water	1,3,5-Trimethylbenzene	
8260C		Water	1,3-Dichlorobenzene	
8260C		Water	1,3-Dichloropropane	
8260C		Water	1,4-Dichlorobenzene	
8260C		Water	1,4-Dioxane	
8260C		Water	2,2-Dichloropropane	
8260C		Water	2-Butanone (MEK)	
8260C		Water	2-Chlorotoluene	

Accreditation/Certification Summary

Client: Honeywell International Inc

Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Laboratory: TestAmerica Buffalo (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Massachusetts	State Program	1	M-NY044	06-30-19
The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:				
Analysis Method	Prep Method	Matrix	Analyte	
8260C		Water	2-Hexanone	
8260C		Water	4-Chlorotoluene	
8260C		Water	4-Isopropyltoluene	
8260C		Water	4-Methyl-2-pentanone (MIBK)	
8260C		Water	Acetone	
8260C		Water	Benzene	
8260C		Water	Bromobenzene	
8260C		Water	Bromoform	
8260C		Water	Bromomethane	
8260C		Water	Carbon disulfide	
8260C		Water	Carbon tetrachloride	
8260C		Water	Chlorobenzene	
8260C		Water	Chlorobromomethane	
8260C		Water	Chlorodibromomethane	
8260C		Water	Chloroethane	
8260C		Water	Chloroform	
8260C		Water	Chloromethane	
8260C		Water	cis-1,2-Dichloroethene	
8260C		Water	cis-1,3-Dichloropropene	
8260C		Water	Dibromomethane	
8260C		Water	Dichlorobromomethane	
8260C		Water	Dichlorodifluoromethane	
8260C		Water	Ethyl ether	
8260C		Water	Ethylbenzene	
8260C		Water	Ethylene Dibromide	
8260C		Water	Hexachlorobutadiene	
8260C		Water	Isopropyl ether	
8260C		Water	Isopropylbenzene	
8260C		Water	Methyl tert-butyl ether	
8260C		Water	Methylene Chloride	
8260C		Water	m-Xylene & p-Xylene	
8260C		Water	Naphthalene	
8260C		Water	n-Butylbenzene	
8260C		Water	N-Propylbenzene	
8260C		Water	o-Xylene	
8260C		Water	sec-Butylbenzene	
8260C		Water	Styrene	
8260C		Water	Tert-amyl methyl ether	
8260C		Water	Tert-butyl ethyl ether	
8260C		Water	tert-Butylbenzene	
8260C		Water	Tetrachloroethene	
8260C		Water	Tetrahydrofuran	
8260C		Water	Toluene	
8260C		Water	trans-1,2-Dichloroethene	
8260C		Water	trans-1,3-Dichloropropene	
8260C		Water	Trichloroethene	

Accreditation/Certification Summary

Client: Honeywell International Inc

Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Laboratory: TestAmerica Buffalo (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Massachusetts	State Program	1	M-NY044	06-30-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	Trichlorofluoromethane
8260C		Water	Vinyl chloride
SM 2340B		Water	Calcium hardness as calcium carbonate
SM 2340B		Water	Hardness as calcium carbonate
SM 2340B		Water	Magnesium hardness as calcium carbonate

Method Summary

Client: Honeywell International Inc
Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
6010	Metals (ICP)	SW846	TAL BUF
SM 2340B	Total Hardness (as CaCO ₃) by calculation	SM	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF
FILTRATION	Sample Filtration	None	TAL BUF

Protocol References:

MA DEP = Massachusetts Department Of Environmental Protection

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Honeywell International Inc

Project/Site: June 2018 Quarterly Surface Water

TestAmerica Job ID: 480-138351-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-138351-1	C070218-CSW5	Water	07/02/18 09:15	07/03/18 01:30
480-138351-2	C070218-CSW3A	Water	07/02/18 11:00	07/03/18 01:30
480-138351-3	C070218-CSW3	Water	07/02/18 12:00	07/03/18 01:30
480-138351-4	C070218-CSWBKG-001	Water	07/02/18 14:00	07/03/18 01:30

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TestAmerica Buffalo



TestAmerica Buffalo

10 Hazelwood Drive
Amherst, NY 14228
Tel 716.504.9838 | Fax 716.691.7991; Contact: JOHN SCHOVE

Honeywell

Chain Of Custody / Analysis Request

Tel 716.504.9838 | Fax 716.691.7991; Contact: JOHN SCHOVE

Special Instructions: MCP Protocol, GW-1 Detection Limits, MCP QA/QC Report. - LOWEST RL POSSIBLE
swv6/6926D Violent, Osmotic, Cross-reactive, 7109A Dissociated Chromium, SW8/6/6910B Total Chromium, En-

Special Instructions: MCP Protocol, GW-1 Detection Limits, MCP QA/QC Report, - LOWEST RL POSSIBLE
 SW16/60/60/60 Valsalva, Orogenic, Convulsive, 710CA Household Chemicals, SW16/60/60 Total Chromium, Produced Twin Blood Sampled by Lab, Dissolved matrix includes Cr, Cu, Co, Mn, Ni, K

Relinquished by <i>John Doh</i>	Company Date/Time	Accepted by Company Date/Time	Received by Company Date/Time	Condition Company	Condition Company	Custody Seals Intact
Relinquished by <i>John Doh</i>	Company Date/Time	Accepted by Company Date/Time	Received by Company Date/Time	Condition Company	Condition Company	Custody Seals Intact

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 480-138351-1

Login Number: 138351

List Source: TestAmerica Buffalo

List Number: 1

Creator: Williams, Christopher S

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AMEC
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive
Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-135713-1

Client Project/Site: Honeywell Conductor lab

For:

Honeywell International Inc
Remediation & Evaluation Services
115 Tabor Road
Morris Plains, New Jersey 07950

Attn: Ms. Maria Kaouris



Authorized for release by:

5/29/2018 2:06:44 PM

Rebecca Jones, Project Management Assistant I

rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II
(716)504-9838

john.schove@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-135713-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-135713-1

Job ID: 480-135713-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-135713-1

Comments

No additional comments.

Receipt

The samples were received on 5/11/2018 2:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.2° C.

Metals

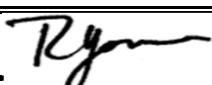
Method(s) 6010: At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

MassDEP Analytical Protocol Certification Form

Laboratory Name: TestAmerica Buffalo		Project #: 480-135713-1			
Project Location: Groton		RTN:			
This form provides certifications for the following data set: list Laboratory Sample ID Number(s): 480-135713-1(1-4)					
Matrices: <input type="checkbox"/> Groundwater/Surface Water <input checked="" type="checkbox"/> Soil/Sediment <input type="checkbox"/> Drinking Water <input type="checkbox"/> Air <input type="checkbox"/> Other:					
CAM Protocols (check all that apply below):					
8260 VOC CAM II A <input type="checkbox"/>	7470/7471 Hg CAM III B <input type="checkbox"/>	Mass DEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input checked="" type="checkbox"/>	Mass DEP APH CAM IX A <input type="checkbox"/>
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	Mass DEP EPH CAM IV B <input type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>
6010 Metals CAM III A <input checked="" type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9014 Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>	
Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status					
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
E	a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?				<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Responses to Questions G, H and I below are required for "Presumptive Certainty" status					
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350					
H	Were all QC performance standards specified in the CAM protocol(s) achieved?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ¹
¹ All negative responses must be addressed in an attached laboratory narrative.					
I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.					
Signature:			Position:	Project Management Assistant	
Printed Name:	Rebecca Jones		Date:	5/29/18 13:59	

Detection Summary

Client: Honeywell International Inc
 Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-135713-1

Client Sample ID: C051018-TW1

Lab Sample ID: 480-135713-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	1400		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, Dissolved	0.15		0.0050	0.0010	mg/L	1		6010	Dissolved
Chromium, hexavalent	0.17		0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: C051018-TW2

Lab Sample ID: 480-135713-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	230		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, Dissolved	0.031		0.0050	0.0010	mg/L	1		6010	Dissolved
Chromium, hexavalent	0.041		0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: C051010-TW3

Lab Sample ID: 480-135713-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	3400		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, Dissolved	0.0038 J		0.0050	0.0010	mg/L	1		6010	Dissolved

Client Sample ID: C051010-TW4

Lab Sample ID: 480-135713-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	51		5.0	1.0	ug/L	1		6010	Total/NA
Chromium, Dissolved	0.0026 J		0.0050	0.0010	mg/L	1		6010	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-135713-1

Client Sample ID: C051018-TW1

Lab Sample ID: 480-135713-1

Date Collected: 05/10/18 09:26

Matrix: Water

Date Received: 05/11/18 02:00

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	1400		5.0	1.0	ug/L	D	05/12/18 09:19	05/14/18 18:58	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, Dissolved	0.15		0.0050	0.0010	mg/L	D	05/17/18 11:35	05/19/18 15:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.17		0.010	0.0050	mg/L	D		05/11/18 09:13	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-135713-1

Client Sample ID: C051018-TW2

Lab Sample ID: 480-135713-2

Matrix: Water

Date Collected: 05/10/18 09:56

Date Received: 05/11/18 02:00

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	230		5.0	1.0	ug/L	D	05/12/18 09:19	05/14/18 19:01	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, Dissolved	0.031		0.0050	0.0010	mg/L	D	05/17/18 11:35	05/19/18 15:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.041		0.010	0.0050	mg/L	D		05/11/18 09:13	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-135713-1

Client Sample ID: C051010-TW3

Lab Sample ID: 480-135713-3

Matrix: Water

Date Collected: 05/10/18 10:26

Date Received: 05/11/18 02:00

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	3400		5.0	1.0	ug/L	D	05/12/18 09:19	05/14/18 19:05	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, Dissolved	0.0038	J	0.0050	0.0010	mg/L	D	05/17/18 11:35	05/19/18 16:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L	D		05/11/18 09:13	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-135713-1

Client Sample ID: C051010-TW4

Lab Sample ID: 480-135713-4

Matrix: Water

Date Collected: 05/10/18 11:01

Date Received: 05/11/18 02:00

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	51		5.0	1.0	ug/L	D	05/12/18 09:19	05/14/18 19:08	1

Method: 6010 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, Dissolved	0.0026	J	0.0050	0.0010	mg/L	D	05/17/18 11:35	05/19/18 16:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L	D		05/11/18 09:13	1

QC Sample Results

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-135713-1

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-413922/1-A

Matrix: Water

Analysis Batch: 414338

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 413922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		5.0	1.0	ug/L		05/12/18 09:19	05/14/18 17:46	1

Lab Sample ID: LCS 480-413922/2-A

Matrix: Water

Analysis Batch: 414338

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 413922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Chromium	200	192		ug/L		96	80 - 120

Lab Sample ID: LCSD 480-413922/25-A

Matrix: Water

Analysis Batch: 414338

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 413922

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	Limit	
Chromium	200	193		ug/L		97	80 - 120	1	20

Lab Sample ID: MB 480-414352/1-C

Matrix: Water

Analysis Batch: 415466

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 414681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, Dissolved	ND		0.0050	0.0010	mg/L		05/17/18 11:35	05/19/18 15:35	1

Lab Sample ID: LCS 480-414352/2-C

Matrix: Water

Analysis Batch: 415466

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Prep Batch: 414681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Chromium, Dissolved	0.200	0.200		mg/L		100	80 - 120

Lab Sample ID: LCSD 480-414352/3-B

Matrix: Water

Analysis Batch: 415466

Client Sample ID: Lab Control Sample Dup

Prep Type: Dissolved

Prep Batch: 414681

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	Limit	
Chromium, Dissolved	0.200	0.201		mg/L		100	80 - 120	1	20

Lab Sample ID: 480-135713-4 MS

Matrix: Water

Analysis Batch: 415466

Client Sample ID: C051010-TW4

Prep Type: Dissolved

Prep Batch: 414681

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	RPD
Chromium, Dissolved	0.0026	J	0.200	0.205		mg/L		101	75 - 125

Lab Sample ID: 480-135713-4 MSD

Matrix: Water

Analysis Batch: 415466

Client Sample ID: C051010-TW4

Prep Type: Dissolved

Prep Batch: 414681

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD
Chromium, Dissolved	0.0026	J	0.200	0.205		mg/L		101	75 - 125

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
 Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-135713-1

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 480-413897/3

Matrix: Water

Analysis Batch: 413897

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			05/11/18 09:13	1

Lab Sample ID: LCS 480-413897/4

Matrix: Water

Analysis Batch: 413897

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits	
Chromium, hexavalent	0.200	0.207		mg/L		103	80 - 120	

Lab Sample ID: LCSD 480-413897/5

Matrix: Water

Analysis Batch: 413897

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	Limits	RPD	RPD Limit
Chromium, hexavalent	0.200	0.207		mg/L		103	80 - 120	0	20

Lab Sample ID: 480-135713-1 MS

Matrix: Water

Analysis Batch: 413897

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits	
Chromium, hexavalent	0.16		0.200	0.345		mg/L		92	75 - 125	
Chromium, hexavalent	0.17		0.200	0.357		mg/L		94	75 - 125	

Lab Sample ID: 480-135713-2 DU

Matrix: Water

Analysis Batch: 413897

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D		RPD	RPD Limit
Chromium, hexavalent	0.041		0.0413		mg/L			0	20

Client Sample ID: Method Blank

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Client Sample ID: C051018-TW1

Prep Type: Total/NA

Client Sample ID: C051018-TW2

Prep Type: Total/NA

QC Association Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-135713-1

Metals

Prep Batch: 413922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135713-1	C051018-TW1	Total/NA	Water	3005A	
480-135713-2	C051018-TW2	Total/NA	Water	3005A	
480-135713-3	C051010-TW3	Total/NA	Water	3005A	
480-135713-4	C051010-TW4	Total/NA	Water	3005A	
MB 480-413922/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-413922/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-413922/25-A	Lab Control Sample Dup	Total/NA	Water	3005A	

Analysis Batch: 414338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135713-1	C051018-TW1	Total/NA	Water	6010	413922
480-135713-2	C051018-TW2	Total/NA	Water	6010	413922
480-135713-3	C051010-TW3	Total/NA	Water	6010	413922
480-135713-4	C051010-TW4	Total/NA	Water	6010	413922
MB 480-413922/1-A	Method Blank	Total/NA	Water	6010	413922
LCS 480-413922/2-A	Lab Control Sample	Total/NA	Water	6010	413922
LCSD 480-413922/25-A	Lab Control Sample Dup	Total/NA	Water	6010	413922

Filtration Batch: 414352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135713-1	C051018-TW1	Dissolved	Water	FILTRATION	
480-135713-2	C051018-TW2	Dissolved	Water	FILTRATION	
480-135713-3	C051010-TW3	Dissolved	Water	FILTRATION	
480-135713-4	C051010-TW4	Dissolved	Water	FILTRATION	
MB 480-414352/1-C	Method Blank	Dissolved	Water	FILTRATION	
LCS 480-414352/2-C	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 480-414352/3-B	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
480-135713-4 MS	C051010-TW4	Dissolved	Water	FILTRATION	
480-135713-4 MSD	C051010-TW4	Dissolved	Water	FILTRATION	

Prep Batch: 414681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135713-1	C051018-TW1	Dissolved	Water	3005A	414352
480-135713-2	C051018-TW2	Dissolved	Water	3005A	414352
480-135713-3	C051010-TW3	Dissolved	Water	3005A	414352
480-135713-4	C051010-TW4	Dissolved	Water	3005A	414352
MB 480-414352/1-C	Method Blank	Dissolved	Water	3005A	414352
LCS 480-414352/2-C	Lab Control Sample	Dissolved	Water	3005A	414352
LCSD 480-414352/3-B	Lab Control Sample Dup	Dissolved	Water	3005A	414352
480-135713-4 MS	C051010-TW4	Dissolved	Water	3005A	414352
480-135713-4 MSD	C051010-TW4	Dissolved	Water	3005A	414352

Analysis Batch: 415466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135713-1	C051018-TW1	Dissolved	Water	6010	414681
480-135713-2	C051018-TW2	Dissolved	Water	6010	414681
480-135713-3	C051010-TW3	Dissolved	Water	6010	414681
480-135713-4	C051010-TW4	Dissolved	Water	6010	414681
MB 480-414352/1-C	Method Blank	Dissolved	Water	6010	414681
LCS 480-414352/2-C	Lab Control Sample	Dissolved	Water	6010	414681
LCSD 480-414352/3-B	Lab Control Sample Dup	Dissolved	Water	6010	414681

TestAmerica Buffalo

QC Association Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-135713-1

Metals (Continued)

Analysis Batch: 415466 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135713-4 MS	C051010-TW4	Dissolved	Water	6010	414681
480-135713-4 MSD	C051010-TW4	Dissolved	Water	6010	414681

General Chemistry

Analysis Batch: 413897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135713-1	C051018-TW1	Total/NA	Water	7196A	8
480-135713-2	C051018-TW2	Total/NA	Water	7196A	9
480-135713-3	C051010-TW3	Total/NA	Water	7196A	10
480-135713-4	C051010-TW4	Total/NA	Water	7196A	11
MB 480-413897/3	Method Blank	Total/NA	Water	7196A	12
LCS 480-413897/4	Lab Control Sample	Total/NA	Water	7196A	13
LCSD 480-413897/5	Lab Control Sample Dup	Total/NA	Water	7196A	14
480-135713-1 MS	C051018-TW1	Total/NA	Water	7196A	
480-135713-1 MS	C051018-TW1	Total/NA	Water	7196A	
480-135713-2 DU	C051018-TW2	Total/NA	Water	7196A	

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-135713-1

Client Sample ID: C051018-TW1

Date Collected: 05/10/18 09:26

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135713-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			414352	05/15/18 10:31	SMF	TAL BUF
Dissolved	Prep	3005A			414681	05/17/18 11:35	JAK	TAL BUF
Dissolved	Analysis	6010		1	415466	05/19/18 15:42	LMH	TAL BUF
Total/NA	Prep	3005A			413922	05/12/18 09:19	KMP	TAL BUF
Total/NA	Analysis	6010		1	414338	05/14/18 18:58	LMH	TAL BUF
Total/NA	Analysis	7196A		1	413897	05/11/18 09:13	AED	TAL BUF

Client Sample ID: C051018-TW2

Date Collected: 05/10/18 09:56

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135713-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			414352	05/15/18 10:31	SMF	TAL BUF
Dissolved	Prep	3005A			414681	05/17/18 11:35	JAK	TAL BUF
Dissolved	Analysis	6010		1	415466	05/19/18 15:57	LMH	TAL BUF
Total/NA	Prep	3005A			413922	05/12/18 09:19	KMP	TAL BUF
Total/NA	Analysis	6010		1	414338	05/14/18 19:01	LMH	TAL BUF
Total/NA	Analysis	7196A		1	413897	05/11/18 09:13	AED	TAL BUF

Client Sample ID: C051010-TW3

Date Collected: 05/10/18 10:26

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135713-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			414352	05/15/18 10:31	SMF	TAL BUF
Dissolved	Prep	3005A			414681	05/17/18 11:35	JAK	TAL BUF
Dissolved	Analysis	6010		1	415466	05/19/18 16:01	LMH	TAL BUF
Total/NA	Prep	3005A			413922	05/12/18 09:19	KMP	TAL BUF
Total/NA	Analysis	6010		1	414338	05/14/18 19:05	LMH	TAL BUF
Total/NA	Analysis	7196A		1	413897	05/11/18 09:13	AED	TAL BUF

Client Sample ID: C051010-TW4

Date Collected: 05/10/18 11:01

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135713-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			414352	05/15/18 10:31	SMF	TAL BUF
Dissolved	Prep	3005A			414681	05/17/18 11:35	JAK	TAL BUF
Dissolved	Analysis	6010		1	415466	05/19/18 16:05	LMH	TAL BUF
Total/NA	Prep	3005A			413922	05/12/18 09:19	KMP	TAL BUF
Total/NA	Analysis	6010		1	414338	05/14/18 19:08	LMH	TAL BUF
Total/NA	Analysis	7196A		1	413897	05/11/18 09:13	AED	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-135713-1

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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Accreditation/Certification Summary

Client: Honeywell International Inc

Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-135713-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Massachusetts	State Program	1	M-NY044	06-30-18 *

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
6010	3005A	Water	Chromium
6010	3005A	Water	Chromium, Dissolved
7196A		Water	Chromium, hexavalent

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Buffalo

Method Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-135713-1

Method	Method Description	Protocol	Laboratory
6010	Metals (ICP)	SW846	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
FILTRATION	Sample Filtration	None	TAL BUF

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Honeywell International Inc
Project/Site: Honeywell Conductor lab

TestAmerica Job ID: 480-135713-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-135713-1	C051018-TW1	Water	05/10/18 09:26	05/11/18 02:00
480-135713-2	C051018-TW2	Water	05/10/18 09:56	05/11/18 02:00
480-135713-3	C051010-TW3	Water	05/10/18 10:26	05/11/18 02:00
480-135713-4	C051010-TW4	Water	05/10/18 11:01	05/11/18 02:00

1

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TestAmerica Buffalo

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 480-135713-1

Login Number: 135713
List Number: 1
Creator: Williams, Christopher S

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	HONEYWELL
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-135714-1

Client Project/Site: May 2018 XRF Investigation

For:

Honeywell International Inc

Remediation & Evaluation Services

115 Tabor Road

Morris Plains, New Jersey 07950

Attn: Ms. Maria Kaouris



Authorized for release by:

5/24/2018 3:16:29 PM

Rebecca Jones, Project Management Assistant I

rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II

(716)504-9838

john.schove@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Job ID: 480-135714-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-135714-1

Comments

No additional comments.

Receipt

The samples were received on 5/11/2018 2:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

Metals

Method(s) 6010: At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

MassDEP Analytical Protocol Certification Form

Laboratory Name: TestAmerica Buffalo		Project #: 480-135714-1			
Project Location: Groton		RTN:			
This form provides certifications for the following data set: list Laboratory Sample ID Number(s): 480-135714-1(1-20)					
Matrices: <input type="checkbox"/> Groundwater/Surface Water <input checked="" type="checkbox"/> Soil/Sediment <input type="checkbox"/> Drinking Water <input type="checkbox"/> Air <input type="checkbox"/> Other:					
CAM Protocols (check all that apply below):					
8260 VOC CAM II A <input type="checkbox"/>	7470/7471 Hg CAM III B <input type="checkbox"/>	Mass DEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input checked="" type="checkbox"/>	Mass DEP APH CAM IX A <input type="checkbox"/>
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	Mass DEP EPH CAM IV B <input type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>
6010 Metals CAM III A <input checked="" type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9014 Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>	
Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status					
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
E	a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?				<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Responses to Questions G, H and I below are required for "Presumptive Certainty" status					
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350					
H	Were all QC performance standards specified in the CAM protocol(s) achieved?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ¹
¹ All negative responses must be addressed in an attached laboratory narrative.					
I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.					
Signature:			Position:	Project Management Assistant	
Printed Name:	Rebecca Jones		Date:	5/24/18 15:14	

Detection Summary

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-30 (0-5)

Lab Sample ID: 480-135714-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	43		0.58	0.23	mg/Kg	1	⊗	6010	Total/NA
Cr (VI)	0.17	J	0.47	0.13	mg/Kg	1	⊗	7196A	Total/NA

Client Sample ID: CXRF-30 (5-8)

Lab Sample ID: 480-135714-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	670		0.65	0.26	mg/Kg	1	⊗	6010	Total/NA
Cr (VI)	0.25	J	0.52	0.15	mg/Kg	1	⊗	7196A	Total/NA

Client Sample ID: CXRF-31 (0-5)

Lab Sample ID: 480-135714-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	42		0.58	0.23	mg/Kg	1	⊗	6010	Total/NA

Client Sample ID: CXRF-31 (5-8)

Lab Sample ID: 480-135714-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	300		0.57	0.23	mg/Kg	1	⊗	6010	Total/NA
Cr (VI)	1.9		0.46	0.13	mg/Kg	1	⊗	7196A	Total/NA

Client Sample ID: CXRF-32 (0-5)

Lab Sample ID: 480-135714-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	41		0.55	0.22	mg/Kg	1	⊗	6010	Total/NA

Client Sample ID: CXRF-32 (5-8)

Lab Sample ID: 480-135714-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	730		0.61	0.25	mg/Kg	1	⊗	6010	Total/NA
Cr (VI)	6.8		0.48	0.14	mg/Kg	1	⊗	7196A	Total/NA

Client Sample ID: CXRF-33 (0-5)

Lab Sample ID: 480-135714-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	54		0.56	0.22	mg/Kg	1	⊗	6010	Total/NA
Cr (VI)	0.17	J	0.47	0.13	mg/Kg	1	⊗	7196A	Total/NA

Client Sample ID: CXRF-33 (5-8)

Lab Sample ID: 480-135714-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	840		0.57	0.23	mg/Kg	1	⊗	6010	Total/NA
Cr (VI)	2.1		0.46	0.13	mg/Kg	1	⊗	7196A	Total/NA

Client Sample ID: CXRF-34 (0-5)

Lab Sample ID: 480-135714-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	62		0.62	0.25	mg/Kg	1	⊗	6010	Total/NA
Cr (VI)	0.19	J	0.52	0.15	mg/Kg	1	⊗	7196A	Total/NA

Client Sample ID: CXRF-34 (5-8)

Lab Sample ID: 480-135714-10

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-34 (5-8) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	340		0.74	0.30	mg/Kg	1	⊗	6010	Total/NA

Client Sample ID: CXRF-35 (0-5)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	85		0.59	0.24	mg/Kg	1	⊗	6010	Total/NA
Cr (VI)	0.18	J	0.49	0.14	mg/Kg	1	⊗	7196A	Total/NA

Client Sample ID: CXRF-35 (8-10)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	1100		0.61	0.24	mg/Kg	1	⊗	6010	Total/NA
Cr (VI)	0.18	J	0.50	0.14	mg/Kg	1	⊗	7196A	Total/NA

Client Sample ID: CXRF-36 (0-5)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	130		0.56	0.22	mg/Kg	1	⊗	6010	Total/NA
Cr (VI)	0.73		0.45	0.13	mg/Kg	1	⊗	7196A	Total/NA

Client Sample ID: CXRF-36 (10-13)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	230		0.55	0.22	mg/Kg	1	⊗	6010	Total/NA
Cr (VI)	2.4		0.44	0.12	mg/Kg	1	⊗	7196A	Total/NA

Client Sample ID: CXRF-37 (0-5)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	54	F1	0.55	0.22	mg/Kg	1	⊗	6010	Total/NA
Cr (VI)	0.16	J	0.45	0.13	mg/Kg	1	⊗	7196A	Total/NA

Client Sample ID: CXRF-37 (7-10)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	300		0.56	0.22	mg/Kg	1	⊗	6010	Total/NA
Cr (VI)	0.29	J	0.47	0.13	mg/Kg	1	⊗	7196A	Total/NA

Client Sample ID: CXRF-38 (0-5)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	110		0.53	0.21	mg/Kg	1	⊗	6010	Total/NA
Cr (VI)	0.61		0.45	0.13	mg/Kg	1	⊗	7196A	Total/NA

Client Sample ID: CXRF-38 (7-10)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	620		0.55	0.22	mg/Kg	1	⊗	6010	Total/NA
Cr (VI)	2.3		0.44	0.13	mg/Kg	1	⊗	7196A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-39 (0-5)

Lab Sample ID: 480-135714-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	38		0.55	0.22	mg/Kg	1	⊗	6010	Total/NA

Client Sample ID: CXRF-39 (7-10)

Lab Sample ID: 480-135714-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	930		0.58	0.23	mg/Kg	1	⊗	6010	Total/NA
Cr (VI)	0.22	J	0.47	0.13	mg/Kg	1	⊗	7196A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: Honeywell International Inc
 Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-30 (0-5)

Date Collected: 05/10/18 09:10

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-1

Matrix: Solid

Percent Solids: 86.5

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	43		0.58	0.23	mg/Kg	⊗	05/12/18 10:11	05/14/18 12:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.17	J	0.47	0.13	mg/Kg	⊗	05/22/18 10:50	05/23/18 12:36	1
Analyte									
Percent Moisture	13.5		0.1	0.1	%		05/12/18 05:39		1
Percent Solids	86.5		0.1	0.1	%		05/12/18 05:39		1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-30 (5-8)

Date Collected: 05/10/18 09:20

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-2

Matrix: Solid

Percent Solids: 76.1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	670		0.65	0.26	mg/Kg	⊗	05/12/18 10:11	05/14/18 13:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.25	J	0.52	0.15	mg/Kg	⊗	05/22/18 10:50	05/23/18 12:42	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.9		0.1	0.1	%		05/12/18 05:39		1
Percent Solids	76.1		0.1	0.1	%		05/12/18 05:39		1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-31 (0-5)

Lab Sample ID: 480-135714-3

Date Collected: 05/10/18 09:25

Matrix: Solid

Date Received: 05/11/18 02:00

Percent Solids: 86.4

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	42		0.58	0.23	mg/Kg	⊗	05/12/18 10:11	05/14/18 13:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.45	0.13	mg/Kg	⊗	05/22/18 10:50	05/23/18 12:44	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.6		0.1	0.1	%			05/12/18 05:39	1
Percent Solids	86.4		0.1	0.1	%			05/12/18 05:39	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-31 (5-8)

Date Collected: 05/10/18 09:30

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-4

Matrix: Solid

Percent Solids: 88.1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	300		0.57	0.23	mg/Kg	⊗	05/12/18 10:11	05/14/18 13:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	1.9		0.46	0.13	mg/Kg	⊗	05/22/18 10:50	05/23/18 12:47	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.9		0.1	0.1	%			05/12/18 05:39	1
Percent Solids	88.1		0.1	0.1	%			05/12/18 05:39	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-32 (0-5)

Date Collected: 05/10/18 09:35

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-5

Matrix: Solid

Percent Solids: 88.7

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	41		0.55	0.22	mg/Kg	⊗	05/12/18 10:11	05/14/18 13:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.45	0.13	mg/Kg	⊗	05/22/18 10:50	05/23/18 12:49	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.3		0.1	0.1	%			05/12/18 05:39	1
Percent Solids	88.7		0.1	0.1	%			05/12/18 05:39	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-32 (5-8)

Date Collected: 05/10/18 09:40

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-6

Matrix: Solid

Percent Solids: 82.5

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	730		0.61	0.25	mg/Kg	⊗	05/12/18 10:11	05/14/18 13:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	6.8		0.48	0.14	mg/Kg	⊗	05/22/18 10:50	05/23/18 12:50	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.5		0.1	0.1	%		05/12/18 05:39		1
Percent Solids	82.5		0.1	0.1	%		05/12/18 05:39		1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-33 (0-5)

Date Collected: 05/10/18 09:45

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-7

Matrix: Solid

Percent Solids: 86.3

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	54		0.56	0.22	mg/Kg	⊗	05/12/18 10:11	05/14/18 13:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.17	J	0.47	0.13	mg/Kg	⊗	05/22/18 10:50	05/23/18 12:51	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.7		0.1	0.1	%			05/12/18 05:39	1
Percent Solids	86.3		0.1	0.1	%			05/12/18 05:39	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-33 (5-8)

Date Collected: 05/10/18 09:50

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-8

Matrix: Solid

Percent Solids: 88.4

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	840		0.57	0.23	mg/Kg	⊗	05/12/18 10:11	05/14/18 13:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.1		0.46	0.13	mg/Kg	⊗	05/22/18 10:50	05/23/18 12:53	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.6		0.1	0.1	%			05/12/18 05:39	1
Percent Solids	88.4		0.1	0.1	%			05/12/18 05:39	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-34 (0-5)

Date Collected: 05/10/18 12:35

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-9

Matrix: Solid

Percent Solids: 77.3

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	62		0.62	0.25	mg/Kg	⊗	05/12/18 10:11	05/14/18 13:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.19	J	0.52	0.15	mg/Kg	⊗	05/22/18 10:50	05/23/18 12:54	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22.7		0.1	0.1	%			05/12/18 05:39	1
Percent Solids	77.3		0.1	0.1	%			05/12/18 05:39	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-34 (5-8)

Date Collected: 05/10/18 12:40

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-10

Matrix: Solid

Percent Solids: 64.6

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	340		0.74	0.30	mg/Kg	⊗	05/12/18 10:11	05/14/18 13:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.61	0.17	mg/Kg	⊗	05/22/18 10:50	05/23/18 12:55	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	35.4		0.1	0.1	%			05/12/18 05:39	1
Percent Solids	64.6		0.1	0.1	%			05/12/18 05:39	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-35 (0-5)

Date Collected: 05/10/18 12:45

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-11

Matrix: Solid

Percent Solids: 82.9

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	85		0.59	0.24	mg/Kg	⊗	05/12/18 10:11	05/14/18 13:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.18	J	0.49	0.14	mg/Kg	⊗	05/22/18 10:50	05/23/18 12:56	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17.1		0.1	0.1	%			05/12/18 05:39	1
Percent Solids	82.9		0.1	0.1	%			05/12/18 05:39	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-35 (8-10)

Date Collected: 05/10/18 12:50

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-12

Matrix: Solid

Percent Solids: 77.7

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	1100		0.61	0.24	mg/Kg	⊗	05/12/18 10:11	05/14/18 13:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.18	J	0.50	0.14	mg/Kg	⊗	05/22/18 10:50	05/23/18 12:58	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22.3		0.1	0.1	%		05/12/18 05:39		1
Percent Solids	77.7		0.1	0.1	%		05/12/18 05:39		1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-36 (0-5)

Date Collected: 05/10/18 13:00

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-13

Matrix: Solid

Percent Solids: 88.3

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	130		0.56	0.22	mg/Kg	⊗	05/12/18 10:11	05/14/18 13:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.73		0.45	0.13	mg/Kg	⊗	05/22/18 10:50	05/23/18 12:59	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.7		0.1	0.1	%			05/12/18 05:39	1
Percent Solids	88.3		0.1	0.1	%			05/12/18 05:39	1

Client Sample Results

Client: Honeywell International Inc

Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-36 (10-13)

Lab Sample ID: 480-135714-14

Date Collected: 05/10/18 13:05

Matrix: Solid

Date Received: 05/11/18 02:00

Percent Solids: 90.6

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	230		0.55	0.22	mg/Kg	⊗	05/11/18 17:37	05/16/18 12:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.4		0.44	0.12	mg/Kg	⊗	05/22/18 10:50	05/23/18 13:03	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.4		0.1	0.1	%			05/12/18 05:39	1
Percent Solids	90.6		0.1	0.1	%			05/12/18 05:39	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-37 (0-5)

Date Collected: 05/10/18 13:10

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-15

Matrix: Solid

Percent Solids: 90.0

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	54	F1	0.55	0.22	mg/Kg	⊗	05/11/18 17:37	05/16/18 12:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.16	J	0.45	0.13	mg/Kg	⊗	05/22/18 10:50	05/23/18 13:04	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.0		0.1	0.1	%			05/12/18 05:39	1
Percent Solids	90.0		0.1	0.1	%			05/12/18 05:39	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-37 (7-10)

Date Collected: 05/10/18 13:15

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-16

Matrix: Solid

Percent Solids: 86.7

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	300		0.56	0.22	mg/Kg	⊗	05/11/18 17:37	05/16/18 12:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.29	J	0.47	0.13	mg/Kg	⊗	05/22/18 10:50	05/23/18 13:05	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.3		0.1	0.1	%			05/12/18 05:39	1
Percent Solids	86.7		0.1	0.1	%			05/12/18 05:39	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-38 (0-5)

Date Collected: 05/10/18 13:20

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-17

Matrix: Solid

Percent Solids: 90.6

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	110		0.53	0.21	mg/Kg	⊗	05/11/18 17:37	05/16/18 12:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.61		0.45	0.13	mg/Kg	⊗	05/22/18 10:50	05/23/18 13:07	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.4		0.1	0.1	%			05/12/18 05:39	1
Percent Solids	90.6		0.1	0.1	%			05/12/18 05:39	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-38 (7-10)

Date Collected: 05/10/18 13:25

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-18

Matrix: Solid

Percent Solids: 89.3

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	620		0.55	0.22	mg/Kg	⊗	05/11/18 17:37	05/16/18 12:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.3		0.44	0.13	mg/Kg	⊗	05/22/18 10:50	05/23/18 13:08	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10.7		0.1	0.1	%			05/12/18 05:39	1
Percent Solids	89.3		0.1	0.1	%			05/12/18 05:39	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-39 (0-5)

Date Collected: 05/10/18 13:30

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-19

Matrix: Solid

Percent Solids: 87.8

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	38		0.55	0.22	mg/Kg	⊗	05/11/18 17:37	05/16/18 12:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.46	0.13	mg/Kg	⊗	05/22/18 10:50	05/23/18 13:09	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.2		0.1	0.1	%			05/12/18 05:39	1
Percent Solids	87.8		0.1	0.1	%			05/12/18 05:39	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-39 (7-10)

Date Collected: 05/10/18 13:35

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-20

Matrix: Solid

Percent Solids: 87.5

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	930		0.58	0.23	mg/Kg	⊗	05/11/18 17:37	05/16/18 12:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.22	J	0.47	0.13	mg/Kg	⊗	05/22/18 10:50	05/23/18 13:11	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.5		0.1	0.1	%			05/12/18 05:39	1
Percent Solids	87.5		0.1	0.1	%			05/12/18 05:39	1

QC Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-413945/1-A

Matrix: Solid

Analysis Batch: 414250

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 413945

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.50	0.20	mg/Kg		05/12/18 10:11	05/14/18 12:24	1

Lab Sample ID: LCDSRM 480-413945/18-A

Matrix: Solid

Analysis Batch: 414250

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 413945

Analyte	Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec.	RPD
				mg/Kg		Limits	Limit
Chromium	89.3	71.2				79.8	69.1 - 143.

3

Lab Sample ID: LCSSRM 480-413945/2-A

Matrix: Solid

Analysis Batch: 414250

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 413945

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec.
				mg/Kg		Limits
Chromium	89.3	72.6				81.3

3

Lab Sample ID: 480-135714-1 MS

Matrix: Solid

Analysis Batch: 414250

Client Sample ID: CXRF-30 (0-5)

Prep Type: Total/NA

Prep Batch: 413945

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.
						mg/Kg		Limits
Chromium	43		46.7	81.6			⊗	82

3

Lab Sample ID: 480-135714-1 MSD

Matrix: Solid

Analysis Batch: 414250

Client Sample ID: CXRF-30 (0-5)

Prep Type: Total/NA

Prep Batch: 413945

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.
						mg/Kg		RPD
Chromium	43		44.6	76.5			⊗	75

3

Lab Sample ID: MB 480-413947/1-A

Matrix: Solid

Analysis Batch: 414871

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 413947

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.50	0.20	mg/Kg		05/11/18 17:37	05/16/18 11:53	1

3

Lab Sample ID: LCDSRM 480-413947/3-A

Matrix: Solid

Analysis Batch: 414871

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 413947

Analyte	Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec.
				mg/Kg		RPD
Chromium	89.3	77.9				87.2

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QC Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-413947/2-A

Matrix: Solid

Analysis Batch: 414871

Analyte	Spike Added	LCSSRM	LCSSRM	Unit	D	%Rec	%Rec.
		Result	Qualifier				
Chromium	89.3	80.9		mg/Kg	90.6	69.1 - 143. 3	

Lab Sample ID: 480-135714-15 MS

Matrix: Solid

Analysis Batch: 414871

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Chromium	54	F1	44.0	81.8	F1	mg/Kg	⊗	63	75 - 125

Lab Sample ID: 480-135714-15 MSD

Matrix: Solid

Analysis Batch: 414871

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Chromium	54	F1	44.2	93.4		mg/Kg	⊗	89	75 - 125

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 180-245541/1-A

Matrix: Solid

Analysis Batch: 245696

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cr (VI)	ND		0.40	0.11	mg/Kg		05/22/18 10:50	05/23/18 12:32	1

Lab Sample ID: LCDSRM 180-245541/3-A

Matrix: Solid

Analysis Batch: 245696

Analyte	Spike	LCDSRM	LCDSRM	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier						
Cr (VI)	276	88.3		mg/Kg	32.0	31.3 - 120. 3		3	30

Lab Sample ID: LCSSRM 180-245541/2-A

Matrix: Solid

Analysis Batch: 245696

Analyte	Spike	LCSSRM	LCSSRM	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier						
Cr (VI)	276	90.8		mg/Kg	32.9	31.3 - 120. 3			

Lab Sample ID: 480-135714-1 MSI

Matrix: Solid

Analysis Batch: 245696

Analyte	Sample	Sample	Spike	MSI	MSI	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Cr (VI)	0.17	J	825	693		mg/Kg	⊗	84	75 - 125

TestAmerica Buffalo

QC Sample Results

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 480-135714-1 MSS

Matrix: Solid

Analysis Batch: 245696

Client Sample ID: CXRF-30 (0-5)

Prep Type: Total/NA

Prep Batch: 245541

Analyte	Sample	Sample	Spike	MSS	MSS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Cr (VI)	0.17	J	22.9	19.3		mg/Kg	⊗	84	75 - 125

Lab Sample ID: 480-135714-1 DU

Matrix: Solid

Analysis Batch: 245696

Client Sample ID: CXRF-30 (0-5)

Prep Type: Total/NA

Prep Batch: 245541

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Cr (VI)	0.17	J	0.167	J	mg/Kg	⊗	0.4	35

QC Association Summary

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Metals

Prep Batch: 413945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135714-1	CXRF-30 (0-5)	Total/NA	Solid	3050B	5
480-135714-2	CXRF-30 (5-8)	Total/NA	Solid	3050B	5
480-135714-3	CXRF-31 (0-5)	Total/NA	Solid	3050B	5
480-135714-4	CXRF-31 (5-8)	Total/NA	Solid	3050B	5
480-135714-5	CXRF-32 (0-5)	Total/NA	Solid	3050B	5
480-135714-6	CXRF-32 (5-8)	Total/NA	Solid	3050B	5
480-135714-7	CXRF-33 (0-5)	Total/NA	Solid	3050B	5
480-135714-8	CXRF-33 (5-8)	Total/NA	Solid	3050B	5
480-135714-9	CXRF-34 (0-5)	Total/NA	Solid	3050B	5
480-135714-10	CXRF-34 (5-8)	Total/NA	Solid	3050B	5
480-135714-11	CXRF-35 (0-5)	Total/NA	Solid	3050B	5
480-135714-12	CXRF-35 (8-10)	Total/NA	Solid	3050B	5
480-135714-13	CXRF-36 (0-5)	Total/NA	Solid	3050B	5
MB 480-413945/1-A	Method Blank	Total/NA	Solid	3050B	11
LCDSRM 480-413945/18-A	Lab Control Sample Dup	Total/NA	Solid	3050B	12
LCSSRM 480-413945/2-A	Lab Control Sample	Total/NA	Solid	3050B	12
480-135714-1 MS	CXRF-30 (0-5)	Total/NA	Solid	3050B	13
480-135714-1 MSD	CXRF-30 (0-5)	Total/NA	Solid	3050B	13

Prep Batch: 413947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135714-14	CXRF-36 (10-13)	Total/NA	Solid	3050B	14
480-135714-15	CXRF-37 (0-5)	Total/NA	Solid	3050B	14
480-135714-16	CXRF-37 (7-10)	Total/NA	Solid	3050B	14
480-135714-17	CXRF-38 (0-5)	Total/NA	Solid	3050B	14
480-135714-18	CXRF-38 (7-10)	Total/NA	Solid	3050B	14
480-135714-19	CXRF-39 (0-5)	Total/NA	Solid	3050B	14
480-135714-20	CXRF-39 (7-10)	Total/NA	Solid	3050B	14
MB 480-413947/1-A	Method Blank	Total/NA	Solid	3050B	14
LCDSRM 480-413947/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	14
LCSSRM 480-413947/2-A	Lab Control Sample	Total/NA	Solid	3050B	14
480-135714-15 MS	CXRF-37 (0-5)	Total/NA	Solid	3050B	14
480-135714-15 MSD	CXRF-37 (0-5)	Total/NA	Solid	3050B	14

Analysis Batch: 414250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135714-1	CXRF-30 (0-5)	Total/NA	Solid	6010	413945
480-135714-2	CXRF-30 (5-8)	Total/NA	Solid	6010	413945
480-135714-3	CXRF-31 (0-5)	Total/NA	Solid	6010	413945
480-135714-4	CXRF-31 (5-8)	Total/NA	Solid	6010	413945
480-135714-5	CXRF-32 (0-5)	Total/NA	Solid	6010	413945
480-135714-6	CXRF-32 (5-8)	Total/NA	Solid	6010	413945
480-135714-7	CXRF-33 (0-5)	Total/NA	Solid	6010	413945
480-135714-8	CXRF-33 (5-8)	Total/NA	Solid	6010	413945
480-135714-9	CXRF-34 (0-5)	Total/NA	Solid	6010	413945
480-135714-10	CXRF-34 (5-8)	Total/NA	Solid	6010	413945
480-135714-11	CXRF-35 (0-5)	Total/NA	Solid	6010	413945
480-135714-12	CXRF-35 (8-10)	Total/NA	Solid	6010	413945
480-135714-13	CXRF-36 (0-5)	Total/NA	Solid	6010	413945
MB 480-413945/1-A	Method Blank	Total/NA	Solid	6010	413945
LCDSRM 480-413945/18-A	Lab Control Sample Dup	Total/NA	Solid	6010	413945

TestAmerica Buffalo

QC Association Summary

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Metals (Continued)

Analysis Batch: 414250 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSSRM 480-413945/2-A	Lab Control Sample	Total/NA	Solid	6010	413945
480-135714-1 MS	CXRF-30 (0-5)	Total/NA	Solid	6010	413945
480-135714-1 MSD	CXRF-30 (0-5)	Total/NA	Solid	6010	413945

Analysis Batch: 414871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135714-14	CXRF-36 (10-13)	Total/NA	Solid	6010	413947
480-135714-15	CXRF-37 (0-5)	Total/NA	Solid	6010	413947
480-135714-16	CXRF-37 (7-10)	Total/NA	Solid	6010	413947
480-135714-17	CXRF-38 (0-5)	Total/NA	Solid	6010	413947
480-135714-18	CXRF-38 (7-10)	Total/NA	Solid	6010	413947
480-135714-19	CXRF-39 (0-5)	Total/NA	Solid	6010	413947
480-135714-20	CXRF-39 (7-10)	Total/NA	Solid	6010	413947
MB 480-413947/1-A	Method Blank	Total/NA	Solid	6010	413947
LCDSRM 480-413947/3-A	Lab Control Sample Dup	Total/NA	Solid	6010	413947
LCSSRM 480-413947/2-A	Lab Control Sample	Total/NA	Solid	6010	413947
480-135714-15 MS	CXRF-37 (0-5)	Total/NA	Solid	6010	413947
480-135714-15 MSD	CXRF-37 (0-5)	Total/NA	Solid	6010	413947

General Chemistry

Prep Batch: 245541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135714-1	CXRF-30 (0-5)	Total/NA	Solid	3060A	
480-135714-2	CXRF-30 (5-8)	Total/NA	Solid	3060A	
480-135714-3	CXRF-31 (0-5)	Total/NA	Solid	3060A	
480-135714-4	CXRF-31 (5-8)	Total/NA	Solid	3060A	
480-135714-5	CXRF-32 (0-5)	Total/NA	Solid	3060A	
480-135714-6	CXRF-32 (5-8)	Total/NA	Solid	3060A	
480-135714-7	CXRF-33 (0-5)	Total/NA	Solid	3060A	
480-135714-8	CXRF-33 (5-8)	Total/NA	Solid	3060A	
480-135714-9	CXRF-34 (0-5)	Total/NA	Solid	3060A	
480-135714-10	CXRF-34 (5-8)	Total/NA	Solid	3060A	
480-135714-11	CXRF-35 (0-5)	Total/NA	Solid	3060A	
480-135714-12	CXRF-35 (8-10)	Total/NA	Solid	3060A	
480-135714-13	CXRF-36 (0-5)	Total/NA	Solid	3060A	
480-135714-14	CXRF-36 (10-13)	Total/NA	Solid	3060A	
480-135714-15	CXRF-37 (0-5)	Total/NA	Solid	3060A	
480-135714-16	CXRF-37 (7-10)	Total/NA	Solid	3060A	
480-135714-17	CXRF-38 (0-5)	Total/NA	Solid	3060A	
480-135714-18	CXRF-38 (7-10)	Total/NA	Solid	3060A	
480-135714-19	CXRF-39 (0-5)	Total/NA	Solid	3060A	
480-135714-20	CXRF-39 (7-10)	Total/NA	Solid	3060A	
MB 180-245541/1-A	Method Blank	Total/NA	Solid	3060A	
LCDSRM 180-245541/3-A	Lab Control Sample Dup	Total/NA	Solid	3060A	
LCSSRM 180-245541/2-A	Lab Control Sample	Total/NA	Solid	3060A	
480-135714-1 MSI	CXRF-30 (0-5)	Total/NA	Solid	3060A	
480-135714-1 MSS	CXRF-30 (0-5)	Total/NA	Solid	3060A	
480-135714-1 DU	CXRF-30 (0-5)	Total/NA	Solid	3060A	

QC Association Summary

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

General Chemistry (Continued)

Analysis Batch: 245696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135714-1	CXRF-30 (0-5)	Total/NA	Solid	7196A	245541
480-135714-2	CXRF-30 (5-8)	Total/NA	Solid	7196A	245541
480-135714-3	CXRF-31 (0-5)	Total/NA	Solid	7196A	245541
480-135714-4	CXRF-31 (5-8)	Total/NA	Solid	7196A	245541
480-135714-5	CXRF-32 (0-5)	Total/NA	Solid	7196A	245541
480-135714-6	CXRF-32 (5-8)	Total/NA	Solid	7196A	245541
480-135714-7	CXRF-33 (0-5)	Total/NA	Solid	7196A	245541
480-135714-8	CXRF-33 (5-8)	Total/NA	Solid	7196A	245541
480-135714-9	CXRF-34 (0-5)	Total/NA	Solid	7196A	245541
480-135714-10	CXRF-34 (5-8)	Total/NA	Solid	7196A	245541
480-135714-11	CXRF-35 (0-5)	Total/NA	Solid	7196A	245541
480-135714-12	CXRF-35 (8-10)	Total/NA	Solid	7196A	245541
480-135714-13	CXRF-36 (0-5)	Total/NA	Solid	7196A	245541
480-135714-14	CXRF-36 (10-13)	Total/NA	Solid	7196A	245541
480-135714-15	CXRF-37 (0-5)	Total/NA	Solid	7196A	245541
480-135714-16	CXRF-37 (7-10)	Total/NA	Solid	7196A	245541
480-135714-17	CXRF-38 (0-5)	Total/NA	Solid	7196A	245541
480-135714-18	CXRF-38 (7-10)	Total/NA	Solid	7196A	245541
480-135714-19	CXRF-39 (0-5)	Total/NA	Solid	7196A	245541
480-135714-20	CXRF-39 (7-10)	Total/NA	Solid	7196A	245541
MB 180-245541/1-A	Method Blank	Total/NA	Solid	7196A	245541
LCDSRM 180-245541/3-A	Lab Control Sample Dup	Total/NA	Solid	7196A	245541
LCSSRM 180-245541/2-A	Lab Control Sample	Total/NA	Solid	7196A	245541
480-135714-1 MSI	CXRF-30 (0-5)	Total/NA	Solid	7196A	245541
480-135714-1 MSS	CXRF-30 (0-5)	Total/NA	Solid	7196A	245541
480-135714-1 DU	CXRF-30 (0-5)	Total/NA	Solid	7196A	245541

Analysis Batch: 414004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-135714-1	CXRF-30 (0-5)	Total/NA	Solid	Moisture	
480-135714-2	CXRF-30 (5-8)	Total/NA	Solid	Moisture	
480-135714-3	CXRF-31 (0-5)	Total/NA	Solid	Moisture	
480-135714-4	CXRF-31 (5-8)	Total/NA	Solid	Moisture	
480-135714-5	CXRF-32 (0-5)	Total/NA	Solid	Moisture	
480-135714-6	CXRF-32 (5-8)	Total/NA	Solid	Moisture	
480-135714-7	CXRF-33 (0-5)	Total/NA	Solid	Moisture	
480-135714-8	CXRF-33 (5-8)	Total/NA	Solid	Moisture	
480-135714-9	CXRF-34 (0-5)	Total/NA	Solid	Moisture	
480-135714-10	CXRF-34 (5-8)	Total/NA	Solid	Moisture	
480-135714-11	CXRF-35 (0-5)	Total/NA	Solid	Moisture	
480-135714-12	CXRF-35 (8-10)	Total/NA	Solid	Moisture	
480-135714-13	CXRF-36 (0-5)	Total/NA	Solid	Moisture	
480-135714-14	CXRF-36 (10-13)	Total/NA	Solid	Moisture	
480-135714-15	CXRF-37 (0-5)	Total/NA	Solid	Moisture	
480-135714-16	CXRF-37 (7-10)	Total/NA	Solid	Moisture	
480-135714-17	CXRF-38 (0-5)	Total/NA	Solid	Moisture	
480-135714-18	CXRF-38 (7-10)	Total/NA	Solid	Moisture	
480-135714-19	CXRF-39 (0-5)	Total/NA	Solid	Moisture	
480-135714-20	CXRF-39 (7-10)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-30 (0-5)

Lab Sample ID: 480-135714-1

Matrix: Solid

Date Collected: 05/10/18 09:10

Date Received: 05/11/18 02:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-30 (0-5)

Lab Sample ID: 480-135714-1

Matrix: Solid

Date Collected: 05/10/18 09:10

Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413945	05/12/18 10:11	KMP	TAL BUF
Total/NA	Analysis	6010		1	414250	05/14/18 12:32	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 12:36	SES	TAL PIT

Client Sample ID: CXRF-30 (5-8)

Lab Sample ID: 480-135714-2

Matrix: Solid

Date Collected: 05/10/18 09:20

Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-30 (5-8)

Lab Sample ID: 480-135714-2

Matrix: Solid

Date Received: 05/11/18 02:00

Percent Solids: 76.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413945	05/12/18 10:11	KMP	TAL BUF
Total/NA	Analysis	6010		1	414250	05/14/18 13:02	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 12:42	SES	TAL PIT

Client Sample ID: CXRF-31 (0-5)

Lab Sample ID: 480-135714-3

Matrix: Solid

Date Collected: 05/10/18 09:25

Percent Solids: 76.1

Date Received: 05/11/18 02:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-31 (0-5)

Lab Sample ID: 480-135714-3

Matrix: Solid

Date Collected: 05/10/18 09:25

Percent Solids: 86.4

Date Received: 05/11/18 02:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413945	05/12/18 10:11	KMP	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-31 (0-5)

Date Collected: 05/10/18 09:25

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-3

Matrix: Solid

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010		1	414250	05/14/18 13:06	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 12:44	SES	TAL PIT

Client Sample ID: CXRF-31 (5-8)

Date Collected: 05/10/18 09:30

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-31 (5-8)

Date Collected: 05/10/18 09:30

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-4

Matrix: Solid

Percent Solids: 88.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413945	05/12/18 10:11	KMP	TAL BUF
Total/NA	Analysis	6010		1	414250	05/14/18 13:10	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 12:47	SES	TAL PIT

Client Sample ID: CXRF-32 (0-5)

Date Collected: 05/10/18 09:35

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-32 (0-5)

Date Collected: 05/10/18 09:35

Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-5

Matrix: Solid

Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413945	05/12/18 10:11	KMP	TAL BUF
Total/NA	Analysis	6010		1	414250	05/14/18 13:14	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 12:49	SES	TAL PIT

TestAmerica Buffalo

Lab Chronicle

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-32 (5-8)

Date Collected: 05/10/18 09:40
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-32 (5-8)

Date Collected: 05/10/18 09:40
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-6

Matrix: Solid
Percent Solids: 82.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413945	05/12/18 10:11	KMP	TAL BUF
Total/NA	Analysis	6010		1	414250	05/14/18 13:18	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 12:50	SES	TAL PIT

Client Sample ID: CXRF-33 (0-5)

Date Collected: 05/10/18 09:45
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-33 (0-5)

Date Collected: 05/10/18 09:45
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-7

Matrix: Solid
Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413945	05/12/18 10:11	KMP	TAL BUF
Total/NA	Analysis	6010		1	414250	05/14/18 13:22	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 12:51	SES	TAL PIT

Client Sample ID: CXRF-33 (5-8)

Date Collected: 05/10/18 09:50
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-33 (5-8)

Date Collected: 05/10/18 09:50
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-8

Matrix: Solid
Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413945	05/12/18 10:11	KMP	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-33 (5-8)

Date Collected: 05/10/18 09:50
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-8

Matrix: Solid
Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010		1	414250	05/14/18 13:37	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 12:53	SES	TAL PIT

Client Sample ID: CXRF-34 (0-5)

Date Collected: 05/10/18 12:35
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-34 (0-5)

Date Collected: 05/10/18 12:35
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-9

Matrix: Solid
Percent Solids: 77.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413945	05/12/18 10:11	KMP	TAL BUF
Total/NA	Analysis	6010		1	414250	05/14/18 13:41	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 12:54	SES	TAL PIT

Client Sample ID: CXRF-34 (5-8)

Date Collected: 05/10/18 12:40
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-34 (5-8)

Date Collected: 05/10/18 12:40
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-10

Matrix: Solid
Percent Solids: 64.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413945	05/12/18 10:11	KMP	TAL BUF
Total/NA	Analysis	6010		1	414250	05/14/18 13:45	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 12:55	SES	TAL PIT

Lab Chronicle

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-35 (0-5)

Date Collected: 05/10/18 12:45
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-11

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-35 (0-5)

Date Collected: 05/10/18 12:45
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-11

Matrix: Solid
Percent Solids: 82.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413945	05/12/18 10:11	KMP	TAL BUF
Total/NA	Analysis	6010		1	414250	05/14/18 13:48	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 12:56	SES	TAL PIT

Client Sample ID: CXRF-35 (8-10)

Date Collected: 05/10/18 12:50
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-12

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-35 (8-10)

Date Collected: 05/10/18 12:50
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-12

Matrix: Solid
Percent Solids: 77.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413945	05/12/18 10:11	KMP	TAL BUF
Total/NA	Analysis	6010		1	414250	05/14/18 13:52	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 12:58	SES	TAL PIT

Client Sample ID: CXRF-36 (0-5)

Date Collected: 05/10/18 13:00
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-13

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-36 (0-5)

Date Collected: 05/10/18 13:00
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-13

Matrix: Solid
Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413945	05/12/18 10:11	KMP	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-36 (0-5)

Date Collected: 05/10/18 13:00
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-13

Matrix: Solid
Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010		1	414250	05/14/18 13:56	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 12:59	SES	TAL PIT

Client Sample ID: CXRF-36 (10-13)

Date Collected: 05/10/18 13:05
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-14

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-36 (10-13)

Date Collected: 05/10/18 13:05
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-14

Matrix: Solid
Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413947	05/11/18 17:37	KMP	TAL BUF
Total/NA	Analysis	6010		1	414871	05/16/18 12:04	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 13:03	SES	TAL PIT

Client Sample ID: CXRF-37 (0-5)

Date Collected: 05/10/18 13:10
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-15

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-37 (0-5)

Date Collected: 05/10/18 13:10
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-15

Matrix: Solid
Percent Solids: 90.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413947	05/11/18 17:37	KMP	TAL BUF
Total/NA	Analysis	6010		1	414871	05/16/18 12:08	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 13:04	SES	TAL PIT

Lab Chronicle

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-37 (7-10)

Date Collected: 05/10/18 13:15
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-16

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-37 (7-10)

Date Collected: 05/10/18 13:15
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-16

Matrix: Solid
Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413947	05/11/18 17:37	KMP	TAL BUF
Total/NA	Analysis	6010		1	414871	05/16/18 12:36	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 13:05	SES	TAL PIT

Client Sample ID: CXRF-38 (0-5)

Date Collected: 05/10/18 13:20
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-17

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-38 (0-5)

Date Collected: 05/10/18 13:20
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-17

Matrix: Solid
Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413947	05/11/18 17:37	KMP	TAL BUF
Total/NA	Analysis	6010		1	414871	05/16/18 12:40	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 13:07	SES	TAL PIT

Client Sample ID: CXRF-38 (7-10)

Date Collected: 05/10/18 13:25
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-18

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-38 (7-10)

Date Collected: 05/10/18 13:25
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-18

Matrix: Solid
Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413947	05/11/18 17:37	KMP	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Client Sample ID: CXRF-38 (7-10)

Date Collected: 05/10/18 13:25
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-18

Matrix: Solid
Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010		1	414871	05/16/18 12:44	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 13:08	SES	TAL PIT

Client Sample ID: CXRF-39 (0-5)

Date Collected: 05/10/18 13:30
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-19

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-39 (0-5)

Date Collected: 05/10/18 13:30
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-19

Matrix: Solid
Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413947	05/11/18 17:37	KMP	TAL BUF
Total/NA	Analysis	6010		1	414871	05/16/18 12:47	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 13:09	SES	TAL PIT

Client Sample ID: CXRF-39 (7-10)

Date Collected: 05/10/18 13:35
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-20

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	414004	05/12/18 05:39	CSW	TAL BUF

Client Sample ID: CXRF-39 (7-10)

Date Collected: 05/10/18 13:35
Date Received: 05/11/18 02:00

Lab Sample ID: 480-135714-20

Matrix: Solid
Percent Solids: 87.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			413947	05/11/18 17:37	KMP	TAL BUF
Total/NA	Analysis	6010		1	414871	05/16/18 12:51	MTM2	TAL BUF
Total/NA	Prep	3060A			245541	05/22/18 10:50	SES	TAL PIT
Total/NA	Analysis	7196A		1	245696	05/23/18 13:11	SES	TAL PIT

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

TestAmerica Buffalo

Accreditation/Certification Summary

Client: Honeywell International Inc

Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Massachusetts	State Program	1	M-NY044	06-30-18 *
The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:				
Analysis Method 6010	Prep Method 3050B	Matrix Solid	Analyte Chromium	
Moisture		Solid	Percent Moisture	
Moisture		Solid	Percent Solids	

Laboratory: TestAmerica Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-18
California	State Program	9	2891	04-30-19
Connecticut	State Program	1	PH-0688	09-30-18
Florida	NELAP	4	E871008	06-30-18
Illinois	NELAP	5	200005	06-30-18
Kansas	NELAP	7	E-10350	01-31-19
Louisiana	NELAP	6	04041	06-30-18
Nevada	State Program	9	PA00164	07-31-18
New Hampshire	NELAP	1	2030	04-04-19
New Jersey	NELAP	2	PA005	06-30-18
New York	NELAP	2	11182	03-31-19
North Carolina (WW/SW)	State Program	4	434	12-31-18
Oregon	NELAP Secondary AB	10	PA-2151	01-28-19
Pennsylvania	NELAP	3	02-00416	04-30-19
South Carolina	State Program	4	89014	04-30-18 *
Texas	NELAP	6	T104704528-15-2	03-31-19
US Fish & Wildlife	Federal		LE94312A-1	07-31-18
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-18
Virginia	NELAP	3	460189	09-14-18
West Virginia DEP	State Program	3	142	01-31-19
Wisconsin	State Program	5	998027800	08-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Honeywell International Inc
Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Method	Method Description	Protocol	Laboratory
6010	Metals (ICP)	SW846	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL PIT
Moisture	Percent Moisture	EPA	TAL BUF
3050B	Preparation, Metals	SW846	TAL BUF
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Sample Summary

Client: Honeywell International Inc
 Project/Site: May 2018 XRF Investigation

TestAmerica Job ID: 480-135714-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-135714-1	CXRF-30 (0-5)	Solid	05/10/18 09:10	05/11/18 02:00
480-135714-2	CXRF-30 (5-8)	Solid	05/10/18 09:20	05/11/18 02:00
480-135714-3	CXRF-31 (0-5)	Solid	05/10/18 09:25	05/11/18 02:00
480-135714-4	CXRF-31 (5-8)	Solid	05/10/18 09:30	05/11/18 02:00
480-135714-5	CXRF-32 (0-5)	Solid	05/10/18 09:35	05/11/18 02:00
480-135714-6	CXRF-32 (5-8)	Solid	05/10/18 09:40	05/11/18 02:00
480-135714-7	CXRF-33 (0-5)	Solid	05/10/18 09:45	05/11/18 02:00
480-135714-8	CXRF-33 (5-8)	Solid	05/10/18 09:50	05/11/18 02:00
480-135714-9	CXRF-34 (0-5)	Solid	05/10/18 12:35	05/11/18 02:00
480-135714-10	CXRF-34 (5-8)	Solid	05/10/18 12:40	05/11/18 02:00
480-135714-11	CXRF-35 (0-5)	Solid	05/10/18 12:45	05/11/18 02:00
480-135714-12	CXRF-35 (8-10)	Solid	05/10/18 12:50	05/11/18 02:00
480-135714-13	CXRF-36 (0-5)	Solid	05/10/18 13:00	05/11/18 02:00
480-135714-14	CXRF-36 (10-13)	Solid	05/10/18 13:05	05/11/18 02:00
480-135714-15	CXRF-37 (0-5)	Solid	05/10/18 13:10	05/11/18 02:00
480-135714-16	CXRF-37 (7-10)	Solid	05/10/18 13:15	05/11/18 02:00
480-135714-17	CXRF-38 (0-5)	Solid	05/10/18 13:20	05/11/18 02:00
480-135714-18	CXRF-38 (7-10)	Solid	05/10/18 13:25	05/11/18 02:00
480-135714-19	CXRF-39 (0-5)	Solid	05/10/18 13:30	05/11/18 02:00
480-135714-20	CXRF-39 (7-10)	Solid	05/10/18 13:35	05/11/18 02:00

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366325-Boston

AESI Ref: 38450-55525

C.O.C #: 90517

Lab Use Only

Lab Proj #

Lab ID

Honeywell

Chain Of Custody / Analysis Request



480-135714 COC

TestAmerica Buffalo		Honeywell	
10 Hackwood Drive Amherst, NY 14228 Tel: 716.664.9838 Fax: 716.691.7091 Contact: JOHN SCHONE		Site Name: Conductributary May 2018 XRF Investigation	
Client Contact: (name, co, address)		Location of Site: (city, Massachusetts)	
Honeywell International Inc 101 Columbia Road Morristown, NJ 07962		Preservative: 0	
Hardcopy Report To: Chris Ricardi (Wood E&IS) 207.775.5401		Analysis Turnaround Time: 10	
Invoice To: Honeywell International Inc		Standard - Basis Changes Authorized for: 2 weeks -	
		Next Day -	

Job No.
PART 1 of
Lab Proj #
Lab ID

What is in the Test File? Mouse over here.
Written and maintained by AESI (Ver 3.7) 02-01-05 resgroup@aol.com

Special Instructions: MCP Protocol, GVV-1 Detection Limits, MCP/Q/MOC Report, -**LOWEST RL POSSIBLE**.
SW4468260B Validable Organic Compounds, 7196MCP Hexavalent Chromium and 6010MCP Total Chromium.

Refugee ID#	Company	Wood E&IS	Received by	PL	Company	Condition	Custodial Seal's Impact
<i>Chris Ricardi</i>	Date/Time	5/10/18 10:10	<i>Chris Ricardi</i>	5/10/18 10:10	<i>TJF</i>	Date/Time 10:10	Cooler Temp
Reproduced by	Company	Received by	<i>TJF</i>	TJF	Company	Condition	Custodial Seal's Impact
	Date/Time			5-11-18	Date/Time	0200	Cooler Temp

Preservatives: 0 = None; [1 = HCl]; [2 = HNO3]; [3 = H2SO4]; [4 = NaOH]; [5 = Zn Acetate]; [6 = MeOH]; [7 = NaHSO4]; 8 = Other (specify):

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228

Tel 716.504.9838 | Fax 716.691.7991, Contact JOHN SCHONE

Client Contact: (name, co., address)

Privileged & Confidential

N

Site Name:

Conductors/May 2018 XRF Investigation

Location of Site:

(Groton, Massachusetts)

Preservative:

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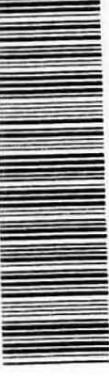
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Chain of Custody Record

testAmerica

THE LEADER IN ENVIRONMENTAL TESTING

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991



480-135714 Chain of Custody

Client Information (Sub Contract Lab)	Sampler:	Lab PW: Schoove, John R
Client Contact: Shipping/Receiving Company	Phone:	E-Mail: john.schoove@testamerica.com

Accreditations Required (See note):

State Program - Massachusetts

Job #:

480-135714-1

Preservation Codes:

- A - HCl
- B - NaOH
- C - Zn Acetate
- D - Nitric Acid
- E - NaHSO4
- F - MeOH
- G - Ammonium
- H - Ascorbic Acid
- I - Ice
- J - DI Water
- K - EDTA
- L - EDA
- Z - other (specify)

Other:

Analysis Requested									
Total Number of Contaminants									
7196MCP/3060A Chromium, Hexavalent									
Performance Sample (Yes or No)									
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Sample (W=water, S=solid, O=waste/oil, B=tissue, A=air)	Preservation Code	Special Instructions/Note:			
CXRF-30 (0-5) (480-135714-1)	5/10/18	09:10	Solid	X					
CXRF-30 (5-8) (480-135714-2)	5/10/18	09:20	Solid	X					
CXRF-31 (0-5) (480-135714-3)	5/10/18	09:25	Solid	X					
CXRF-31 (5-8) (480-135714-4)	5/10/18	09:30	Solid	X					
CXRF-32 (0-5) (480-135714-5)	5/10/18	09:35	Solid	X					
CXRF-32 (5-8) (480-135714-6)	5/10/18	09:40	Solid	X					
CXRF-33 (0-5) (480-135714-7)	5/10/18	09:45	Solid	X					
CXRF-33 (5-8) (480-135714-8)	5/10/18	09:50	Solid	X					
CXRF-34 (0-5) (480-135714-9)	5/10/18	12:35	Solid	X					

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analytic & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification

Unconfirmed

Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client
 Disposal By Lab
 Archive For _____ Months

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: <i>John Schoove</i>	Date/Time: <i>5/11/18 17:00</i>	Company: <i>testAmerica</i>	Date/Time: <i>5/11/18 10:00</i> Company: <i>testAmerica</i>
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:

Custody Seals Intact: Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Chain of Custody Record

Ver: 09/20/2016

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Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 480-135714-1

Login Number: 135714

List Source: TestAmerica Buffalo

List Number: 1

Creator: Williams, Christopher S

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	HONEYWELL
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 480-135714-1

Login Number: 135714

List Source: TestAmerica Pittsburgh

List Number: 2

List Creation: 05/12/18 04:26 PM

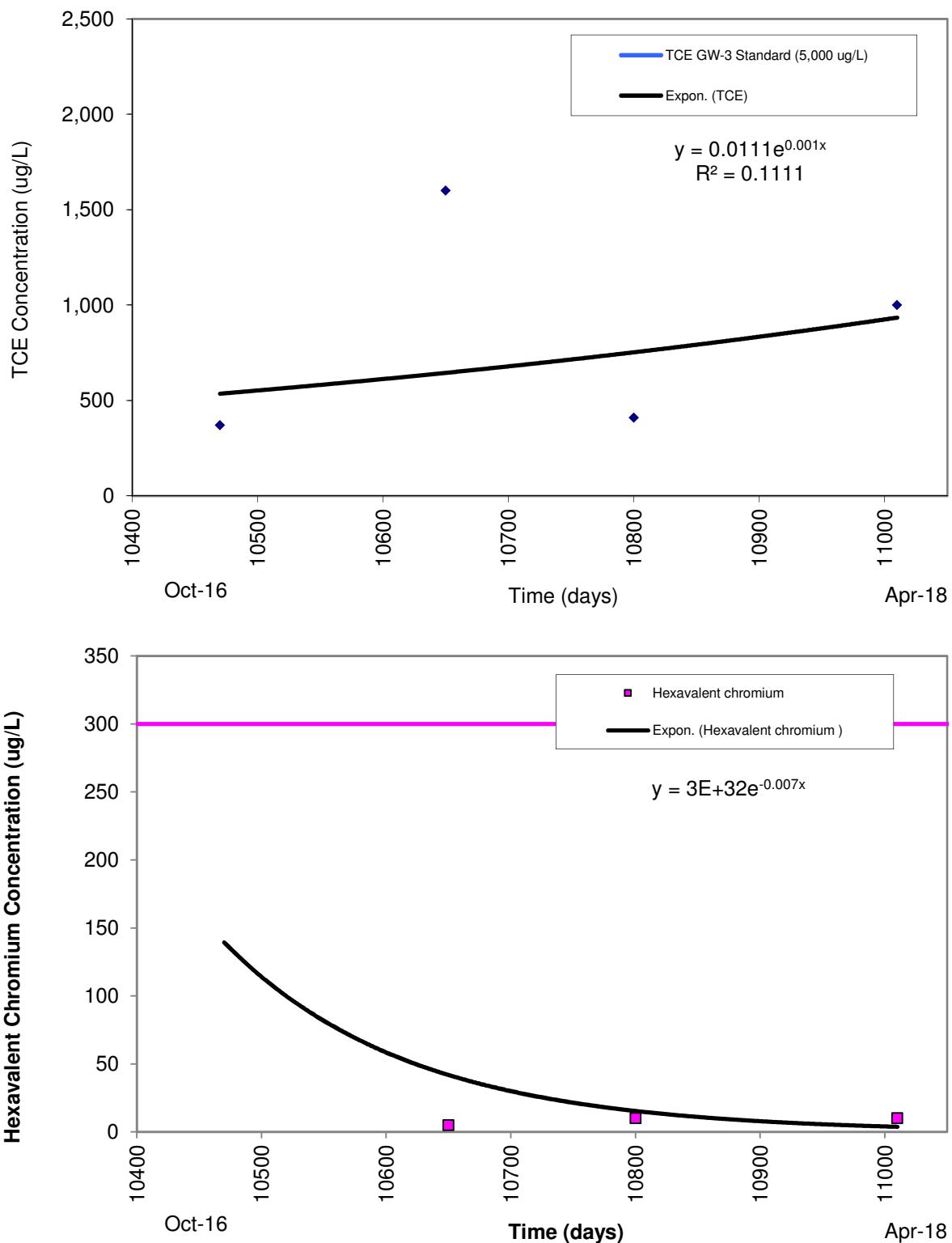
Creator: Neri, Tom

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	3.1/2.1
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX D

GROUNDWATER AND SURFACE WATER TREND GRAPHS

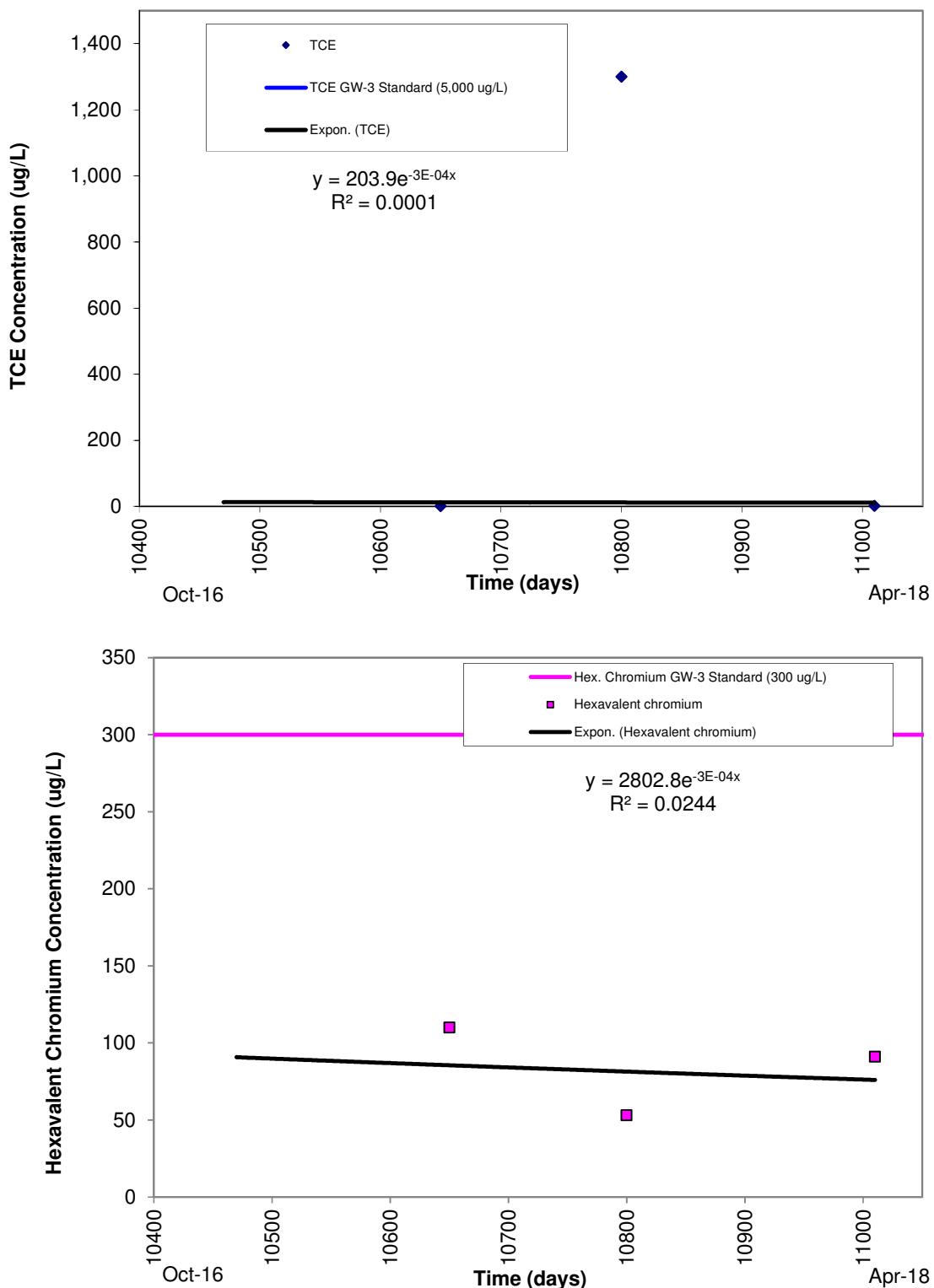
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
ON-PROPERTY MONITORING WELL CIW-1B
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

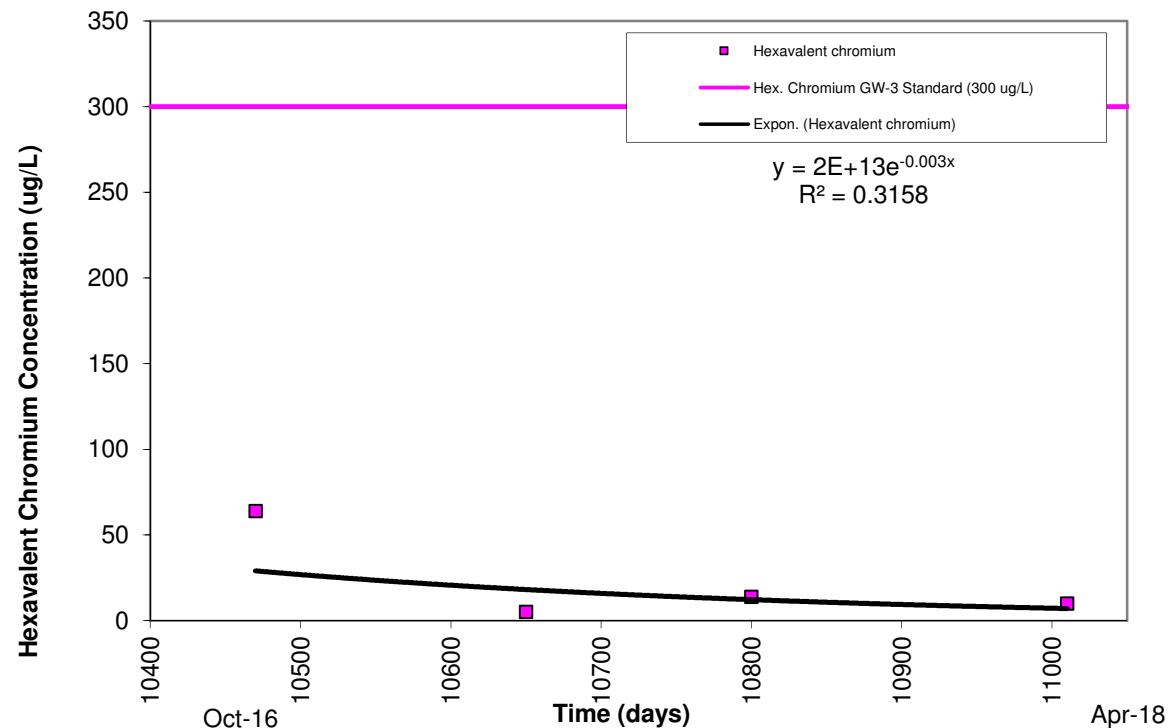
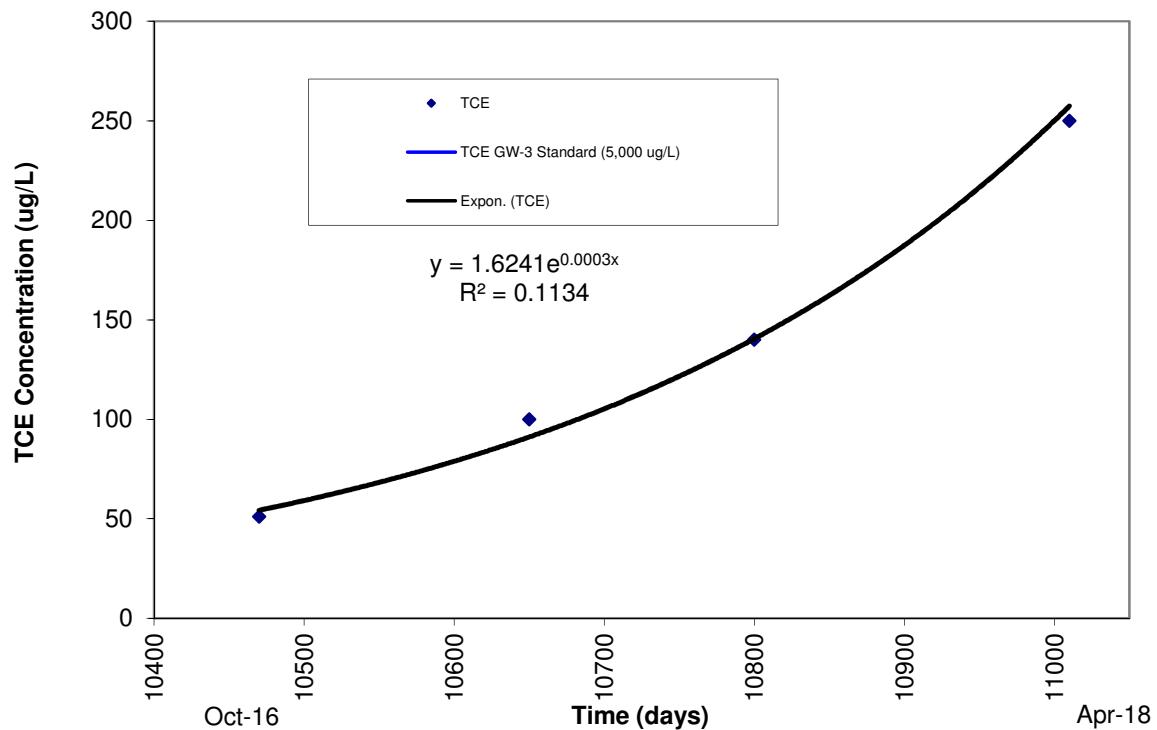
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
ON-PROPERTY MONITORING WELL CLW-5
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

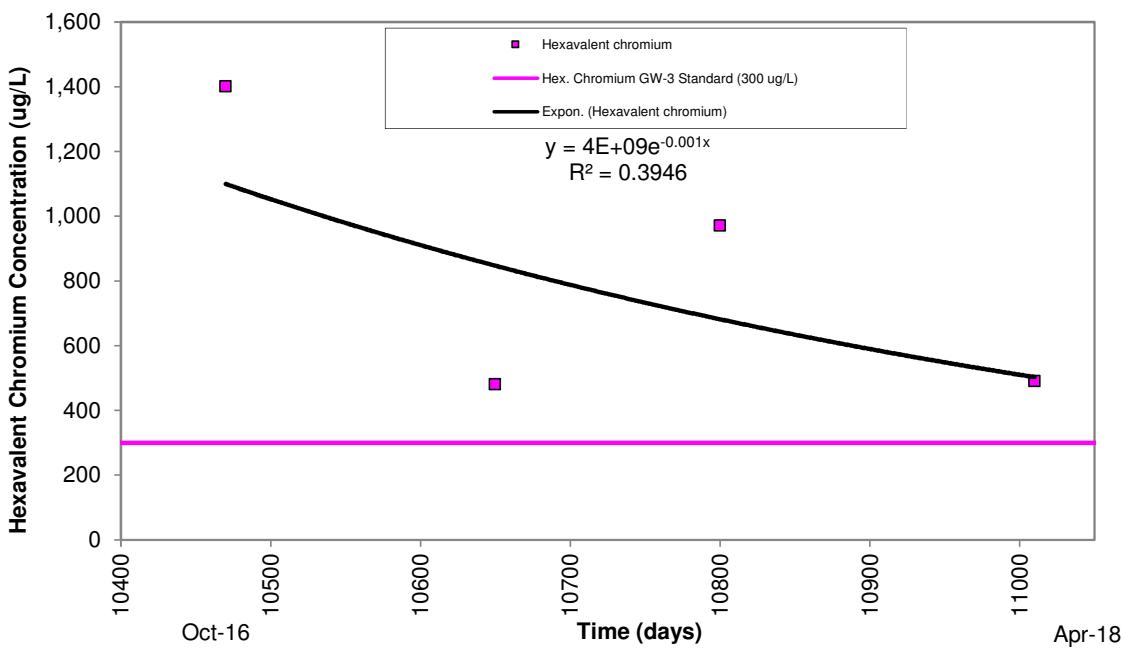
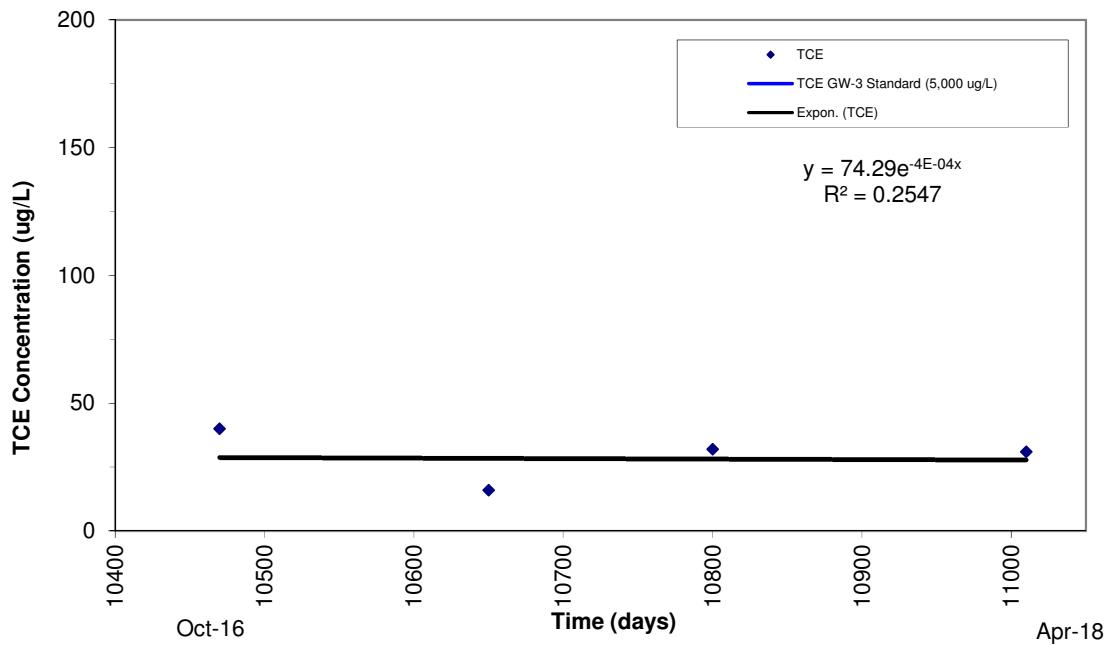
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
ON-PROPERTY MONITORING WELL CLW-5B
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

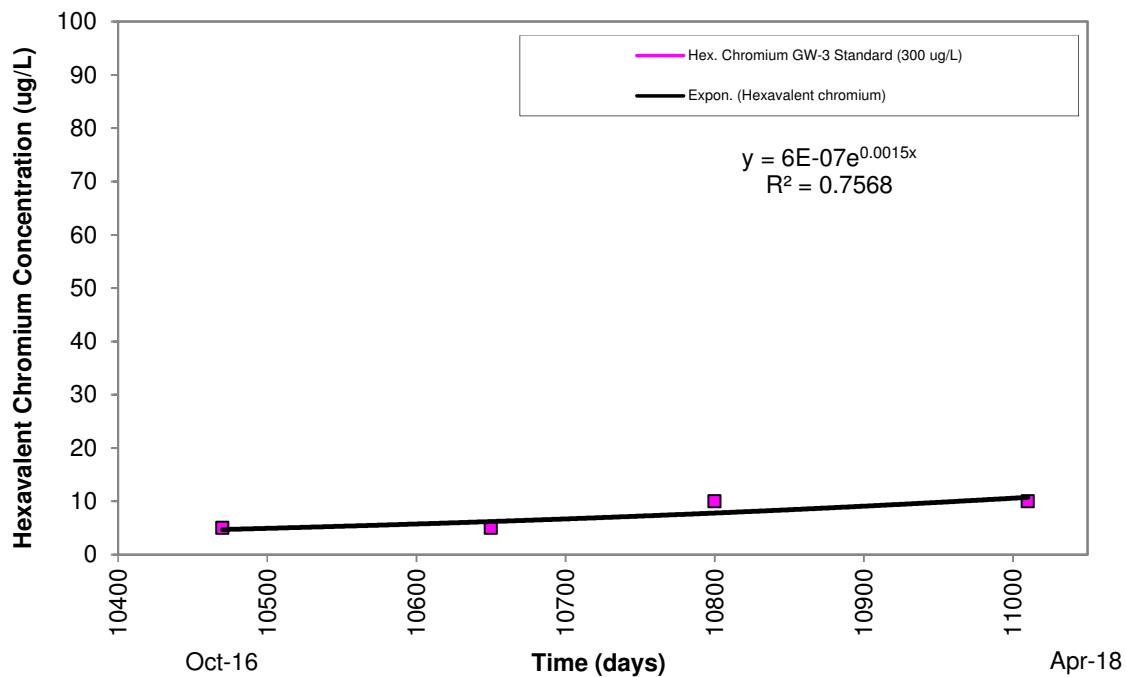
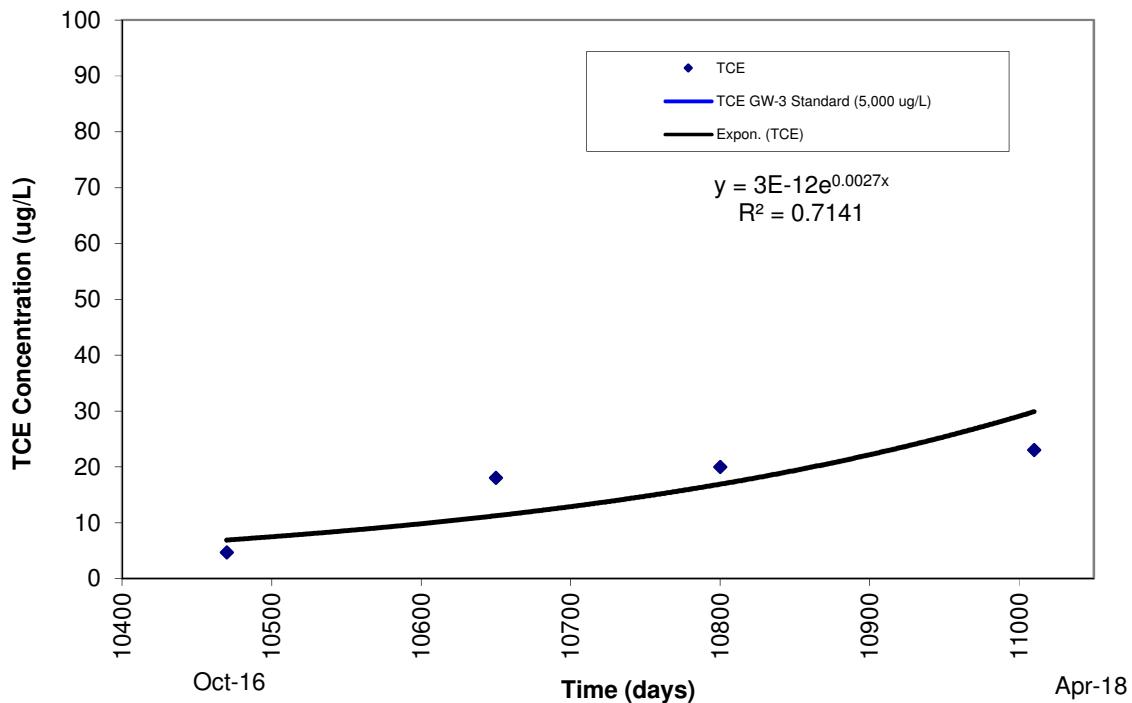
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
ON-PROPERTY MONITORING WELL CLW-8
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

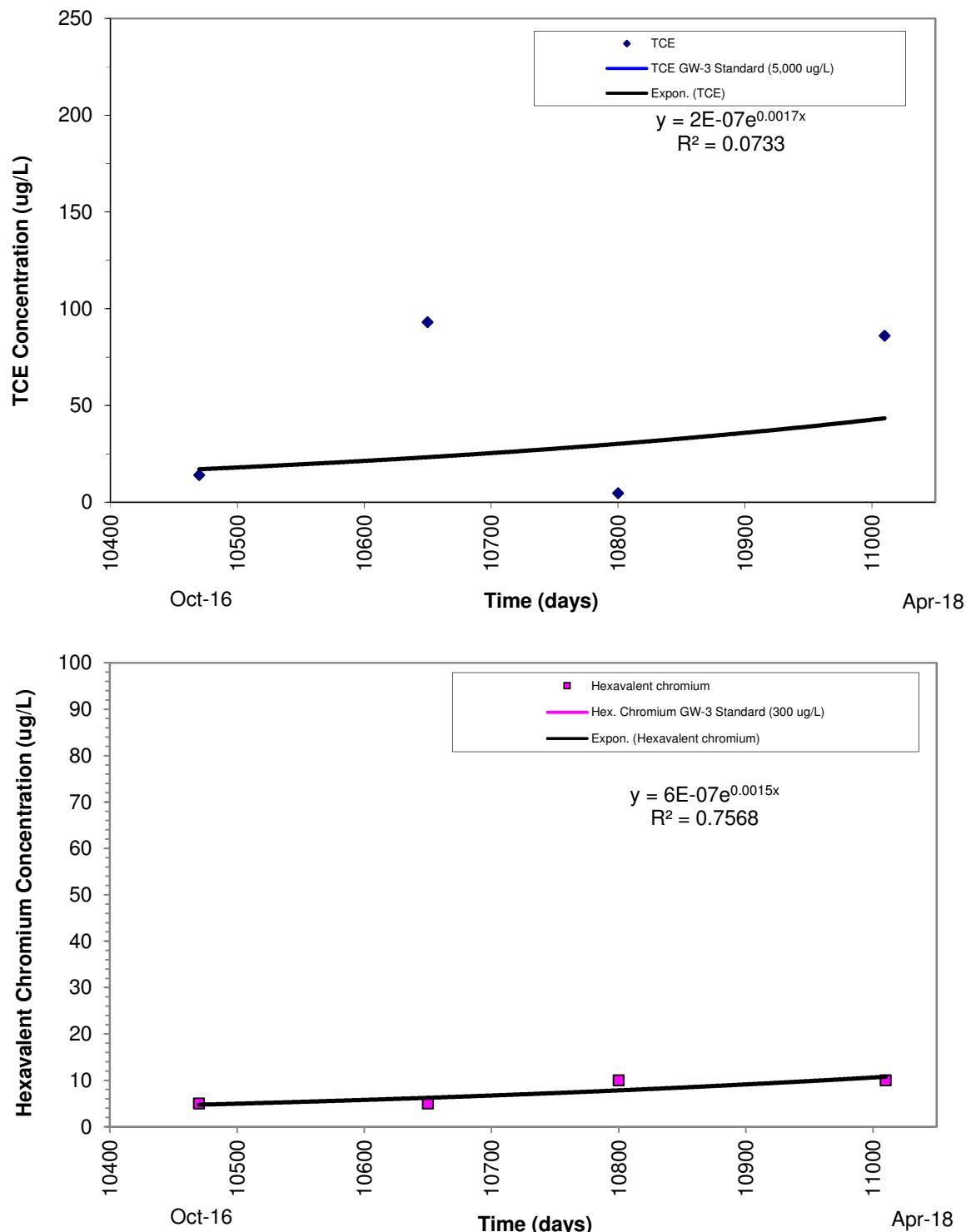
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
ON-PROPERTY MONITORING WELL DMW-A
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

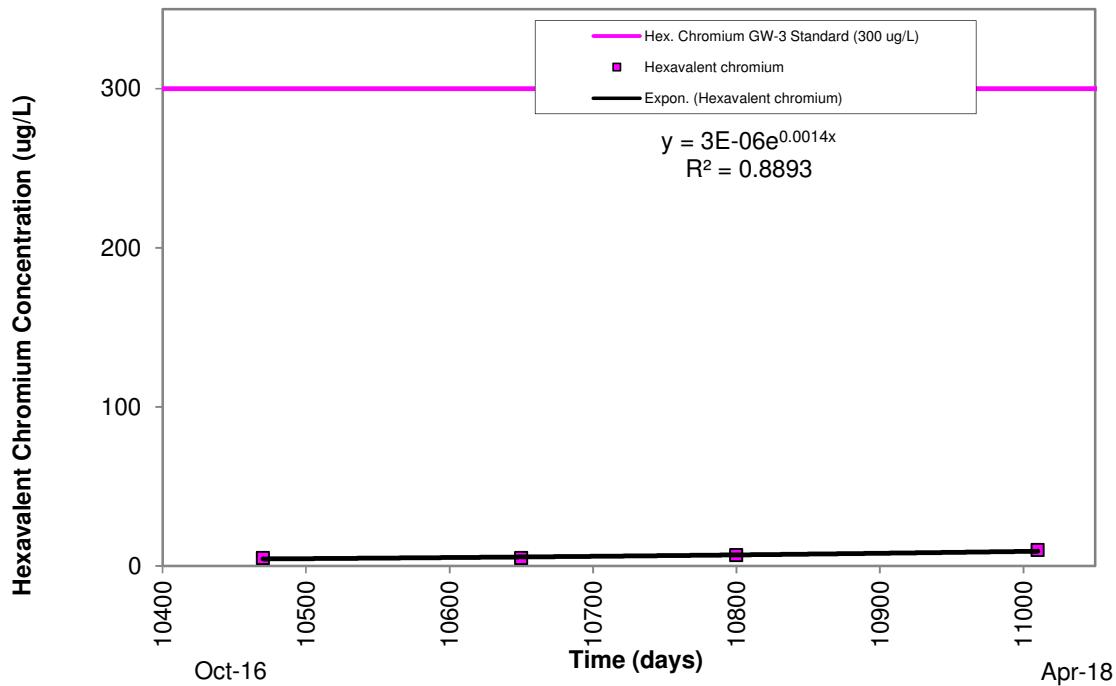
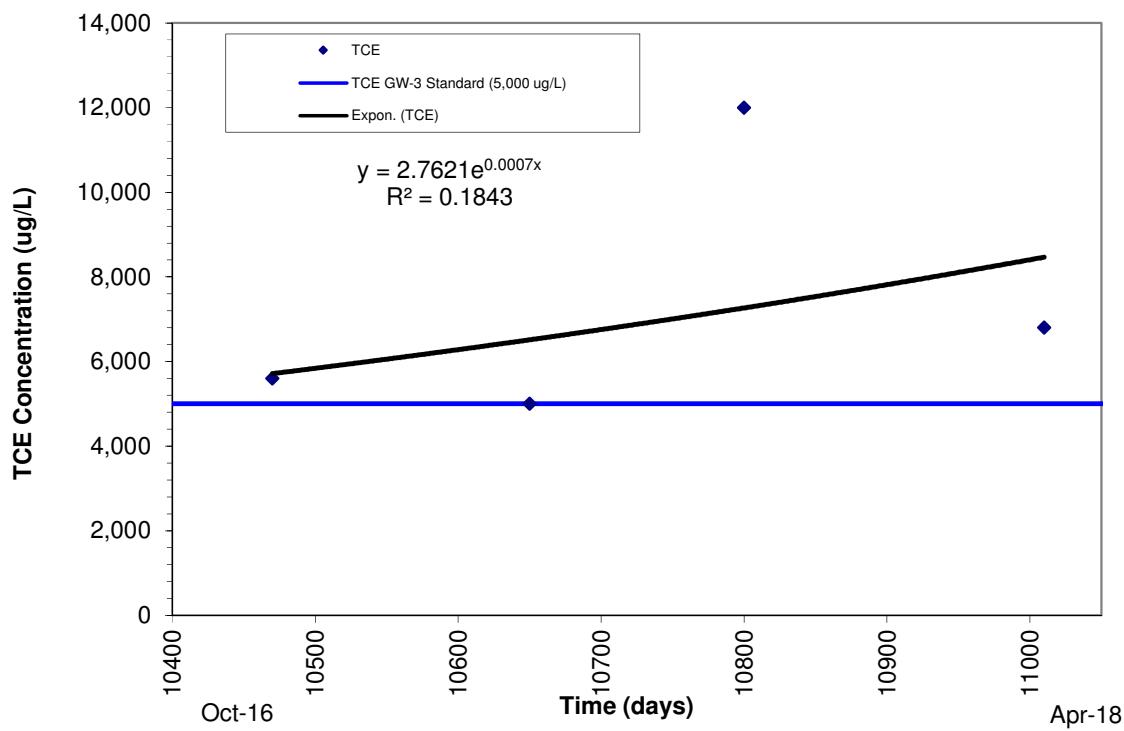
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
ON-PROPERTY MONITORING WELL DMW-B
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

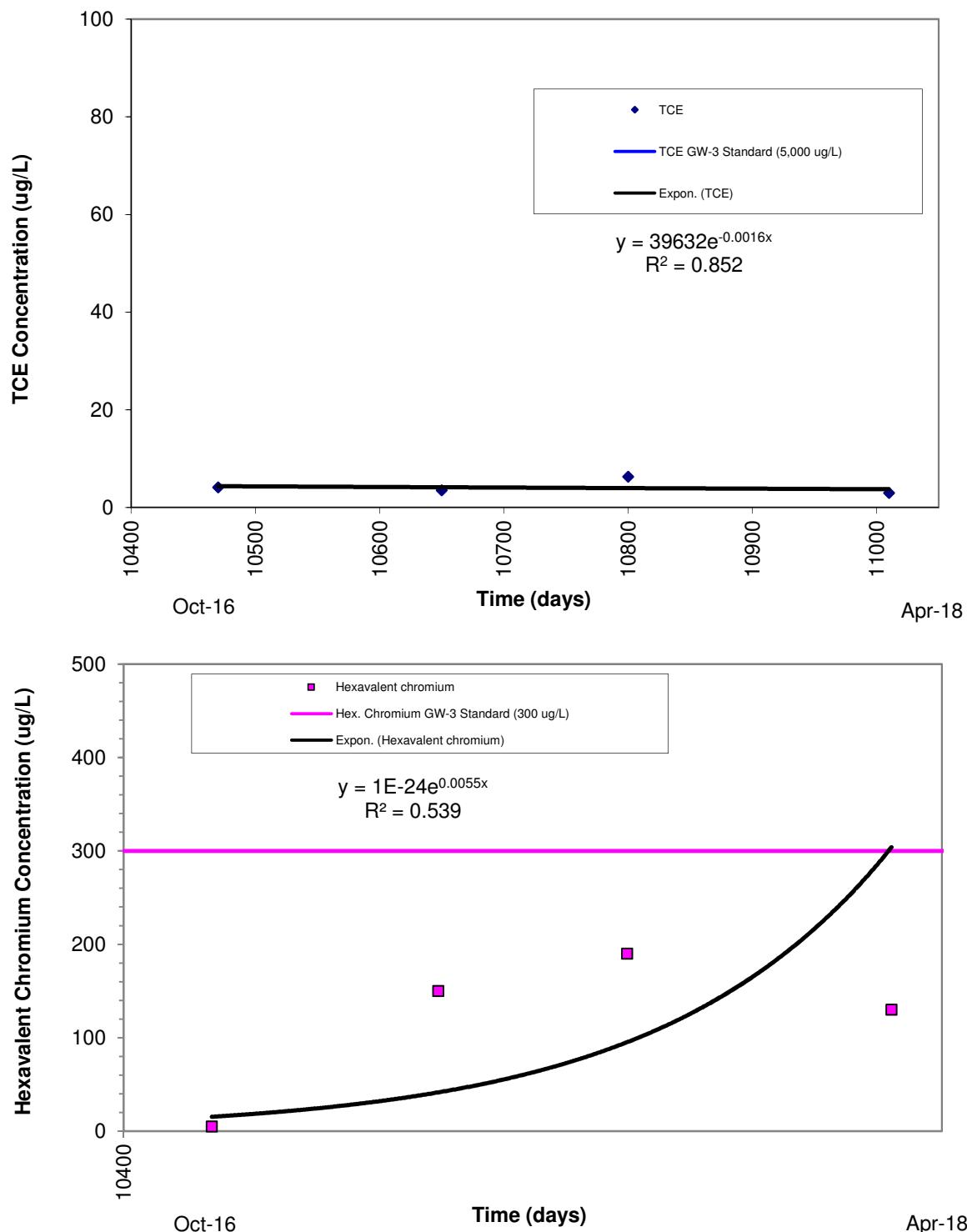
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
ON-PROPERTY MONITORING WELL CLW-16B
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

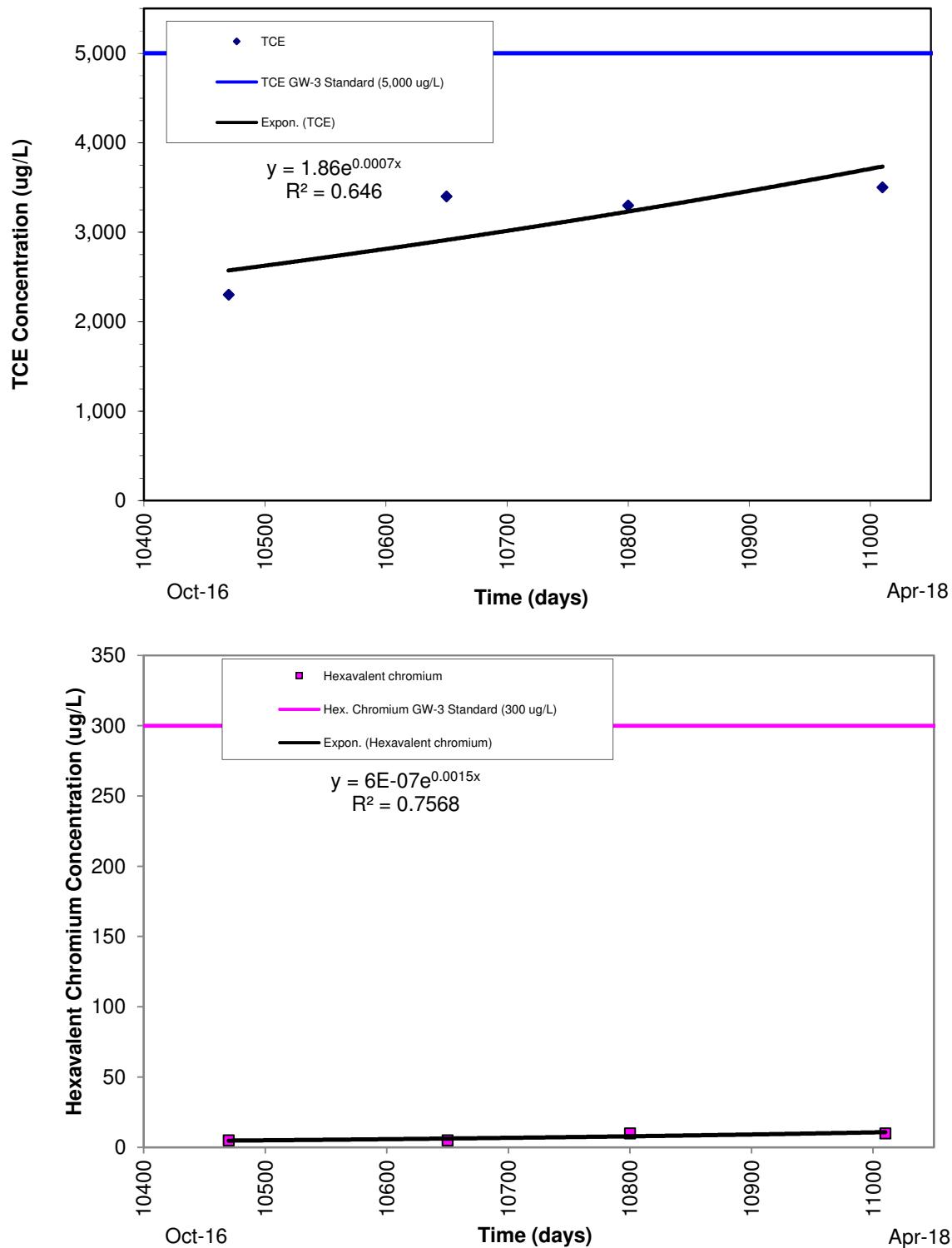
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
ON-PROPERTY MONITORING WELL OSW-1
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

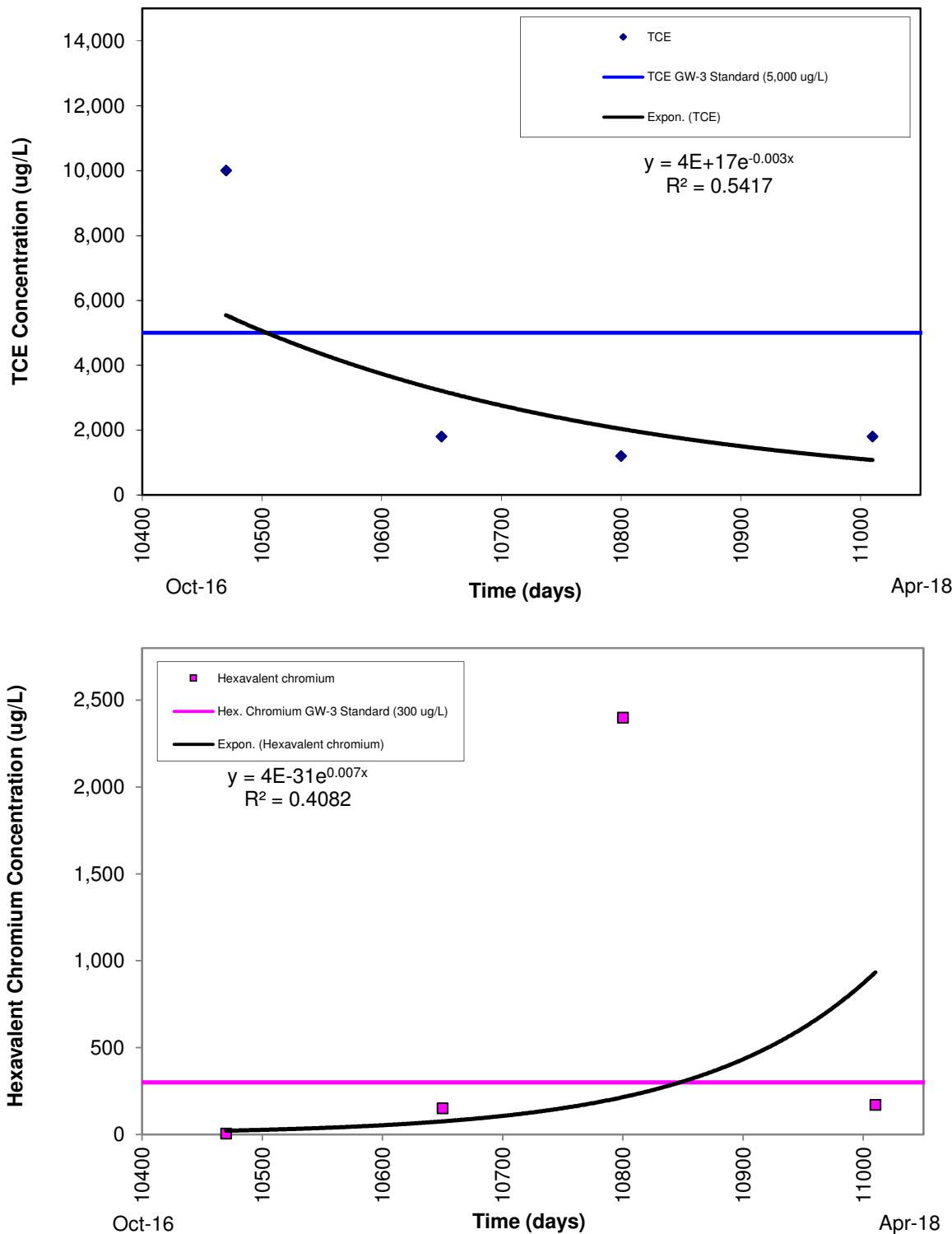
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
ON-PROPERTY MONITORING WELL OSW-1B
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

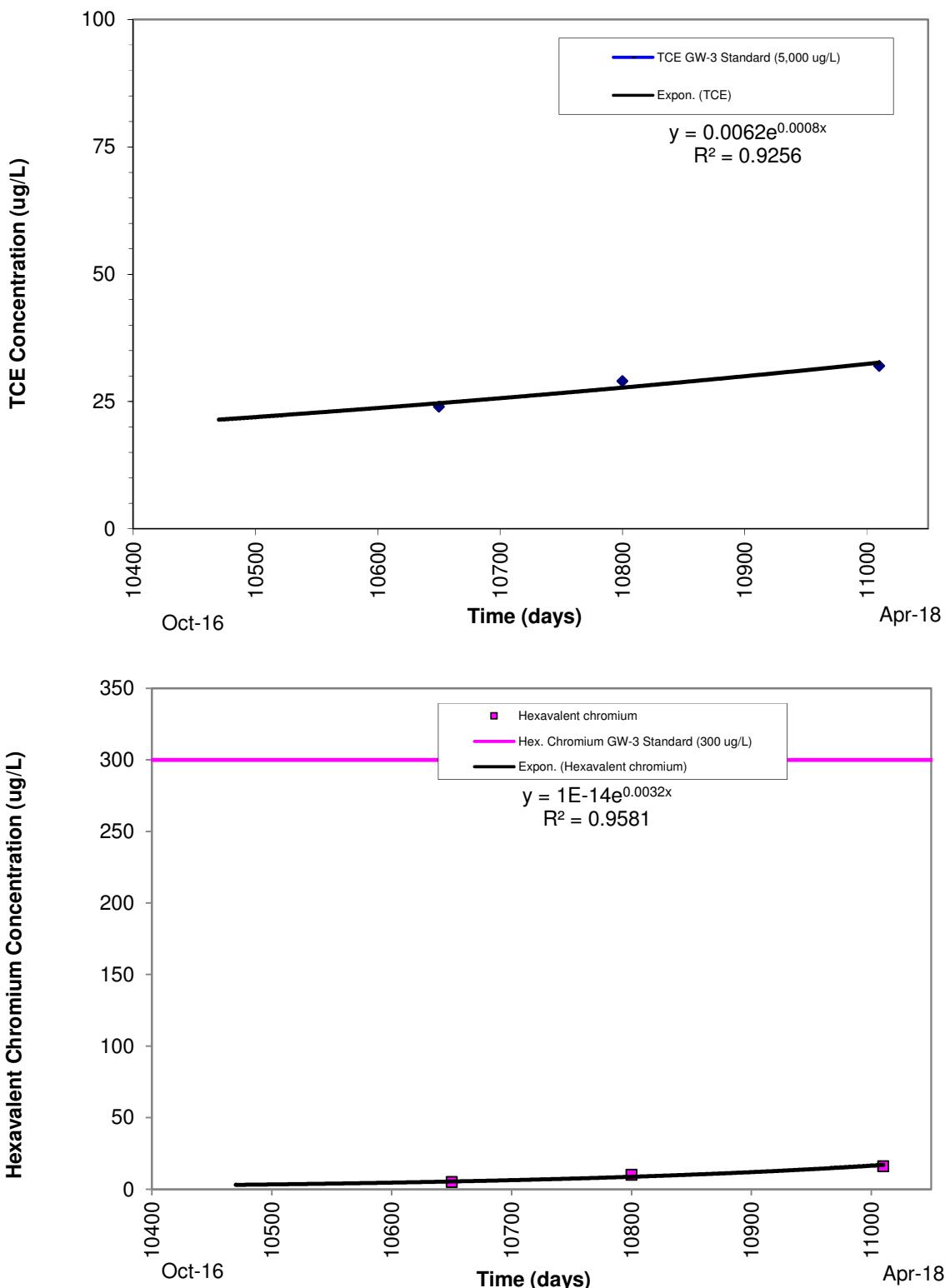
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
ON-PROPERTY MONITORING WELL OSW-2B
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

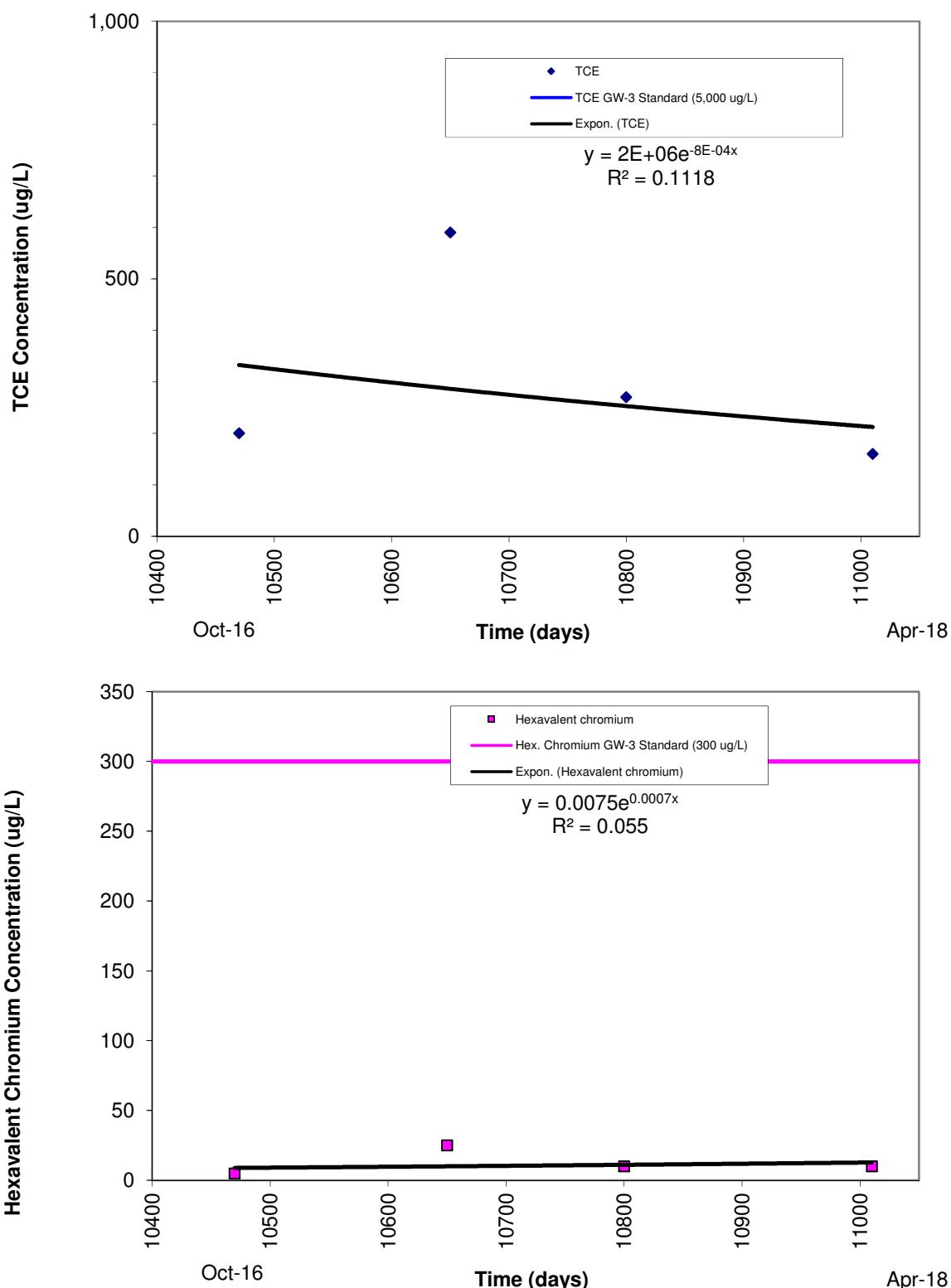
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
ON-PROPERTY MONITORING WELL OSW-3
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

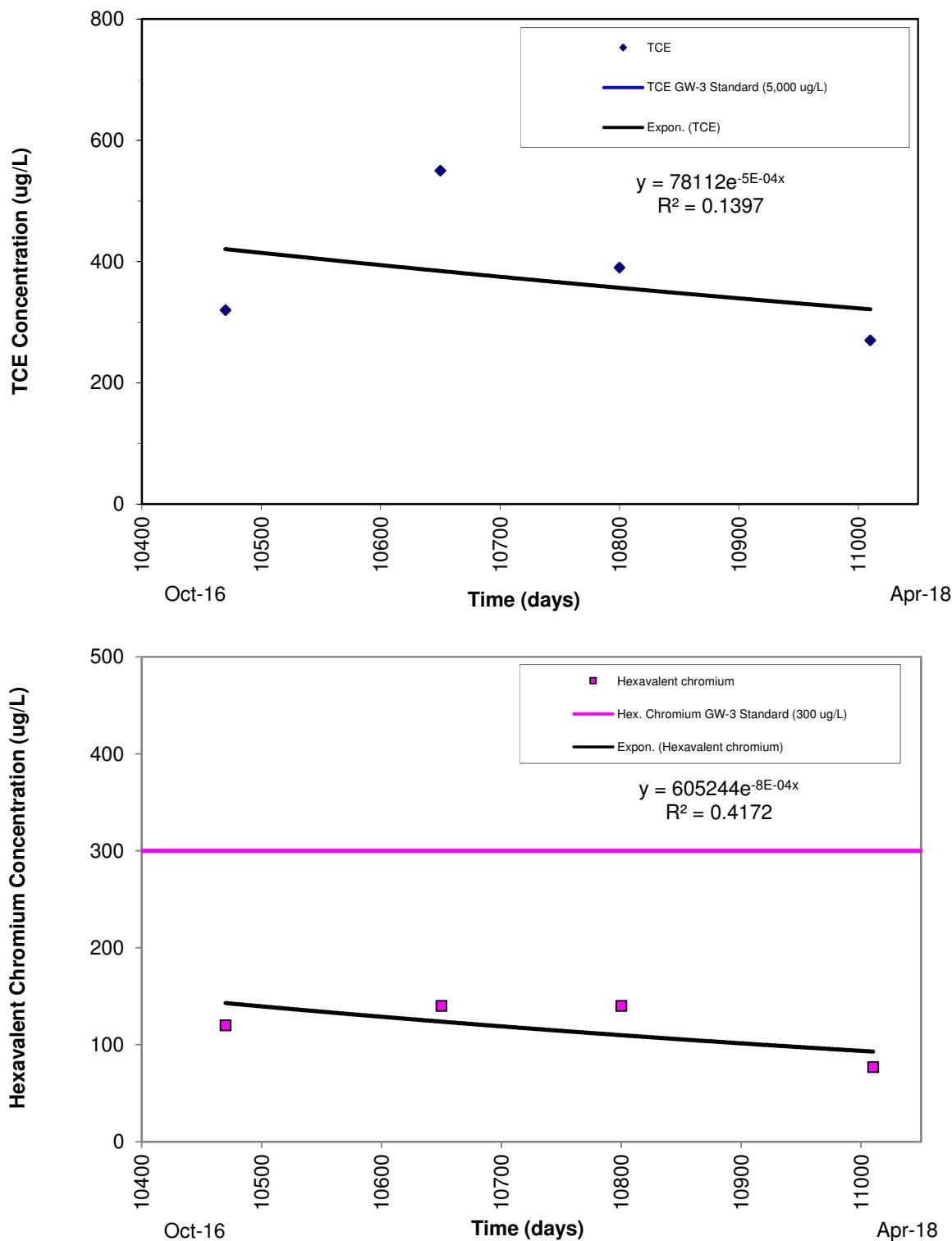
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
ON-PROPERTY MONITORING WELL OSW-3B
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

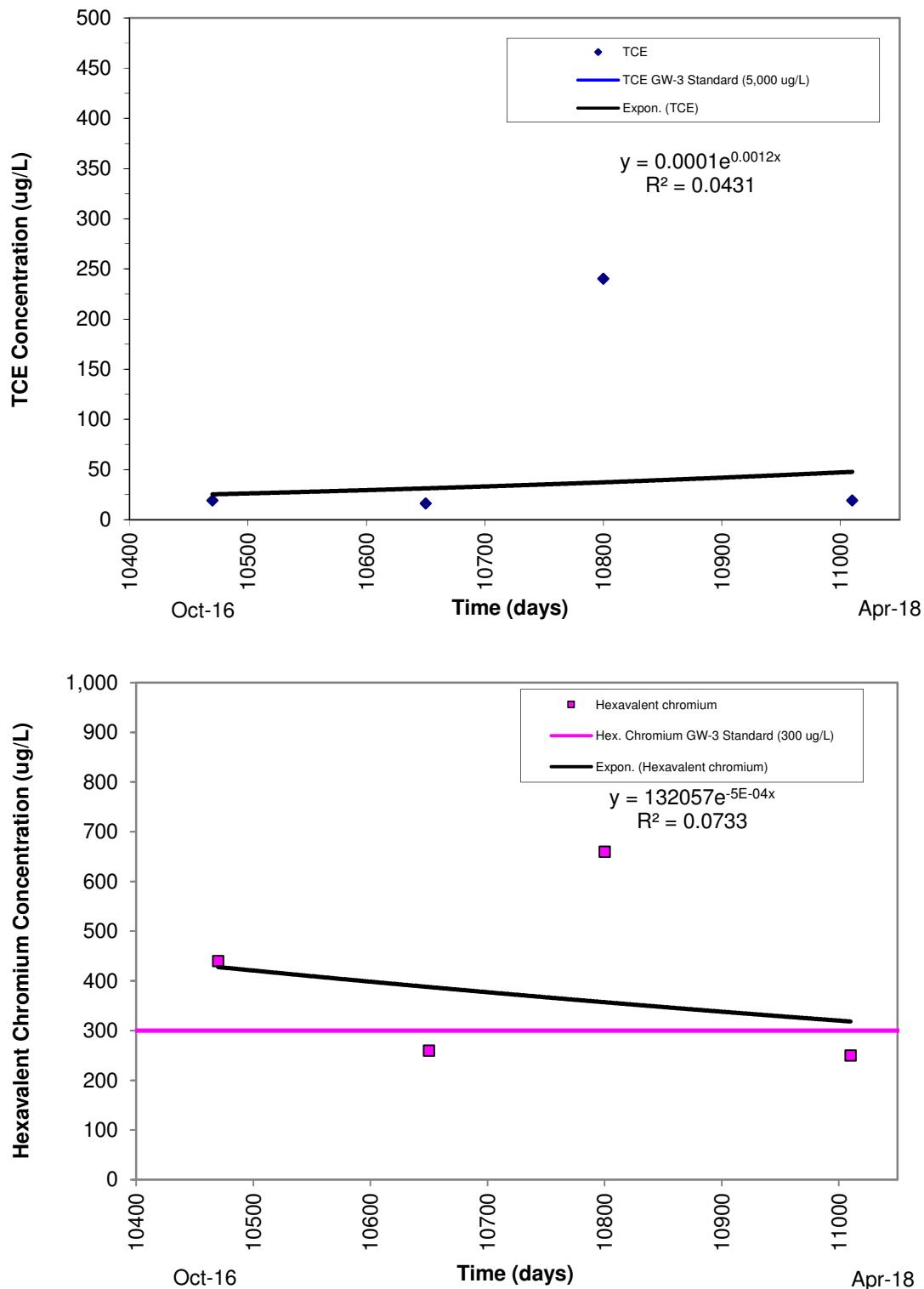
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
ON-PROPERTY MONITORING WELL OSW-4I
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

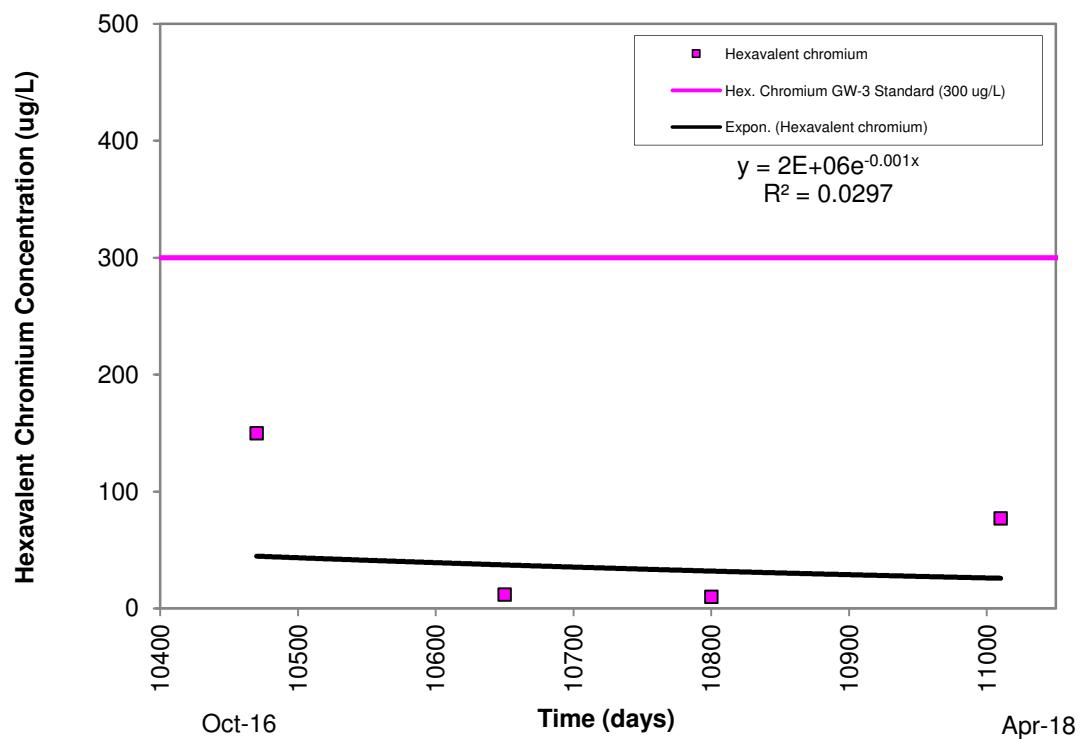
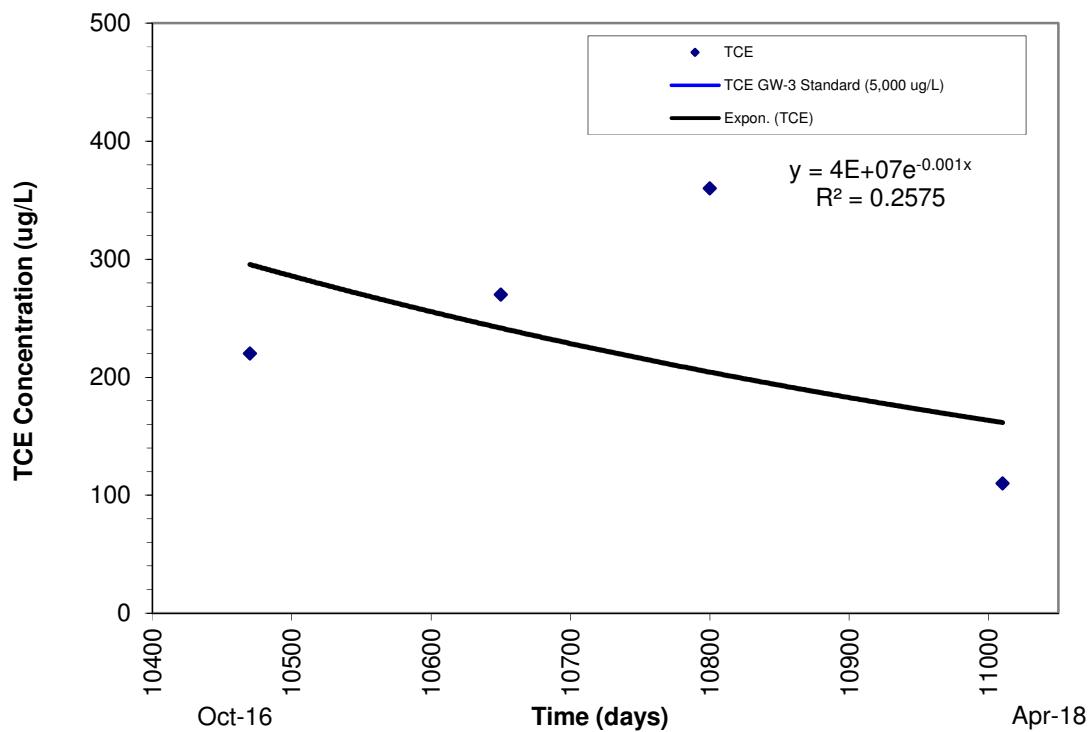
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
ON-PROPERTY MONITORING WELL OSW-7
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

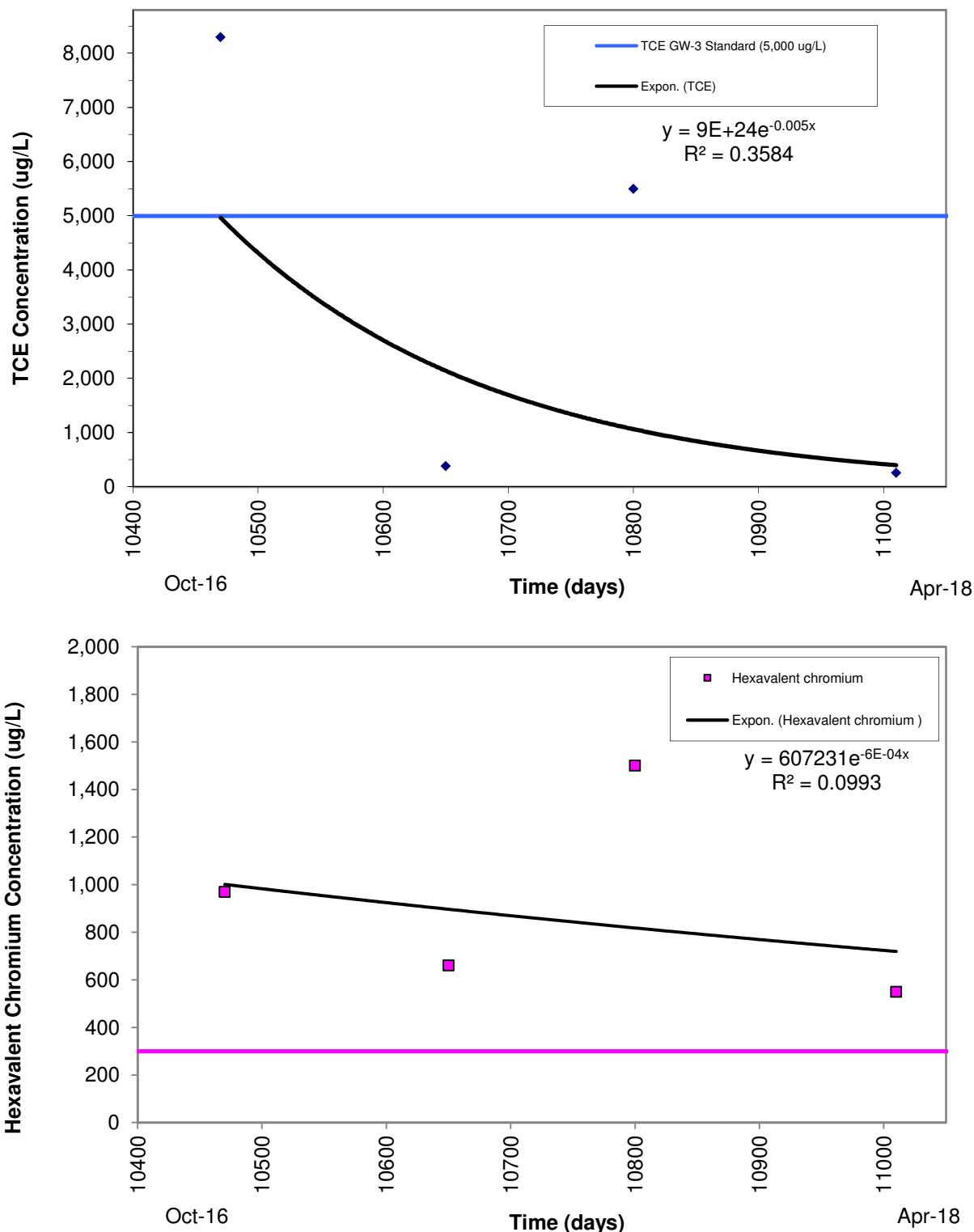
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
ON-PROPERTY MONITORING WELL PP-2
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 $\mu\text{g/L}$; Hexavalent chromium GW-3 = 300 $\mu\text{g/L}$.

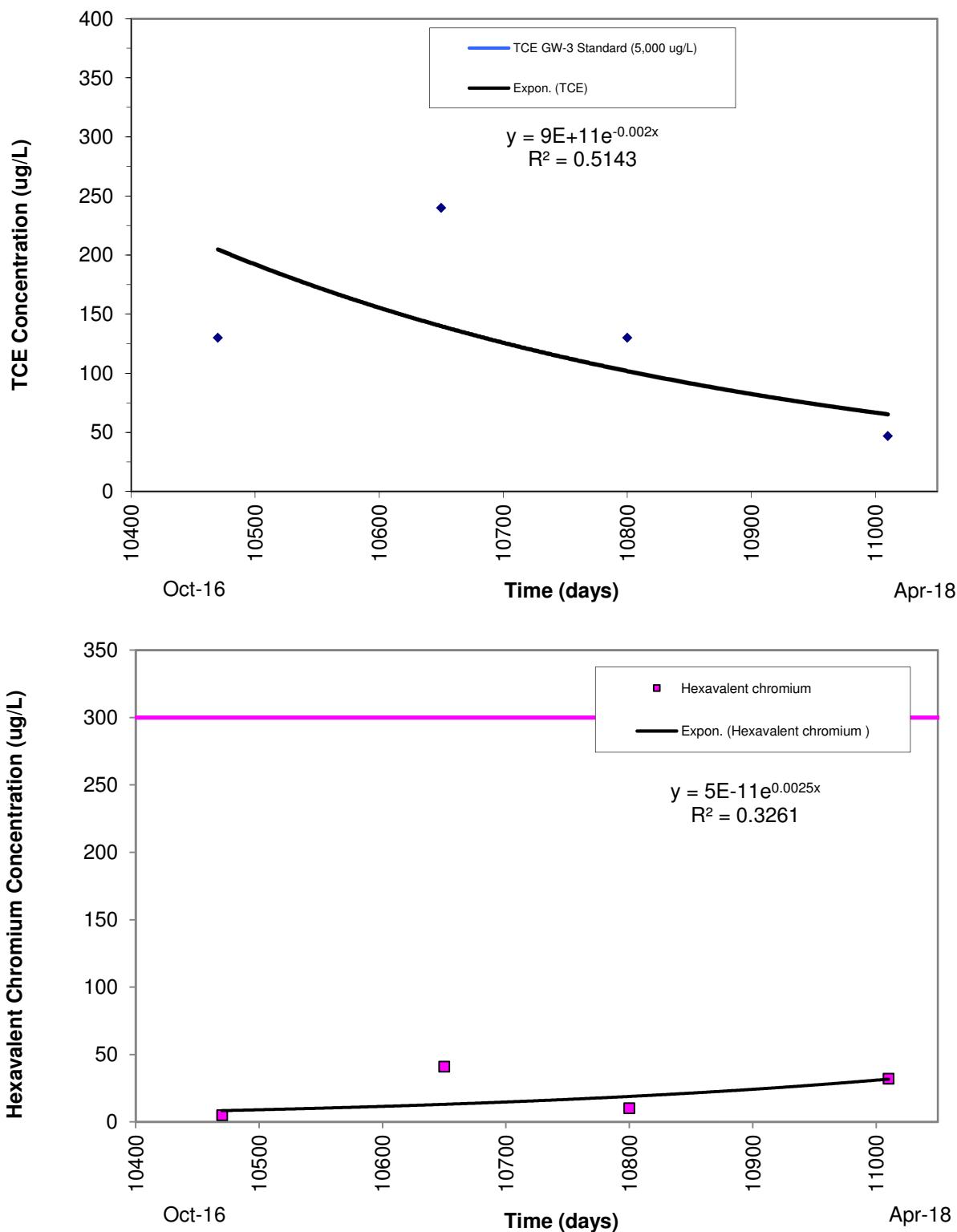
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
OFF-PROPERTY MONITORING WELL PP-3
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

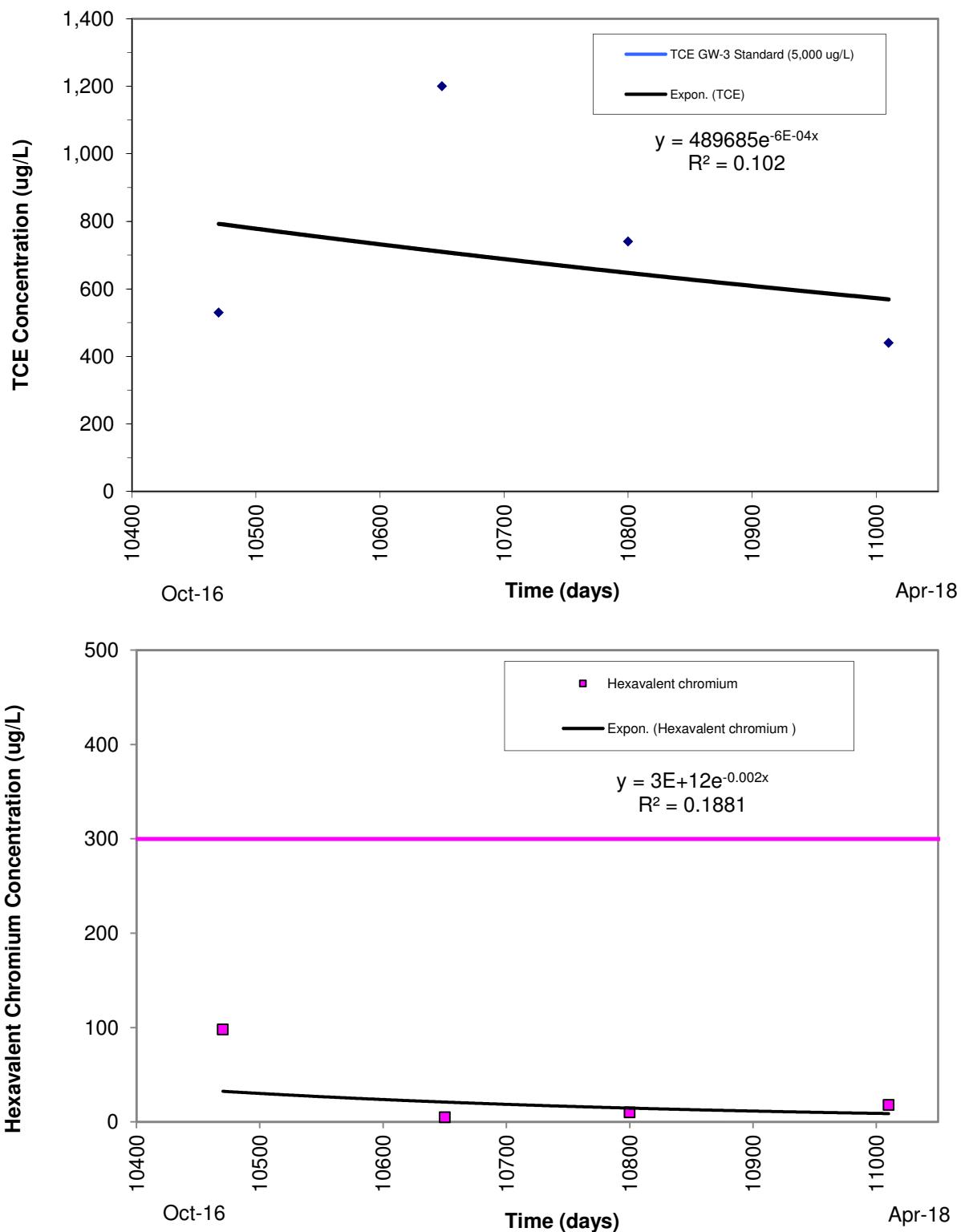
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
OFF-PROPERTY MONITORING WELL PP-4A
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

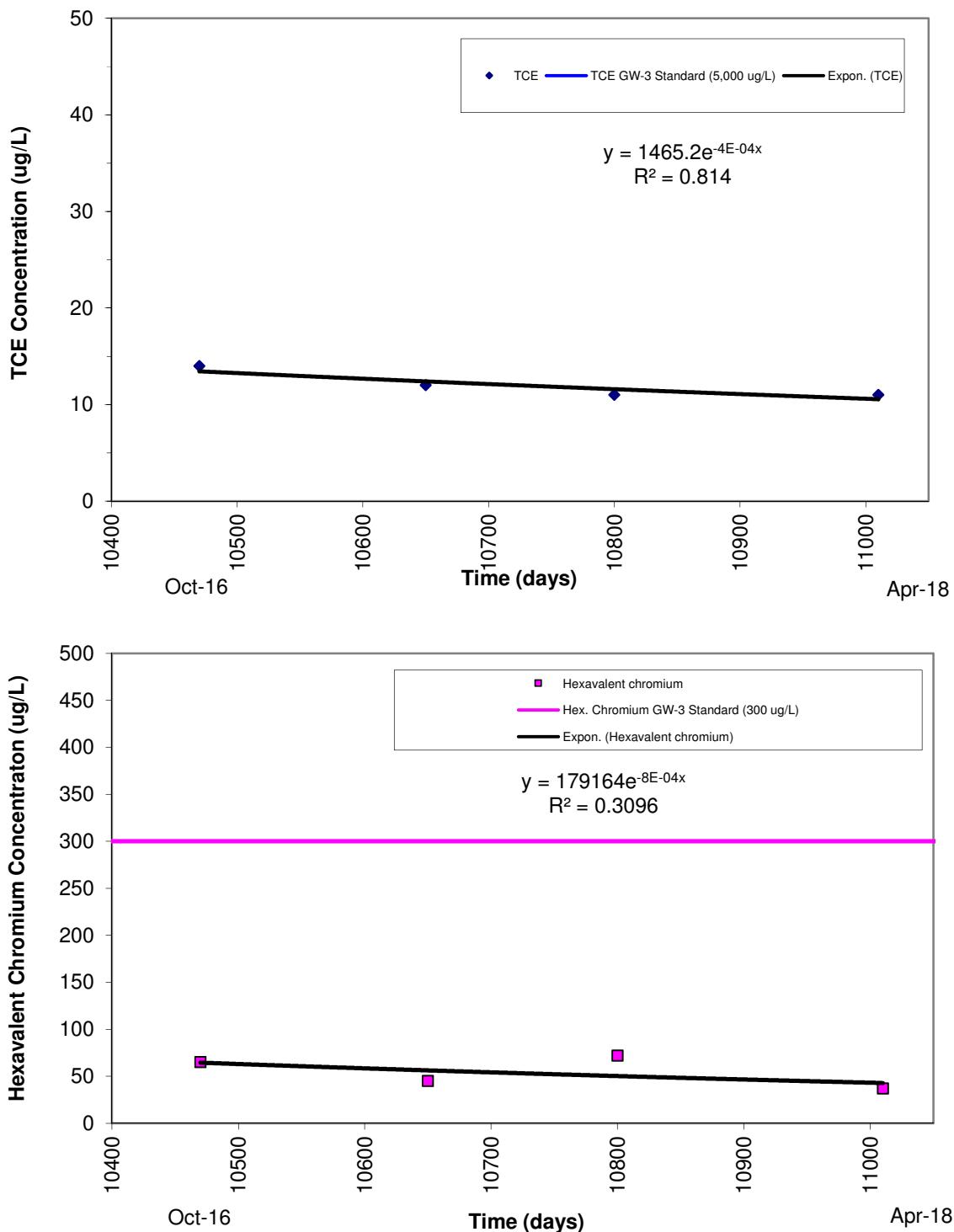
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
OFF-PROPERTY MONITORING WELL PP-4B
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

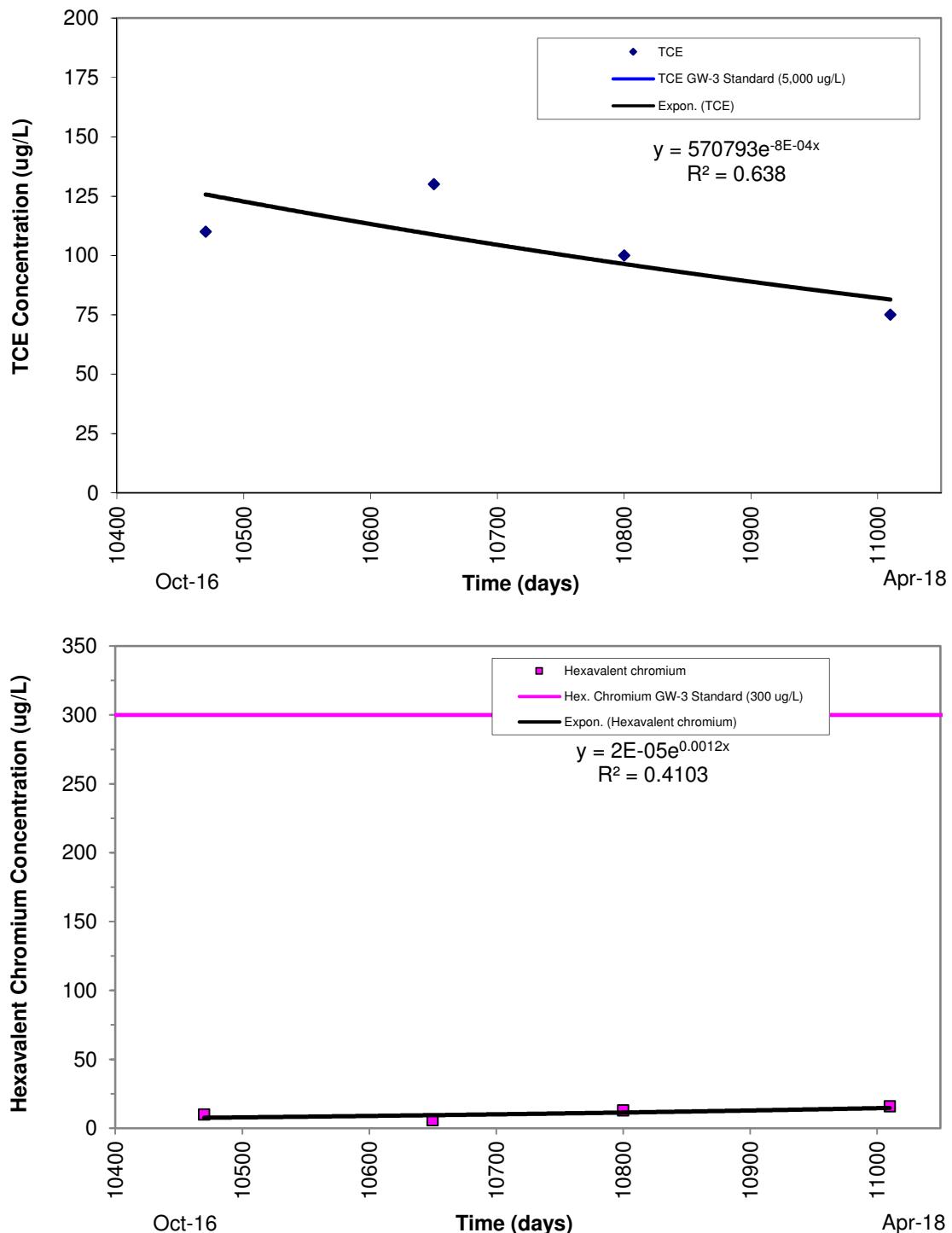
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
OFF-PROPERTY MONITORING WELL CLW-17
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

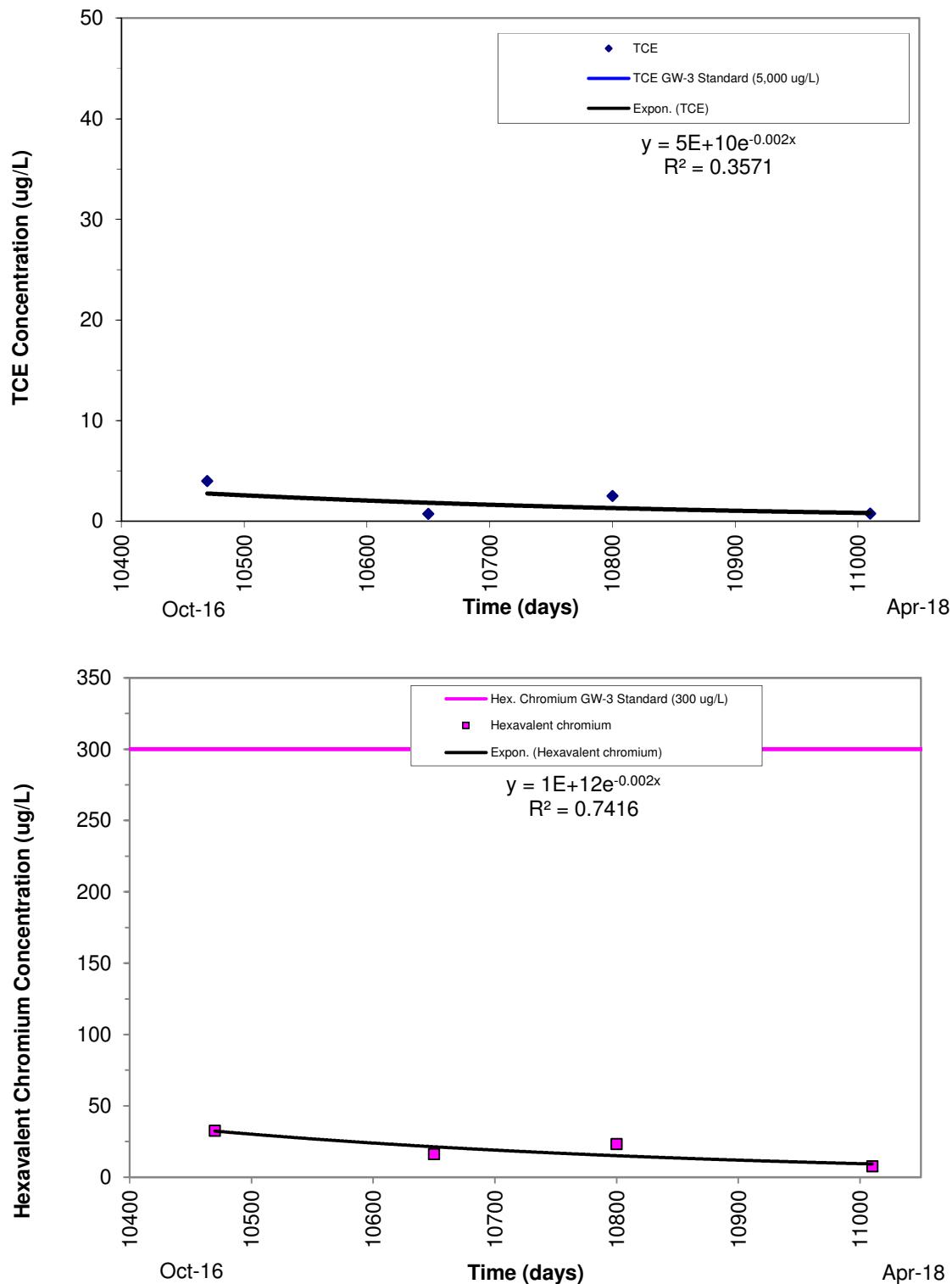
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
OFF-PROPERTY MONITORING WELL CLW-17B
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

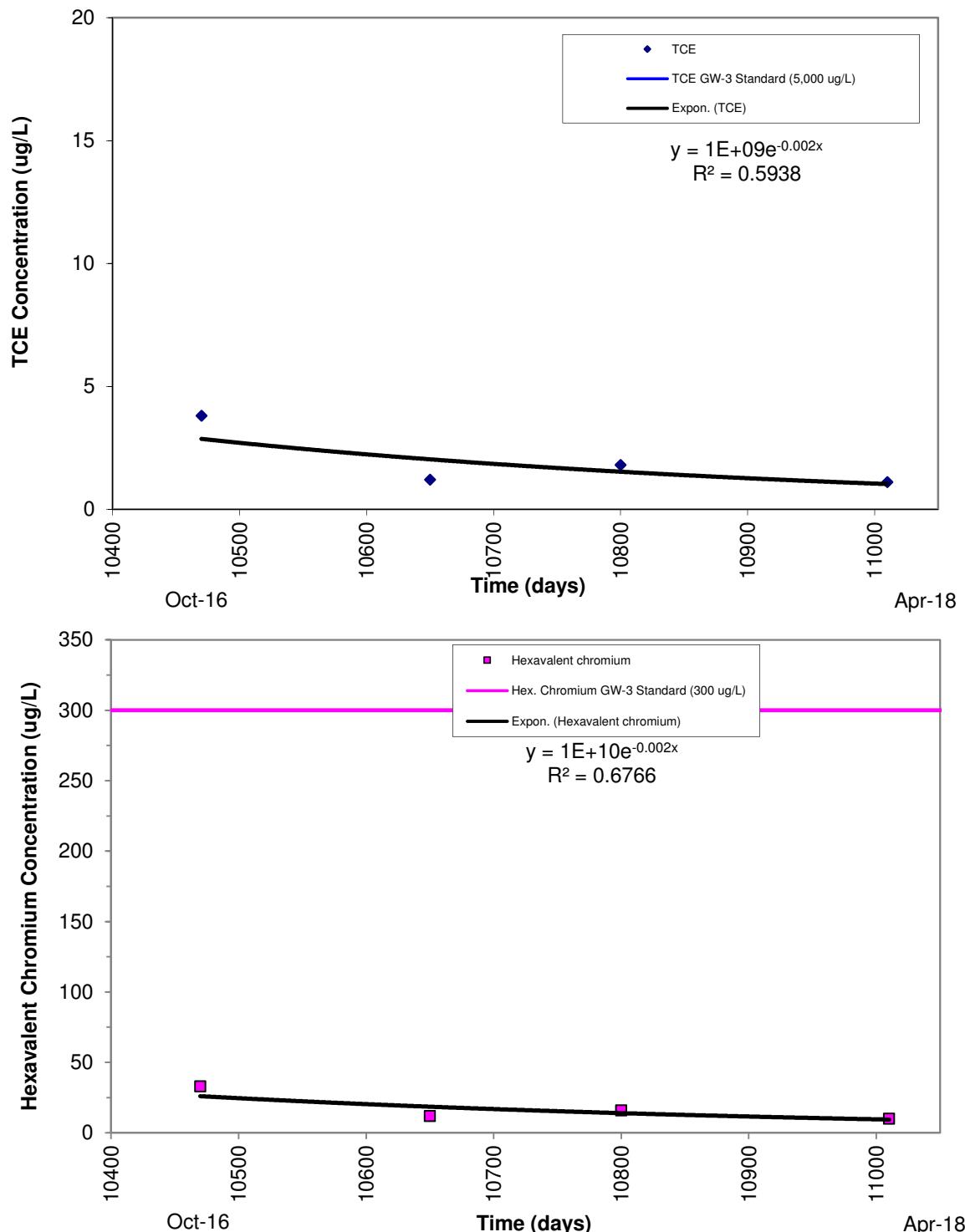
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
OFF-PROPERTY MONITORING WELL CLW-19
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

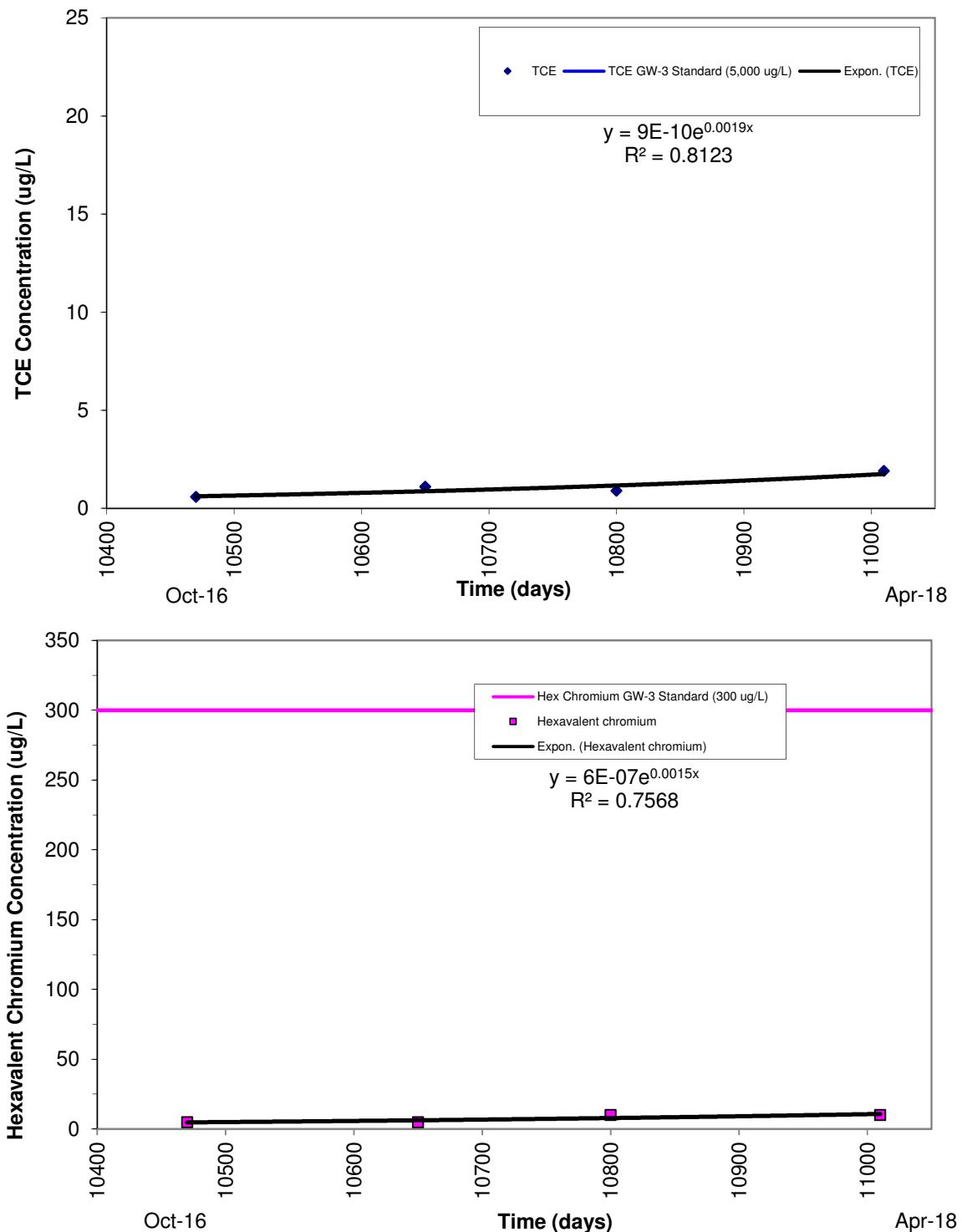
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
OFF-PROPERTY MONITORING WELL CLW-19B
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

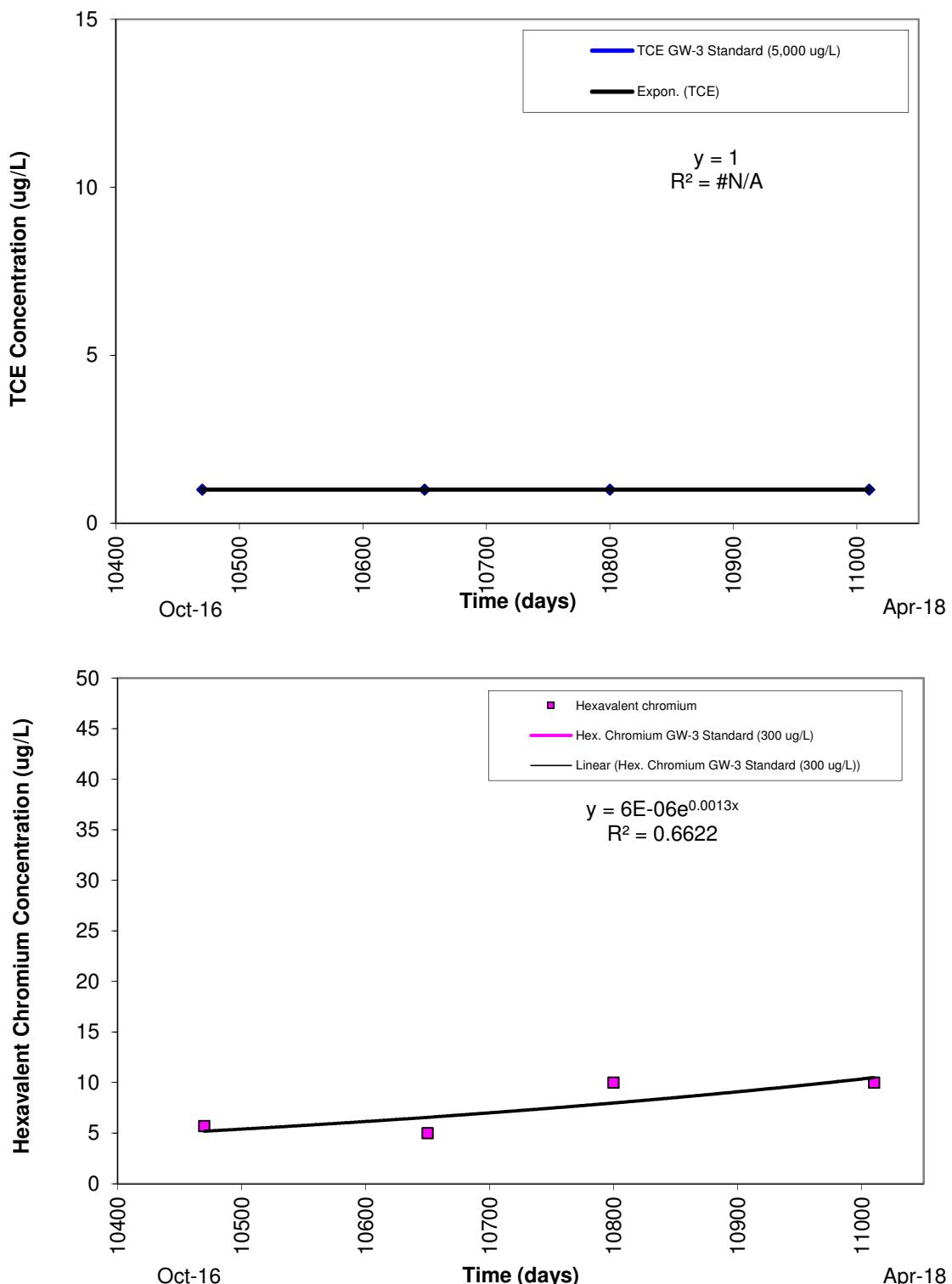
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
OFF-PROPERTY MONITORING WELL CLW-20
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

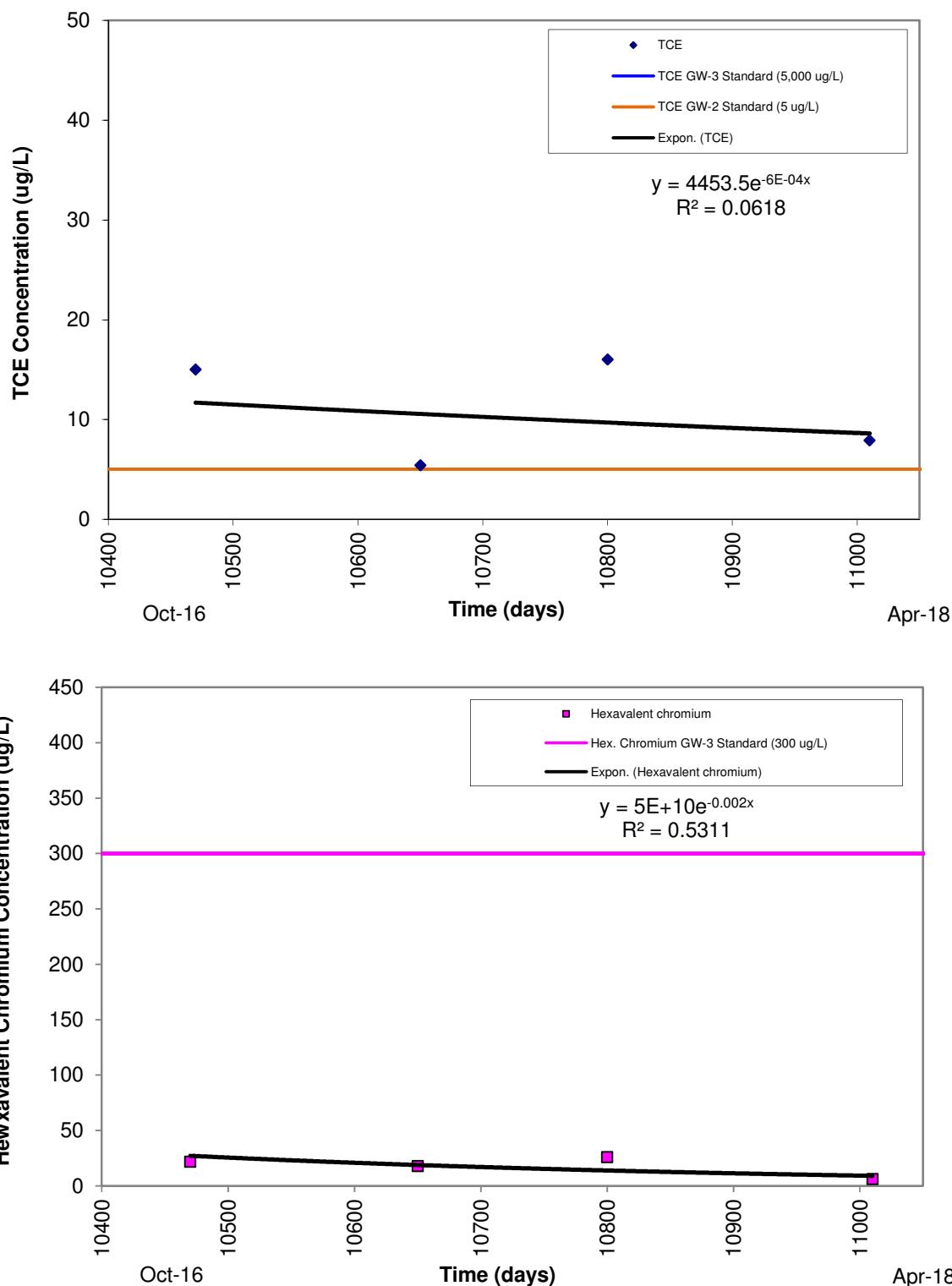
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
OFF-PROPERTY MONITORING WELL CLW-20B
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

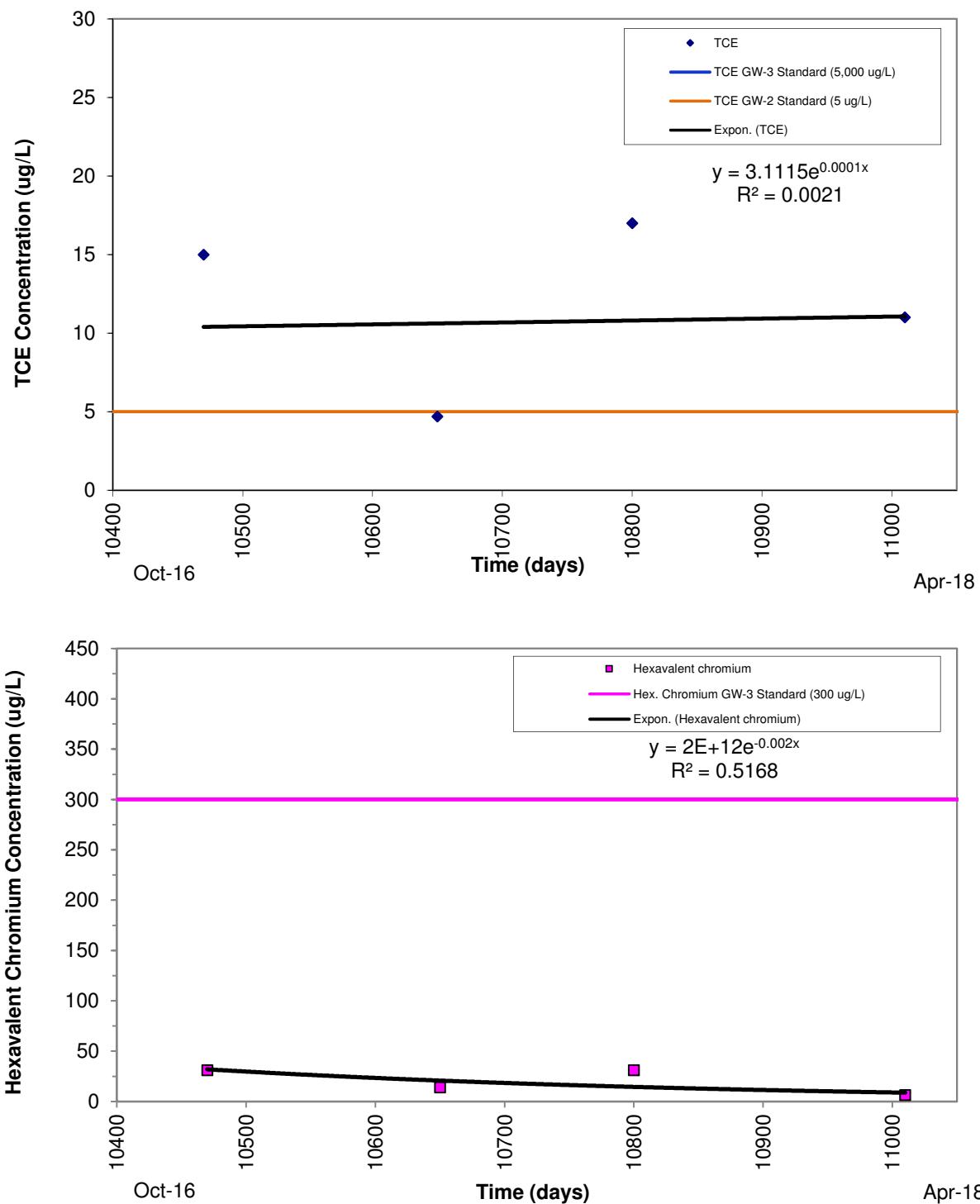
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
OFF-PROPERTY MONITORING WELL CLW-22
Conductorlab - Groton, Massachusetts



Notes:

Groundwater standards: TCE GW-2 = 5 ug/L; GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

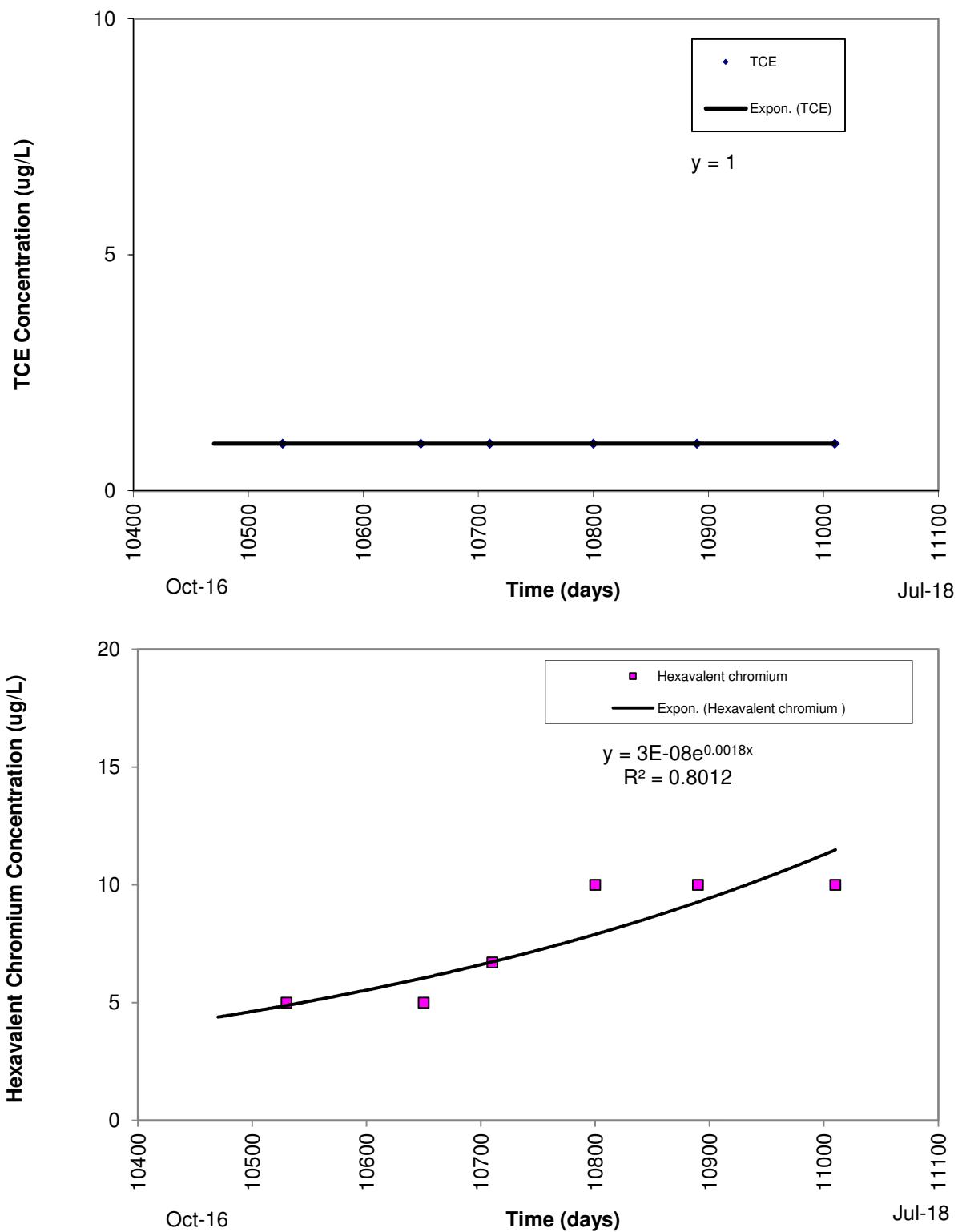
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
OFF-PROPERTY MONITORING WELL CLW-22B
Conductorlab - Groton, Massachusetts



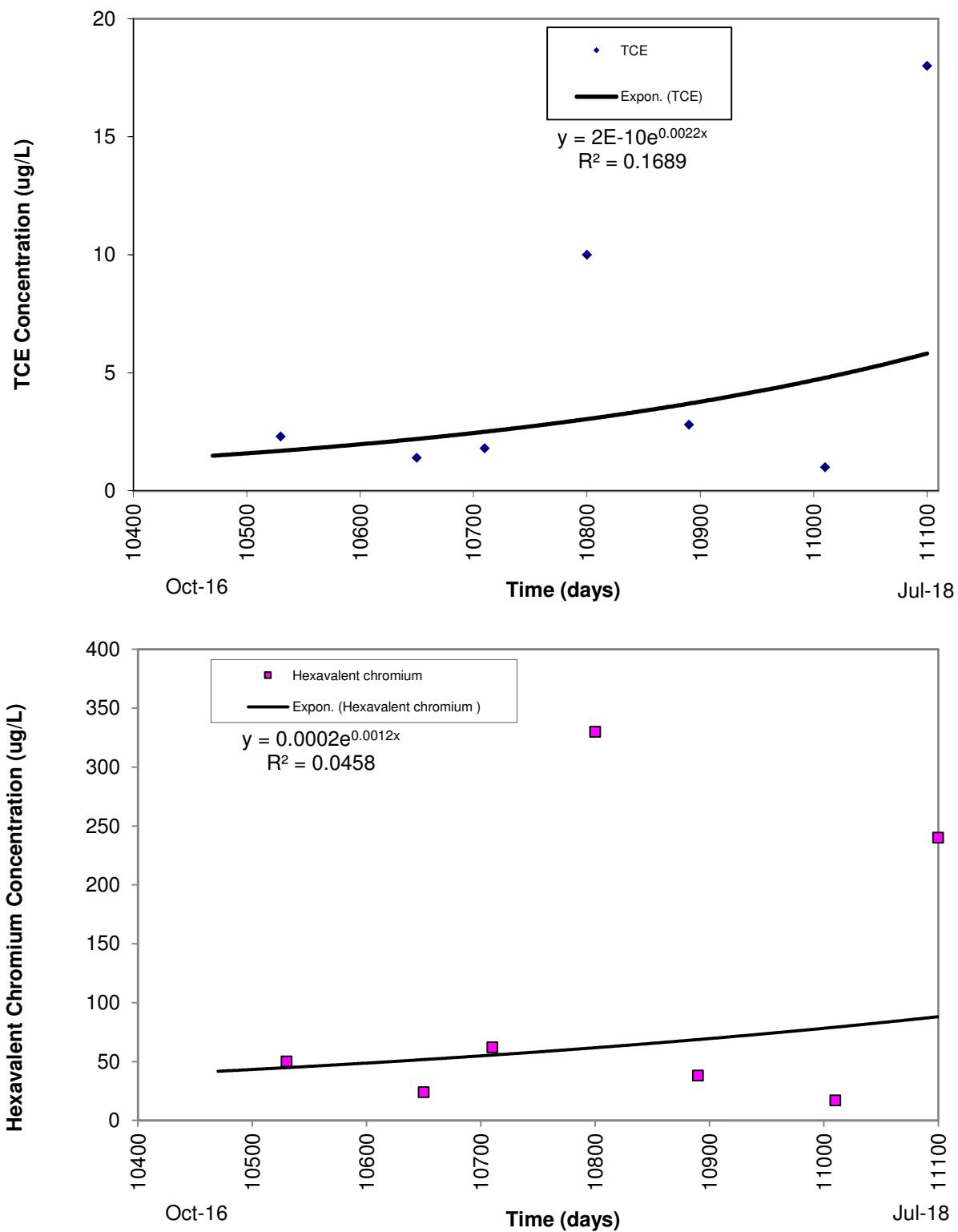
Notes:

Groundwater standards: TCE GW-2 = 5 ug/L; GW-3 = 5,000 ug/L; Hexavalent chromium GW-3 = 300 ug/L.

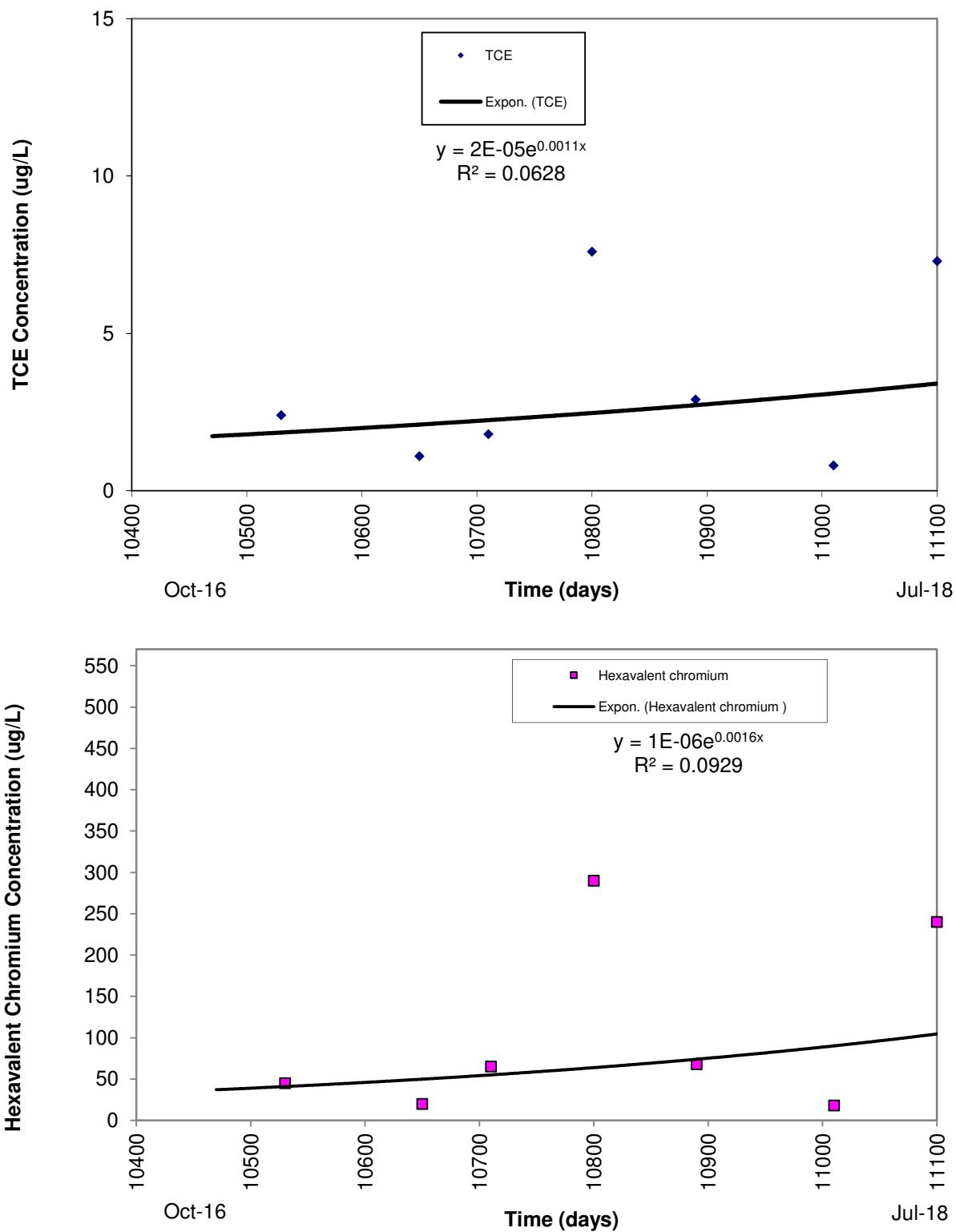
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
OFF-PROPERTY SURFACE WATER SAMPLE CSW-2
Conductorlab - Groton, Massachusetts



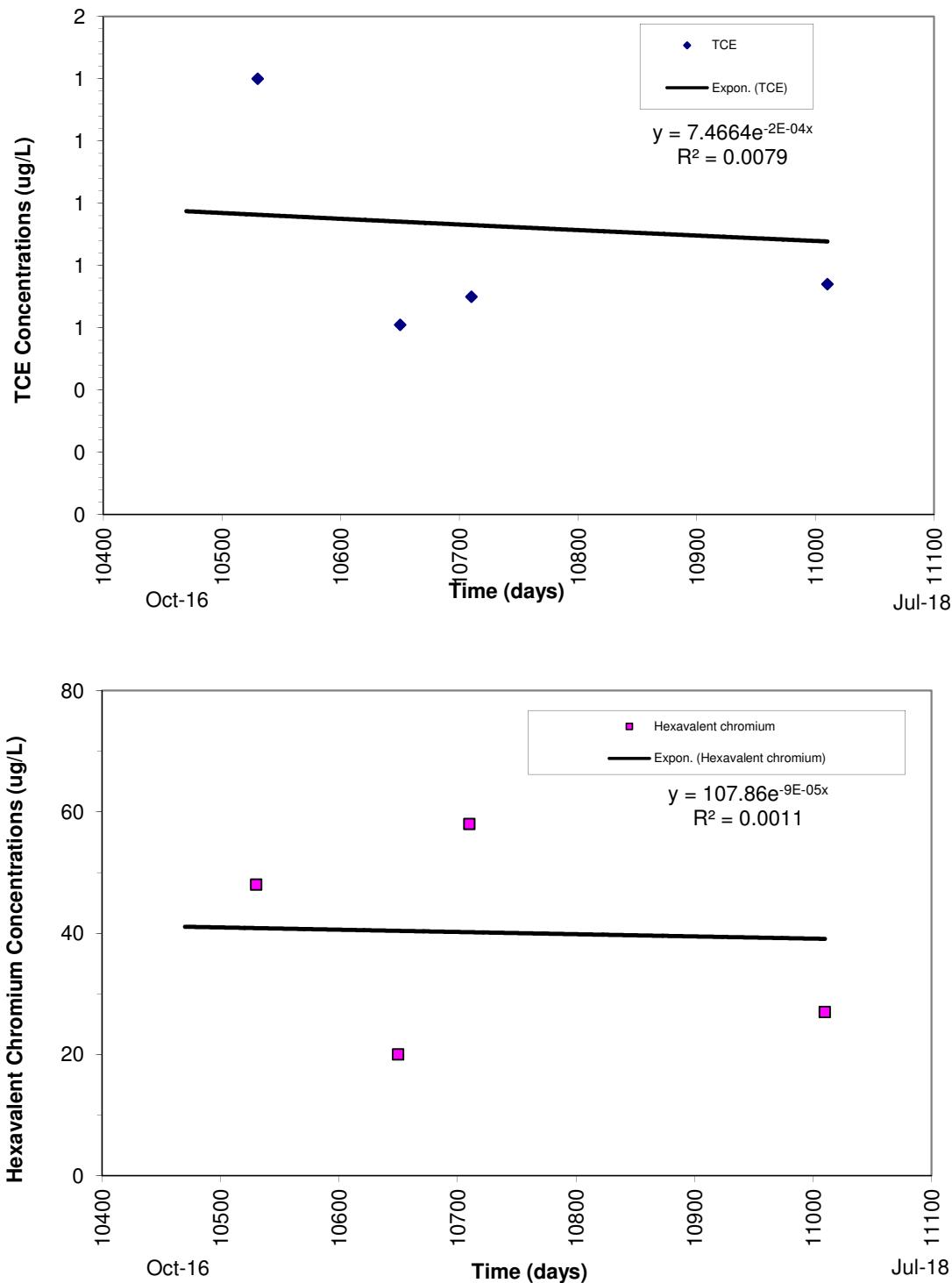
TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
OFF-PROPERTY SURFACE WATER SAMPLE CSW-3
Conductorlab - Groton, Massachusetts



TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
OFF-PROPERTY SURFACE WATER SAMPLE CSW-3A
Conductorlab - Groton, Massachusetts



TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
OFF-PROPERTY SURFACE WATER SAMPLE CSW-4
Conductorlab - Groton, Massachusetts



TCE and Hexavalent Chromium Groundwater Concentrations vs. Time
OFF-PROPERTY SURFACE WATER SAMPLE CSW-5
Conductorlab - Groton, Massachusetts

