MACTEC

engineering and constructing a better tomorrow

December 16, 2016

Mr. David Szymanski
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue
Buffalo, New York 14203-2999

Subject: **2016 Periodic Review Report**
Buffalo Outer Harbor-Radio Tower Area
NYSDEC Site No. 915026

Dear Mr. Szymanski:

MACTEC Engineering and Consulting, P.C. (MACTEC) is submitting this Periodic Review Report (PRR) for the Buffalo Outer Harbor-Radio Tower Area (Site) on behalf of the Remedial Party, Honeywell International Inc. (Honeywell).

A completed Site Management PRR Notice - Institutional and Engineering Controls Certification Form is provided herein as Attachment A, which includes a summary of existing covenants and property use restrictions. Supporting Tables, Figures, and Appendices are included herein as Attachment B. The remainder of this document is consistent with the outline presented in New York State Department of Environmental Conservation's (NYSDEC's) 45-day notice letter dated December 2, 2016.

I. Introduction

A. Site Summary:

The Site is located on property owned by the Niagara Frontier Transportation Authority (NFTA). The Site address is 901 Fuhrmann Boulevard in Buffalo, Erie County, New York 14205. The Site consists of a 0.9-acre area where land disposal and fill placement formerly occurred, and soils were found to be contaminated with nitrobenzene exceeding toxicity characteristic leaching procedure (TCLP) hazardous waste thresholds. The Site is located within a larger 6-acre area known as the Radio Tower Area (RTA). A Record of Decision (ROD) was issued by the NYSDEC for the RTA in March 1999; the ROD was modified by an Explanation of Significant Difference in 2003.

Remedial action completed at the Site consisted of in-situ chemical oxidation and stabilization, and in-place capping of the former disposal area. The Site remediation activities were documented in a Remedial Action Completion Report (August 17, 2005), which was approved by NYSDEC in a letter dated November 22, 2005. Institutional controls were also implemented via a Declaration of Covenants and Restrictions that was filed with Erie County in December 2005.

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The covenants and restrictions include land use restrictions and the requirement for annual inspection and maintenance of the capped area, as specified in Section 6.0 of the NYSDEC-approved Site Management Plan prepared for Honeywell by Remedial Engineering, P.C. (August 17, 2005). Six groundwater monitoring wells (GW-18R, GW-19, GW-20, GW-21, GW-22, and GW-23) are located adjacent to the capped area.

During the period of 2014 through 2016, the following routine OM&M activities were completed in accordance with the Work Plan for Inspection and Monitoring (referred to hereafter as the Work Plan), prepared by MACTEC (December 19, 2008), as approved, with amendment, by the NYSDEC as indicated in their letter dated July 10, 2009:

- Collection and laboratory testing of groundwater samples from Site wells once every three years (i.e., 2016); and
- Annual inspection and maintenance of the disposal area cap system.

B. Effectiveness Monitoring: The cap system is intact with suitable vegetative cover and no subsidence. Analytical results from the 2016 groundwater monitoring event indicate that nitrobenzene was not detected in groundwater. The reported concentrations for various metals in the 2016 groundwater samples exceeded the NY Class GA groundwater standards. The metals results were consistent with previous Outer Harbor data, as well as data presented in the ROD, which concluded that the concentrations of metals in groundwater may be attributable to "general groundwater quality in the vicinity of the Site".

C. Compliance: The OM&M activities conducted during the period 2014 through 2016 were performed in accordance with the Work Plan.

D. Recommendations: Implementation of the activities specified in the Work Plan will continue in 2017 through 2019, as described in Section VI of this letter.

II. Site Overview

A. Site Location: The property is located at 901 Fuhrmann Boulevard in an area known as Buffalo Outer Harbor on Lake Erie. The Site and surrounding property is currently owned by NFTA. The Outer Harbor property is occupied by the NFTA's port terminal facilities and a large paved parking area. The Site is specifically located near the northern edge of the NFTA terminal parking area and consists of a 0.9-acre capped/remediated former disposal area. There are six groundwater monitoring wells (GW-18R, GW-19, GW-20, GW-21, GW-22, and GW-23) located adjacent to the capped area.

B. Chronology: A ROD was issued by the NYSDEC for the RTA in March 1999 calling for ex-situ bioremediation of the nitrobenzene-contaminated soils. In 2001, a pilot-study was successfully completed for the in-situ chemical oxidation treatment of the nitrobenzene-contaminated soils. An Explanation of Significant Difference was issued in 2003, accepting an in-situ chemical oxidation remedy. Remedial action was conducted in 2003 and initially consisted of two rounds of in-situ chemical oxidation using potassium permanganate. Subsequently, treatability studies were conducted in support of stabilization of the remaining contamination, and a mixture of Portland cement and activated carbon was used to stabilize the remaining nitrobenzene-contaminated material. Final restoration activities were completed in 2004 and included

removal of approximately 1,680 cubic yards of treated and stabilized soil, which were disposed of at the Alltift Landfill site (NYSDEC site No. 9-15-054), and in-place capping of the remaining treated soils. The cap is a soil cover system that is 24 inches thick and consists of a bottom geotextile liner overlain by 20 inches of clean fill and 4 inches of topsoil. Vegetation was established over the capped area via seeding with local grasses. The Site remediation activities were documented in a Remedial Action Completion Report (August 17, 2005), which was approved by NYSDEC in a letter dated November 22, 2005. Institutional controls were also implemented, including land use restrictions and the requirement for annual inspection and maintenance of the capped area, as specified in Section 6.0 of the NYSDEC-approved Site Management Plan prepared for Honeywell by Remedial Engineering, P.C. (August 17, 2005). A Declaration of Covenants and Restrictions was executed by NYSDEC and filed at the Erie County courthouse on December 27, 2005. Quarterly groundwater monitoring events were completed by MACTEC in 2005-2006, with the results documented in a letter report issued by MACTEC on October 2, 2006. Semi-annual groundwater monitoring events were completed by MACTEC in 2006-2007, with results presented in a letter report issued by MACTEC on March 26, 2008. A Work Plan was prepared by MACTEC in December 2008 that presented requirements for ongoing inspection and monitoring for the Site. This Work Plan was approved, with amendment, by the NYSDEC, as indicated in a letter dated July 10, 2009. On September 30, 2009, MACTEC issued a letter to NYSDEC that presented the 2010 inspection and monitoring schedule for the Site.

III. Evaluation of Remedy Performance, Effectiveness and Protectiveness

A. The performance, effectiveness and protectiveness of the remedy is verified by ensuring that the cap system is intact as constructed and that the remaining nitrobenzene-contaminated soils are not leaching to groundwater.

- Ensuring the cap system is intact as constructed: Annual site inspections are conducted that include monitoring of Site vegetation, ground inspections, and visual checks for evidence of erosion or subsidence. The results from the annual inspection indicate that the integrity of the cap is sound. A copy of the annual inspection report is included in the attached OM&M Report.
- Ensuring that the remaining nitrobenzene-contaminated soils are not leaching to groundwater. Beginning in 2010, groundwater samples are to be collected once every three years from the six groundwater monitoring wells located on the Site. The samples will be analyzed for nitrobenzene and Target Analyte List (TAL) metals in accordance with EPA Methods. The 2016 analytical report is included in Attachment B.5.

IV. IC/EC Plan Compliance Report – A separate IC/EC Plan has not been prepared. A description and status of institutional and engineering controls is included in Attachment A of this PRR.

V. Monitoring Plan Compliance Report – A separate Monitoring Plan Compliance Report is not required for this site. Monitoring requirements are addressed in the Work Plan, as approved, with amendment, by the NYSDEC.

VI. Operations and Maintenance Plan Compliance Report

A. Components of the Work Plan – Requirements of the Work Plan, as amended and approved, include the following:

- Triennial Groundwater Sampling and Analysis
- Annual Site Inspections
- Maintenance Activities (annual mowing of cap, repair of areas showing erosion or subsidence, etc.).

B. Summary of OM&M Completed 2014 through 2016: Groundwater sampling and analysis (2016 only), annual site inspection, and annual mowing were completed in accordance with the Work Plan. The following summarizes the activities completed:

- The 2016 groundwater sampling event was completed in September 2016 and included collection of aqueous samples from six monitoring wells; the samples were analyzed for the parameters specified in the Work Plan. The results are summarized in the attached OM&M Report.
- Annual site inspections were conducted as outlined in the Work Plan.
- Routine maintenance activities were conducted, consisting of annual mowing events.

C. OM&M Deficiencies: None identified.

D. Conclusions and Recommendations: The following conclusions were developed based on the data collected during the 2014 through 2016 OM&M period:

- Based on the results of the annual inspection report, which verifies that the integrity of the cap is adequate and vegetation is established, the remedy remains protective and functions as a barrier that prevents direct contact with underlying waste and impacted soils.
- Based on the results of the 2016 groundwater monitoring event, which indicates that groundwater is not being contaminated by nitrobenzene leaching from the stabilized soils, the remedy is effective at preventing the leaching of contamination to groundwater.

The following recommendations were developed based on the data collected during the 2014 through 2016 OM&M period:

- Concentrations of nitrobenzene were not detected in groundwater samples collected in 2016. Therefore, it is recommended that the next triennial sampling event be conducted in 2019 in accordance with the Work Plan.
- Site inspections should continue on an annual basis.
- Routine OM&M activities should continue, including annual mowing of the capped area, on an annual basis.
- Based on discussions with David Szymanski, NYSDEC Project Manager, the next PRR submittal, should be completed and submitted to NYSDEC by December 31, 2019.

VII. Overall PRR Conclusions

A. Compliance: Inspection, maintenance, and monitoring activities were completed during the period of 2014 through 2016 in accordance with the Work Plan. The Site remains in compliance with applicable covenants and restrictions.

B. Performance and Effectiveness of the Remedy: The condition of the cap system and results of groundwater monitoring well sampling and analysis for nitrobenzene indicate that the remedy is performing effectively.

C. Future PRR submittals: It is anticipated that the next PRR will be submitted by December 31, 2019.

Closing

Please contact Mr. Ryan Belcher at (207) 828-3530 with any questions or comments on this submittal.

Respectfully,

MACTEC Engineering and Consulting, P.C.

Ryan Belcher
Senior Engineer

Mark Stelmack, P.E.
Associate Engineer

W/attachments

cc: M. Sweitzer (Honeywell) – electronic copy
T. Carvana (NFTA) – electronic copy

ATTACHMENT A

PRR NOTICE
IC/EC CONTROLS CERTIFICATION FORM

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **915026**

Site Name Buffalo Outer Harbor-Radio Tower Area

Site Address: 901 Fuhrmann Boulevard Zip Code: 14205
City/Town: Buffalo
County: Erie
Site Acreage: 0.9

Reporting Period: November 30, 2013 to November 30, 2016

	YES	NO
1. Is the information above correct?	☑	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☑
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☑
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☑
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☑

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	☑	☐
7. Are all ICs/ECs in place and functioning as designed?	☑	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

SITE NO. 915026

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
122.17-1-1	Niagara Frontier Transp. Authority	Site Management Plan Soil Management Plan Landuse Restriction Ground Water Use Restriction

1. Maintenance of the soil cover in accordance with Site Management Plan
2. Site limited to industrial or commercial use only, excluding day care, child care and medical care uses.
3. Use of groundwater underlying site prohibited without treatment rendering it safe for drinking water or industrial purposes.
4. Annual inspection required to confirm that the remedy (cover) and required restrictions remain in place.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
122.17-1-1	Cover System

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☑	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☑	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative — Date

IC CERTIFICATIONS
SITE NO. 915026

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I MARK A. SWEITZER (print name) at HONEYWELL 6100 PHILADELPHIA PIKE CLAYMONT DE 19703 (print business address)

am certifying as REMEDIAL PARTY (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

DECEMBER 14, 2016
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I MARK STELMACK (print name) at MACTEC ENGINEERING & CONSULTING, P.C. 511 CONGRESS ST. SUITE 200 PORTLAND, ME 04101 (print business address)

am certifying as a Professional Engineer for the HONEYWELL (Owner or Remedial Party)

Mark Stelmack

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

Date DEC. 12, 2016

ATTACHMENT B

SUPPORTING TABLES, FIGURES, AND APPENDICES

Attachment B.1 Summary of Depth to Water Measurements

Table 1: Summary of Depth to Water Measurements

		9/15/2005		12/5/2005		3/9/2006		6/13/2006		6/27/2007		12/28/2007		10/28/2010		9/10/2013		10/6/2014		10/14/2015		9/22/2016				
Well ID	**Top of PVC**	**Depth to Water (ft.)**	**Elevation (ft-msl)**	**Depth to Water (ft.)**	**Elevation (ft-msl)**	**Depth to Water (ft.)**	**Elevation (ft-msl)**	**Depth to Water (ft.)**	**Elevation (ft-msl)**	**Depth to Water (ft.)**	**Elevation (ft-msl)**	**Depth to Water (ft.)**	**Elevation (ft-msl)**	**Depth to Water (ft.)**	**Elevation (ft-msl)**	**Depth to Water (ft.)**	**Elevation (ft-msl)**	**Depth to Water (ft.)**	**Elevation (ft-msl)**	**Depth to Water (ft.)**	**Elevation (ft-msl)**	**Depth to Water (ft.)**	**Elevation (ft-msl)**	MIN	MAX	AVG
GW-18R	N/A	10.33	-	6.25		7.06	-	9.00	-	9.09	-	5.97	-	10.99	-	10.00	-	10.80	-	11.10	-	11.70	-	5.97	11.70	9.30
GW-19	587.20	13.99	573.21	5.73	581.47	6.95	580.25	9.07	578.13	11.91	575.29	5.67	581.53	14.02	573.18	13.20	574.00	13.05	574.15	12.40	574.80	13.40	573.80	5.67	14.02	10.85
GW-20	N/A	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	16.79	-	14.20	-	14.60	-	14.00	-	14.60	-	14.00	16.79	14.84
GW-21	586.61	8.31	578.30	4.22	582.39	4.97	581.64	8.20	578.41	7.20	579.41	4.07	582.54	8.90	577.71	8.00	578.61	8.70	577.91	8.90	577.71	9.40	577.21	4.07	9.40	7.35
GW-22	585.82	9.13	576.69	2.90	582.92	3.05	582.77	7.11	578.71	7.22	578.60	2.72	583.10	11.03	574.79	10.30	575.52	10.20	575.62	10.60	575.22	12.60	573.22	2.72	12.60	7.90
GW-23	586.00	12.24	573.76	6.18	579.82	7.17	578.83	9.30	576.70	9.79	576.21	5.58	580.42	13.49	572.51	11.70	574.30	12.38	573.62	12.20	573.80	13.10	572.90	5.58	13.49	10.28

Notes:

1) Water level measurements are in units of feet above mean sea level (ft-msl)

2) N/A = elevation of top of PVC casing not established

3) NM = Not measured

Prepared By/Date: RTB 10-24-2016

Checked By/Date: JWF 11-18-2016

Attachment B.2 Summary of Groundwater Analytical Results

Table 2: Summary of Groundwater Analytical Results

		Location	GW-18R	GW-18R	GW-18R	GW-18R	GW-18R
		Field Sample ID	GW-18R-0905	MW-18R 12/05/2005	GW-18R-0306	GW-18R-0606	GW-18R-1206
		Sample Date	09/15/05	12/05/05	03/09/06	06/01/06	12/28/06
Parameter Name		Units					
ALUMINUM	null	mg/l	<0.2	**1.9J**	**14.9J**	**15.1J**	**9.8**
ANTIMONY	0.003	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
ARSENIC	0.025	mg/l	<0.01	**0.021**	**0.041**	**0.038**	**0.025**
BARIUM	1	mg/l	**0.078**	**0.12**	**0.262**	**0.22**	**0.18**
BERYLLIUM	0.003	mg/l	<0.002	<0.002	<0.002	<0.002	<0.002
CADMIUM	0.005	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
CALCIUM	null	mg/l	**239**	**323**	**303**	**294**	**296**
CHROMIUM	0.05	mg/l	<0.004	<0.004	**0.0217**	**0.026**	**0.016**
COBALT	null	mg/l	<0.004	<0.004	**0.0083**	**0.0087**	**0.0061**
COPPER	0.2	mg/l	<0.01	**0.011**	**0.0321**	**0.035**	**0.025**
IRON	0.3	mg/l	**4.6J**	**2.4J**	**19.1J**	**24.4J**	**13.3**
LEAD	0.025	mg/l	<0.005	**0.024J**	**0.0957J**	**0.11**	**0.08**
MAGNESIUM	35	mg/l	**40**	**53.6**	**55.8**	**54.9J**	**50.5**
MANGANESE	0.3	mg/l	**0.64**	**0.99J**	**1.22**	**1.4J**	**1.2**
MERCURY	0.0007	mg/l	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
NICKEL	null	mg/l	<0.01	<0.015	**0.0208**	**0.022**	**0.015**
POTASSIUM	null	mg/l	**24**	**20.5**	**20.7**	**26.8**	**33.3**
SELENIUM	0.01	mg/l	<0.01	<0.01	<0.015	<0.015	<0.015
SILVER	0.05	mg/l	<0.003	<0.003	<0.003	<0.003	<0.003
SODIUM	20	mg/l	**22.3**	**19.3J**	**18.2**	**19.8**	**19.2**
THALLIUM	0.0005	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
VANADIUM	null	mg/l	<0.005	**0.0074**	**0.034**	**0.032**	**0.021**
ZINC	2	mg/l	<0.02	**0.55**	**0.362J**	**0.41**	**0.54**
NITROBENZENE	0.4	ug/l	<9	<10	<10	<10	<0.5

Table 2: Summary of Groundwater Analytical Results

		GW-18R	GW-18R	GW-18R	GW-18R	GW-18R	GW-19
		GW-18R-0607	GW-18RR-0607	GW-18R-102810	GW-18R-091013	GW-18R-092216	GW-19-0905
		06/27/07	06/27/07	10/28/10	09/10/13	09/22/16	09/15/05
Parameter Name							
ALUMINUM	null	**6.1**	**4.8**	**2.39**	**2.4**	**161**	**0.68**
ANTIMONY	0.003	<0.020	<0.020	<0.02	<0.0068	**0.018J**	<0.02
ARSENIC	0.025	**0.02**	**0.019**	**0.013J**	**0.032**	**0.41**	**0.028**
BARIUM	1	**0.14**	**0.13**	**0.106**	**0.1**	**1.5**	**0.012**
BERYLLIUM	0.003	<0.0020	<0.0020	<0.002	<0.0003	**0.010**	<0.002
CADMIUM	0.005	<0.0010	<0.0010	<0.001	**0.00083J**	**0.014**	<0.001
CALCIUM	null	**273**	**273**	**217J**	**262**	**934**	**18.1**
CHROMIUM	0.05	**0.011**	**0.008**	**0.0046**	**0.0062**	**0.38**	<0.004
COBALT	null	<0.0040	<0.0040	**0.0021J**	**0.003J**	**0.15**	<0.004
COPPER	0.2	**0.016**	**0.013**	**0.0078J**	**0.016**	**0.55**	**0.02**
IRON	0.3	**11.9**	**10**	**4.19J**	**10.7**	**251**	<0.05
LEAD	0.025	**0.046**	**0.038**	**0.0293J**	**0.075**	**2.2**	<0.005
MAGNESIUM	35	**47.6**	**46.1**	**38.1J**	**45.8**	**234**	<0.2
MANGANESE	0.3	**0.98**	**0.9**	**0.478J**	**0.6**	**8.6**	<0.003
MERCURY	0.0007	<0.00020	<0.00020	<0.0002	<0.00012	**0.012**	<0.0002
NICKEL	null	**0.01**	<0.010	**0.0054J**	**0.0055J**	**0.38**	**0.015**
POTASSIUM	null	**29.1**	**29.5**	**40.5**	**40.8J**	**58.8**	**513**
SELENIUM	0.01	<0.015	<0.015	<0.015	<0.0087	**0.11**	<0.01
SILVER	0.05	<0.0030	<0.0030	<0.003	<0.0017	<0.0017	<0.003
SODIUM	20	**18.8**	**19.1**	**19.1**	**18.3J**	**16.5**	**49.5**
THALLIUM	0.0005	<0.020	<0.020	<0.02	<0.01	<0.010	<0.02
VANADIUM	null	**0.014**	**0.012**	**0.0064**	**0.0091**	**0.39**	**0.037**
ZINC	2	**0.29**	**0.25**	**0.244J**	**0.35**	**9.5**	<0.02
NITROBENZENE	0.4	<0.5	<0.5	<0.52	<0.062	<0.61	<10

Table 2: Summary of Groundwater Analytical Results

		GW-19	GW-19	GW-19	GW-19	GW-19	GW-19
		MW-19 12/05/2005	MW-19D 12/05/2005	GW-19-0306	GW-19-0606	GW-19D-0606	GW-19-1206
		12/05/05	12/05/05	03/09/06	06/01/06	06/01/06	12/28/06
Parameter Name							
ALUMINUM	null	**2.2J**	**1.3J**	**1.95J**	**7.4J**	**8.6J**	**1.6**
ANTIMONY	0.003	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
ARSENIC	0.025	<0.01	<0.01	<0.01	**0.026**	**0.025**	<0.01
BARIUM	1	**0.038**	**0.035**	**0.0328**	**0.073**	**0.077**	**0.02J**
BERYLLIUM	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
CADMIUM	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
CALCIUM	null	**91.8**	**109**	**78.2**	**52.7**	**53.4**	**72.6**
CHROMIUM	0.05	**0.04**	**0.041**	**0.0364**	**0.089**	**0.086**	**0.029**
COBALT	null	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
COPPER	0.2	**0.013**	<0.01	<0.01	**0.028**	**0.03**	<0.01
IRON	0.3	**1.4J**	<0.05	**0.656J**	**6.9J**	**8.5J**	**0.32J**
LEAD	0.025	**0.011J**	<0.005	<0.005	**0.08**	**0.079**	<0.005
MAGNESIUM	35	**1.4J**	<0.2	**0.7**	**4.5J**	**4.7J**	**0.34J**
MANGANESE	0.3	**0.03J**	<0.003	**0.0177**	**0.2J**	**0.2J**	**0.0093J**
MERCURY	0.0007	<0.0002	<0.0002	<0.0002	**0.00086**	**0.00086**	<0.0002
NICKEL	null	<0.01	<0.01	<0.01	**0.016**	**0.018**	<0.01
POTASSIUM	null	**257**	**176**	**294**	**514**	**517**	**316**
SELENIUM	0.01	**0.017**	<0.01	<0.015	**0.015**	**0.015**	<0.015
SILVER	0.05	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
SODIUM	20	**20.1J**	**12.2J**	**20.1**	**46.1**	**45.4**	**24.2**
THALLIUM	0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
VANADIUM	null	**0.018**	**0.013**	**0.0164**	**0.055**	**0.056**	**0.018**
ZINC	2	**0.02**	<0.02	**0.0162J**	**0.1**	**0.11**	<0.01
NITROBENZENE	0.4	<10	<10	<10	<10	<10	<0.5

Table 2: Summary of Groundwater Analytical Results

		GW-19	GW-19	GW-19	GW-19	GW-20	GW-20
		GW-19-0607	GW-19-102810	GW-19-091013	GW-19-092216	GW-20-102810	GW-20-091013
		06/27/07	10/28/10	09/10/13	09/22/16	10/28/10	09/10/13
Parameter Name							
ALUMINUM	null	**1.2**	**0.795**	**1.4**	**1.1**	**0.727**	**0.7**
ANTIMONY	0.003	<0.020	<0.02	<0.0068	<0.0068	<0.02	<0.0068
ARSENIC	0.025	**0.03**	**0.0151J**	**0.03**	**0.021**	<0.01	<0.0056
BARIUM	1	**0.021**	**0.0135**	**0.019**	**0.02**	**0.0331**	**0.049**
BERYLLIUM	0.003	<0.0020	<0.002	<0.0003	<0.00030	<0.002	<0.0003
CADMIUM	0.005	<0.0010	<0.001	<0.0005	**0.00058J**	<0.001	<0.0005
CALCIUM	null	**36.9**	**32.9J**	**60.6**	**59.9**	**28.6J**	**52.8**
CHROMIUM	0.05	**0.016**	**0.0018**	**0.011**	**0.0044**	**0.0011**	**0.0018J**
COBALT	null	<0.0040	<0.004	<0.00063	<0.00063	<0.004	<0.00063
COPPER	0.2	**0.036**	**0.0156J**	**0.1**	**0.052**	**0.0019J**	**0.0026J**
IRON	0.3	**1**	**0.098J**	**0.25**	**0.58**	**0.436J**	**0.64**
LEAD	0.025	**0.026**	**0.0125J**	<0.006	**0.023**	**0.0105J**	**0.0041J**
MAGNESIUM	35	**1.4**	**0.565J**	**1.3**	**0.74**	**5.29J**	**7.4**
MANGANESE	0.3	**0.031**	**0.0024J**	**0.0053**	**0.0082**	**0.0595J**	**0.1**
MERCURY	0.0007	<0.00020	**0.0001J**	**0.0012**	**0.00063**	<0.0002	<0.00012
NICKEL	null	**0.013**	**0.009J**	**0.013**	**0.0062J**	<0.01	<0.0013
POTASSIUM	null	**677**	**473**	**539**	**421**	**137**	**143**
SELENIUM	0.01	**0.016**	<0.015	**0.042**	**0.013J**	<0.015	<0.0087
SILVER	0.05	<0.0030	<0.003	**0.0018J**	<0.0017	<0.003	<0.0017
SODIUM	20	**57.8**	**34.1**	**46.9**	**32.8**	**50.7**	**34.6**
THALLIUM	0.0005	<0.020	<0.02	<0.01	<0.010	<0.02	<0.01
VANADIUM	null	**0.052**	**0.0347**	**0.065**	**0.035**	**0.0111**	**0.0078**
ZINC	2	**0.039**	**0.0022J**	**0.013**	**0.0099J**	**0.0208J**	**0.023**
NITROBENZENE	0.4	<0.5	<0.53	<0.062	<0.31	<0.53	<0.062

Table 2: Summary of Groundwater Analytical Results

		GW-20	GW-20	GW-21	GW-21	GW-21	GW-21
		GW-20-092216	FDUP-GW-20-09221	GW-21-0905	MW-21 12/05/2005	GW-21-0306	GW-21-0606
		09/22/16	09/22/16	09/15/05	12/05/05	03/09/06	06/01/06
Parameter Name							
ALUMINUM	null	**0.22**	**0.21**	<0.2	<0.2	<0.2	<0.2
ANTIMONY	0.003	<0.0068	<0.0068	<0.02	<0.02	<0.02	<0.02
ARSENIC	0.025	**0.0064J**	**0.0079J**	<0.01	<0.01	<0.01	<0.01
BARIUM	1	**0.038J**	**0.027J**	**0.03**	**0.046**	**0.0402**	**0.033**
BERYLLIUM	0.003	<0.00030	<0.00030	<0.002	<0.002	<0.002	<0.002
CADMIUM	0.005	<0.00050	<0.00050	<0.001	<0.001	<0.001	<0.001
CALCIUM	null	**47.9J**	**27.3J**	**30.2**	**42.6**	**32.6**	**29.6**
CHROMIUM	0.05	<0.0010	<0.0010	<0.004	<0.004	<0.004	<0.004
COBALT	null	<0.00063	<0.00063	<0.004	<0.004	<0.004	<0.004
COPPER	0.2	**0.0016J**	**0.0019J**	<0.01	<0.01	<0.01	<0.01
IRON	0.3	**0.26**	**0.28**	<0.05	**0.086J**	**0.231J**	**0.48J**
LEAD	0.025	**0.0043J**	**0.0050J**	<0.005	<0.005	<0.005	<0.005
MAGNESIUM	35	**4.7J**	**2.5J**	**1.2**	**4.2J**	**5.26**	**6.6J**
MANGANESE	0.3	**0.091J**	**0.052J**	<0.003	**0.0037J**	**0.0068**	**0.011J**
MERCURY	0.0007	<0.00012	<0.00012	<0.0002	<0.0002	<0.0002	<0.0002
NICKEL	null	**0.0015J**	<0.0013	<0.01	<0.01	<0.01	<0.01
POTASSIUM	null	**139**	**135**	**18.9**	**20.8**	**15.7**	**16.9**
SELENIUM	0.01	<0.0087	<0.0087	<0.01	<0.01	<0.015	<0.015
SILVER	0.05	<0.0017	<0.0017	<0.003	<0.003	<0.003	<0.003
SODIUM	20	**42.9**	**47**	**13**	**14.1J**	**10.9**	**11.2**
THALLIUM	0.0005	<0.010	<0.010	<0.02	<0.02	<0.02	<0.02
VANADIUM	null	**0.012J**	**0.015J**	<0.005	<0.005	<0.005	<0.005
ZINC	2	**0.0070J**	**0.0093J**	<0.02	<0.02	**0.013J**	**0.018**
NITROBENZENE	0.4	<0.061	<0.062	<10	<10	<10	<10

Table 2: Summary of Groundwater Analytical Results

		GW-21	GW-21	GW-21	GW-21	GW-21	GW-22
		GW-21-1206	GW-21-0607	GW-21-102810	GW-21-091013	GW-21-092216	GW-22-0905
		12/28/06	06/27/07	10/28/10	09/10/13	09/22/16	09/15/05
Parameter Name							
ALUMINUM	null	<0.2	<0.20	**0.075J**	**0.067J**	<0.060	<0.2
ANTIMONY	0.003	<0.02	<0.020	<0.02	<0.0068	<0.0068	<0.02
ARSENIC	0.025	<0.01	<0.010	<0.01	<0.0056	**0.0062J**	**0.014**
BARIUM	1	**0.031**	**0.031**	**0.0329**	**0.053**	**0.032**	**0.14**
BERYLLIUM	0.003	<0.002	<0.0020	<0.002	<0.0003	<0.00030	<0.002
CADMIUM	0.005	<0.001	<0.0010	<0.001	<0.0005	<0.00050	<0.001
CALCIUM	null	**30.4**	**29**	**31.4J**	**49**	**31.8**	**218**
CHROMIUM	0.05	<0.004	<0.0040	<0.004	**0.0011J**	<0.0010	<0.004
COBALT	null	<0.004	<0.0040	<0.004	<0.00063	<0.00063	<0.004
COPPER	0.2	<0.01	<0.010	<0.01	**0.0017J**	<0.0016	<0.01
IRON	0.3	**0.1**	**0.093**	**0.113J**	**0.088**	**0.75**	**7.7J**
LEAD	0.025	<0.005	<0.0050	<0.005	<0.003	<0.0030	<0.005
MAGNESIUM	35	**3.5**	**3.7**	**2.39J**	**13.3**	**5.7**	**75**
MANGANESE	0.3	**0.003**	**0.0036**	**0.0027J**	**0.012**	**0.0094**	**0.47**
MERCURY	0.0007	<0.0002	<0.00020	<0.0002	<0.00012	<0.00012	<0.0002
NICKEL	null	<0.01	<0.010	<0.01	<0.0013	<0.0013	<0.01
POTASSIUM	null	**15.2**	**15.6**	**19.4**	**20.7**	**16.4**	**24**
SELENIUM	0.01	<0.015	<0.015	<0.015	<0.0087	<0.0087	<0.01
SILVER	0.05	<0.003	<0.0030	<0.003	<0.0017	<0.0017	<0.003
SODIUM	20	**9.5**	**10.5**	**13.9**	**14.2**	**12**	**44.4**
THALLIUM	0.0005	<0.02	<0.020	<0.02	<0.01	<0.010	<0.02
VANADIUM	null	<0.005	<0.0050	**0.0022J**	**0.0019J**	**0.0027J**	<0.005
ZINC	2	**0.038**	**0.014**	**0.0068J**	**0.0049J**	**0.0083J**	<0.02
NITROBENZENE	0.4	<0.5	<0.5	<0.51	<0.062	<0.31	<12

Table 2: Summary of Groundwater Analytical Results

		GW-22	GW-22	GW-22	GW-22	GW-22	GW-22
		MW-22 12/05/2005	GW-22-0306	GW-22-0606	GW-22-1206	GW-22-0607	GW-22-102810
		12/05/05	03/09/06	06/01/06	12/28/06	06/27/07	10/28/10
Parameter Name							
ALUMINUM	null	**3.9J**	**8.56J**	**7.3J**	**4.9**	**11**	**8.85**
ANTIMONY	0.003	<0.02	<0.02	<0.02	<0.02	<0.020	**0.0409J**
ARSENIC	0.025	<0.01	<0.01	<0.01	<0.01	**0.011**	**0.0301J**
BARIUM	1	**0.16**	**0.213**	**0.24**	**0.16**	**0.22**	**0.145**
BERYLLIUM	0.003	<0.002	<0.002	<0.002	<0.002	<0.0020	**0.0003J**
CADMIUM	0.005	<0.001	<0.001	<0.001	<0.001	<0.0010	**0.0031J**
CALCIUM	null	**409**	**309**	**269**	**314**	**320**	**278J**
CHROMIUM	0.05	**0.008**	**0.0175**	**0.014**	**0.0093**	**0.027**	**0.018**
COBALT	null	**0.0052**	**0.0056**	**0.0051**	**0.0048**	**0.0073**	**0.0056**
COPPER	0.2	**0.039**	**0.0654**	**0.042**	**0.037**	**0.038**	**0.156J**
IRON	0.3	**11.1J**	**19.8J**	**17.2J**	**9.8**	**22.4**	**23.2J**
LEAD	0.025	**0.074J**	**0.173J**	**0.14**	**0.097**	**0.077**	**0.15J**
MAGNESIUM	35	**127J**	**83.9**	**76.7J**	**95.6**	**113**	**113J**
MANGANESE	0.3	**1.6J**	**1.16**	**1J**	**1.3**	**1.4**	**1.07J**
MERCURY	0.0007	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020	**0.0001J**
NICKEL	null	**0.02**	**0.0196**	**0.015**	**0.017**	**0.023**	**0.0222**
POTASSIUM	null	**52.5**	**38.3**	**36.4**	**48.8**	**44.4**	**41**
SELENIUM	0.01	<0.01	<0.015	<0.015	<0.015	<0.015	<0.015
SILVER	0.05	<0.003	<0.003	<0.003	<0.003	<0.0030	<0.003
SODIUM	20	**94.5J**	**60.9**	**51**	**72.6**	**68.8**	**61.5**
THALLIUM	0.0005	<0.02	<0.02	<0.02	<0.02	<0.020	<0.02
VANADIUM	null	**0.0072**	**0.016**	**0.014**	**0.0087**	**0.024**	**0.0156**
ZINC	2	**0.094**	**0.187J**	**0.14**	**0.1**	**0.19**	**0.595J**
NITROBENZENE	0.4	<10	<10	<10	<0.5	<0.5	<0.52

Table 2: Summary of Groundwater Analytical Results

		GW-22	GW-22	GW-23	GW-23	GW-23	GW-23
		GW-22-091013	GW-22-092616	GW-23-0905	GW-23D-0905	MW-23 12/05/2005	GW-23-0306
		09/10/13	09/26/16	09/15/05	09/15/05	12/05/05	03/09/06
Parameter Name							
ALUMINUM	null	**10**	**2.7**	<0.2	<0.2	<0.2	**1.78J**
ANTIMONY	0.003	**0.072**	**0.0095J**	<0.02	<0.02	<0.02	**0.0409**
ARSENIC	0.025	**0.049**	**0.010J**	**0.013**	**0.014**	**0.019**	**0.0168**
BARIUM	1	**0.1**	**0.054**	**0.28**	**0.27**	**0.27**	**0.306**
BERYLLIUM	0.003	**0.00049J**	<0.00030	<0.002	<0.002	<0.002	<0.002
CADMIUM	0.005	**0.0025**	**0.00085J**	<0.001	<0.001	<0.001	<0.001
CALCIUM	null	**508**	**363**	**210**	**202**	**247**	**230**
CHROMIUM	0.05	**0.03**	**0.0069**	<0.004	<0.004	<0.004	**0.0072**
COBALT	null	**0.0089**	**0.0036J**	<0.004	<0.004	<0.004	<0.004
COPPER	0.2	**0.28**	**0.032**	<0.01	<0.01	**0.011**	**0.0826**
IRON	0.3	**42.2**	**10.6**	**6.1J**	**5.9**	**11J**	**12.4J**
LEAD	0.025	**0.2**	**0.030**	<0.005	<0.005	**0.0078J**	**0.0691J**
MAGNESIUM	35	**205**	**179**	**92.9**	**86.1**	**35.1J**	**57.6**
MANGANESE	0.3	**2**	**1.4**	**0.58**	**0.54**	**1.4J**	**0.972**
MERCURY	0.0007	**0.00022**	<0.00012	<0.0002	<0.0002	<0.0002	<0.0002
NICKEL	null	**0.039**	**0.015**	<0.01	<0.01	<0.01	<0.01
POTASSIUM	null	**55.5**	**44.8**	**31.7**	**30.8**	**73.1**	**61.3**
SELENIUM	0.01	<0.0087	<0.0087	<0.01	<0.01	<0.01	<0.015
SILVER	0.05	<0.0017	**0.0020J**	<0.003	<0.003	<0.003	<0.003
SODIUM	20	**74.2**	**72.9**	**51.9**	**49.2**	**26.9J**	**38.3**
THALLIUM	0.0005	<0.01	<0.010	<0.02	<0.02	<0.02	<0.02
VANADIUM	null	**0.021**	**0.0047J**	<0.005	<0.005	<0.005	**0.005**
ZINC	2	**0.85**	**0.14**	<0.02	<0.02	<0.02	**0.163J**
NITROBENZENE	0.4	**0.13J**	<0.31	<10	<10	<10	<10

Table 2: Summary of Groundwater Analytical Results

		GW-23	GW-23	GW-23	GW-23	GW-23
		GW-23-0606	GW-23-1206	GW-23-1206 DUPLICATE	GW-23-0607	GW-23-102810
		06/01/06	12/28/06	12/28/06	06/27/07	10/28/10
Parameter Name						
ALUMINUM	null	**1.3J**	**8J**	**2J**	<0.20	**0.964**
ANTIMONY	0.003	**0.044**	**0.28J**	**0.1J**	**0.054**	**0.104J**
ARSENIC	0.025	**0.048**	**0.022J**	<0.01	<0.010	**0.0183J**
BARIUM	1	**0.36**	**0.38J**	**0.21J**	**0.2**	**0.146**
BERYLLIUM	0.003	<0.002	<0.002	<0.002	<0.0020	<0.002
CADMIUM	0.005	<0.001	**0.0098J**	**0.0021J**	<0.0010	**0.0126J**
CALCIUM	null	**236**	**263**	**210**	**202**	**184J**
CHROMIUM	0.05	**0.0042**	**0.028J**	**0.0068J**	<0.0040	**0.0038**
COBALT	null	<0.004	**0.012J**	<0.004	<0.0040	**0.0026J**
COPPER	0.2	**0.048**	**0.39J**	**0.1J**	<0.010	**0.501J**
IRON	0.3	**17.8J**	**27.2J**	**9J**	**3.4**	**8.59J**
LEAD	0.025	**0.039**	**0.4J**	**0.1J**	**0.0064**	**0.624J**
MAGNESIUM	35	**34.6J**	**45.2J**	**32.4J**	**37.7**	**35.9J**
MANGANESE	0.3	**0.64J**	**1.3J**	**0.82J**	**0.75**	**0.504J**
MERCURY	0.0007	<0.0002	**0.00036**	<0.0002	<0.00020	**0.0008J**
NICKEL	null	**0.025**	**0.035J**	**0.01J**	<0.010	**0.0144**
POTASSIUM	null	**88**	**65.6**	**64.1**	**67.9**	**72.7**
SELENIUM	0.01	<0.015	**0.016**	<0.015	<0.015	**0.0376**
SILVER	0.05	<0.003	<0.003	<0.003	<0.0030	<0.003
SODIUM	20	**33.9**	**22**	**21.7**	**29.4**	**28.2**
THALLIUM	0.0005	<0.02	<0.02	<0.02	<0.020	<0.02
VANADIUM	null	**0.0052**	**0.022J**	**0.0061J**	<0.0050	**0.0078**
ZINC	2	**0.058**	**2.5J**	**0.78J**	**0.027**	**2.06J**
NITROBENZENE	0.4	<9	<0.5	<0.5	<0.5	<0.51

Table 2: Summary of Groundwater Analytical Results

		GW-23	GW-23	GW-23
		GW-23DUP-102810	GW-23-091013	GW-23-092216
		10/28/10	09/10/13	09/22/16
Parameter Name				
ALUMINUM	null	**0.876**	**1.6**	**1.0**
ANTIMONY	0.003	**0.0726J**	**0.14**	**0.053**
ARSENIC	0.025	<0.01	**0.028**	**0.039**
BARIUM	1	**0.136**	**0.12**	**0.18**
BERYLLIUM	0.003	<0.002	<0.0003	<0.00030
CADMIUM	0.005	**0.0102J**	**0.018**	**0.0012J**
CALCIUM	null	**182J**	**280**	**245**
CHROMIUM	0.05	**0.0026**	**0.0072**	**0.0085**
COBALT	null	**0.002J**	**0.0054**	**0.0013J**
COPPER	0.2	**0.405J**	**0.94**	**0.22**
IRON	0.3	**3.07J**	**11.4**	**25.3**
LEAD	0.025	**0.372J**	**1.4**	**0.86**
MAGNESIUM	35	**35.6J**	**58.5**	**53.2**
MANGANESE	0.3	**0.523J**	**0.61**	**0.57**
MERCURY	0.0007	**0.0011J**	**0.0011**	**0.00057**
NICKEL	null	**0.0146**	**0.021**	**0.0064J**
POTASSIUM	null	**72.7**	**81.6J**	**50.9**
SELENIUM	0.01	**0.0293**	**0.091**	**0.011J**
SILVER	0.05	<0.003	**0.0024J**	<0.0017
SODIUM	20	**28.3**	**29.8J**	**20.6**
THALLIUM	0.0005	<0.02	<0.01	<0.010
VANADIUM	null	**0.0045J**	**0.011**	**0.02**
ZINC	2	**1.22J**	**2.7**	**0.11**
NITROBENZENE	0.4	<0.54	<0.061	<0.061

Prepared by/Date: Lakshmi 10/31/2016
Checked by/Date: WCG 10/31/2016

Attachment B.3 Site Location Plan

MON WELL
GW–20
GROUND=586.07
TOP OF CAP=588.27

LANDS N/F
NIAGARA FRONTIER TRANSPORTATION AUTHORITY
TMP# 122.17–1–1
L.6434 P.43

N 1041144.28
E 1070954.37

N63°56'28"W
34.66'

N79°26'09"W
106.97'

6' CHAIN LINK FENCE

CC–2
PK NAIL
N: 1041161.17
E: 1071297.92
ELEV.=585.64'

MON WELL
GW–18R
GROUND=585.77
TOP OF CAP=588.55
SEAM OF CAP=588.21

CC–2
PK NAIL
N: 1041098.60
E: 1071109.17
ELEV.=585.70'

S28°58'36"W
179.04'

EDGE OF PAVEMENT

AREA:
39,016 SQ.FT.
0.896± ACRES

N25°14'12"E
121.63'

MON WELL
GW–22
GROUND=583.33
TOP OF CAP=586.24
SEAM OF CAP=585.89

CHA #1
PK NAIL
N 1040999.22
E 1071060.99
ELEV.=585.52'

MON WELL
GW–21
GROUND=584.73
TOP OF CAP=586.94

N21°11'57"W
45.89'

LIGHT

MON WELL
GW–23
GROUND=583.70
TOP OF CAP=586.62
SEAM OF CAP=586.27

N43°36'11"E
41.53'

EDGE OF PAVEMENT

S24°26'10"E
164.87'

N38°46'30"E
45.15'

POINT OF BEGINNING

N49°20'15"E
82.58'

MON WELL
GW–19
GROUND=584.95
TOP OF CAP=587.33

6' CHAIN LINK FENCE

N 1040837.61
E 1070935.97

HIGHWAY BOUNDARY LINE
FUHRMANN BOULEVARD

N20°15'55"W
1115.50'

S20°15'55"E
1.65'

S69°12'31"W
100.31'

CAPPED REBAR
FND.
N 1040172.57
E 1072347.92

993.90'

POINT OF COMMENCEMENT

S69°44'05"W

LANDS N/F
FREEZER QUEEN FOOS, INC.
TMP# 132.06–1–1.1
L.9547 P.579

LEGEND

MON WELL	MONITORING WELL
CAPPED REBAR	PROPERTY MONUMENTATION (CAPPED REBAR)
LIGHT	LIGHT POLE
	HIGHWAY BOUNDARY LINE
	PARCEL BOUNDARY LINE
	CHAIN LINK FENCE
	EDGE OF PAVEMENT

REFERENCES:

1. DEED DESCRIBING THE LANDS N/F OF "NIAGARA FRONTIER PORT AUTHORITY", FILED IN THE ERIE COUNTY CLERK'S OFFICE (E.C.C.O.) IN LIBER 6434 OF DEEDS, PAGE 43.
2. DEED DESCRIBING THE LANDS N/F OF "FREEZER QUEEN FOODS, INC.", FILED IN ERIE COUNTY CLERK'S OFFICE (E.C.C.O.) IN LIBER 9547 OF DEEDS, PAGE 579.
3. NGS MONUMENT INFORMATION.

NOTES:

1. PLANTIMENTRICS SHOWN HEREON ARE PREPARED BY CLOUGH, HARBOUR & ASSOCIATES, L.L.P FROM AN APRIL 2005 FIELD SURVEY. REF. "ROCH" FB.75, P.67
2. ELEVATIONS ARE BASED ON N.A.V.D. 1988 DATUM REFERENCING NATIONAL GEODETIC SURVEY MONUMENT MONUMENT Q 388, ELEV. = 581.66', USING DIFFERENTIAL LEVELING TECHNIQUES.
3. NORTH ORIENTATION AND COORDINATES SHOWN HEREON BASED ON N.Y.S. PLANE WEST ZONE, NAD 83, REFERENCING MONUMENTS;

BUFFALO R IMPROVEMENT CORP TK	LEHR
N:1040703.604	N:1030094.885
E:1076485.685	E:1076447.880

4. NO BOUNDARY DETERMINATION PERFORMED IN THE PREPARATION OF THIS PLAN.
5. OWNER'S INFORMATION BASED ON TAX INFORMATION.
6. ADDITIONAL FIELDWORK PERFORMED ON JULY 19, 2005. REF. "ROCH" FB.95, P.1

GRAPHIC SCALE
50 0 25 50 100
1 inch = 50 ft.

I HEREBY CERTIFY THAT THIS PLAN WAS COMPLETED ⚠1 ON JULY 21 2005 USING LISTED REFERENCES AND FIELD NOTES FROM AN ACTUAL FIELD SURVEY COMPLETED ON JULY 19, 2005.

DAVID L. STANDINGER NYSPLS. #050107 DATE

CLOUGH HARBOUR & ASSOCIATES LLP
Powers Building, 16 Main Street West, Suite 830,
Rochester, NY 14614-1607
PHONE (585) 262-2640
FAX (585) 262-2642
www.cloughharbour.com

Revisions	Drawn By:	App'd. By:	Date:
1. REVISED DATE (JUNE TO JULY)	DLS		8/25/05
0. MAP ISSUED	DJH	DLS	7/22/05

David L. Standinger NYSPLS # 050107

Plan
showing
INSTITUTIONAL CONTROL AREA
being a portion of property N/F
NIAGARA FRONTIER TRANSPORTATION AUTHORITY
City of Buffalo County of Erie State of New York

Scale: 1"=50' | Date: JULY, 2005 | Sheet 1 OF 1

Dwg: I:\13258\survey\acad\VBASE–132582000.dwg Xref: NONE Dview: NONE CHA Project Number: 13258

Attachment B.4 Field Data Collection Records

ch2m

Project Name Honeywell Outer Habor Buffalo **Sampling Event**
Job Number
Field Team B Macera / M Stout
Field Conditions
Date 09/23/2016
Page ___ of ___

Well/Sample Number GW-23 Start Time 10:30 Finish Time
Initial Depth to Water 13.1 Measure Point: PVC Steel Casing Other:

Purge Method:
Geopump Ded. Pump (Other)
Sample Method: Bailer

Sample ID GW-23-092216 Sample Time 10:50
Duplicate Sample ID Dupl. Time
Split Sample ID Split. Time

Depth to Botton (from meas. pt): 22.1 Min. Purge Volume (gal)/(L) 4.4 Purge Rate (gpm)/(mLpm)
Water Quality Parameter Measurment Technique: flow-thru cell in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
10:32	GEM Readings: LEL CH_4 000%		CH_4: 0.0%	CO_2: .1%	O_2 19.4%	Bat 80.4%		
10:36	Started purging well							
10:42	Collect Horiba Parameters	8.2	1.72	601	2.1	13.4	-108	
10:50	Collect Sample							
							Cut lock	

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
	Plastic	250 mL	N	HNO_3		GW23-092216
	Plastic	250 mL	N	—		GW23-092316 >50 NTU
	Amber	1 L	N	—		GW23 092216
	Amber	1 L	N	—		GW23 092216

Remarks: Water is Yellow tinged w/ no noticable odor. New Bailer, Self lowered on bottom of well.

ch2m

Project Name Honeywell - Outer Harbor Buffalo
Job Number
Field Team M Stout B Macera
Field Conditions

Sampling Event
Date 09/22/2016
Page ___ of ___

Well/Sample Number GW-22
Initial Depth to Water 12.66
Start Time 10:10 Finish Time
Measure Point: PVC Steel Casing Other:

Purge Method:
Geopump Ded. Pump (Other)
Sample Method: Bailer

Sample ID GW-22-092216 Sample Time
Duplicate Sample ID Dupl. Time
Split Sample ID Split. Time

Depth to Botton (from meas. pt): 18.66 Min. Purge Volume (gal)/(L) 3 GAL Purge Rate (gpm)/(mLpm)
Water Quality Parameter Measurment Technique: flow-thru cell in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
10:10	Methane Sniffer GEM Readings							
	Cthy .0% CO_2 1.8% O_2 17.2% Bal 81.2%						LEL CHy .0%	
10:15	Began purging 3 gals							
10:25	Parameter Reading w/ horiba							
		7.97	2.85	955	1805	16.38	-94	
	Samples taken GW-22-092216							
	Not Enough Water							

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
	Plastic	250mL	N	HNO_3		GW 22 - 092216
	plastic	250mL	N	NONE		GW 22 - 092216 *NTU > 50
	Amber	1 liter	N	NONE		GW 22 - 092216

Remarks: Water is cloudy w/ no aparent odor, Well dry @ * 4.2gal

ch2m:

Project Name Honeywell - Outer Harbor Buffalo
Job Number
Field Team M Stout B Macera
Field Conditions

Sampling Event
Date 09/22/2016
Page ___ of ___

Well/Sample Number GW-21
Initial Depth to Water 9.4
Start Time 11:20 Finish Time
Measure Point: PVC Steel Casing Other:

Purge Method:
Geopump Ded. Pump (Other) ___
Sample Method: Bailer

Sample ID GW-21-092216 Sample Time 11:40
Duplicate Sample ID Dupl. Time
Split Sample ID Split. Time

Depth to Botton (from meas. pt): 19.3 Min. Purge Volume (gal)/(L) 5 GAL Purge Rate (gpm)/(mLpm)
Water Quality Parameter Measurment Technique: flow-thru cell in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
11:20	Methane Sniffer GEM Parameters							
	Cthy 0.00%	CO_2 0.3%	O_2 : 19.8%	BHL		80.3%	LEL Cthy 000%	
11:25	Started Purging well							
	Purged 5 Gal							
11:35	Record Horiba Parameters							
	5.0	11.1	.324	16 +	4.3	17.37	-230	
11:40	Samples taken GW-21-092216							

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
	Plastic	250mL	N	HNO_3		GW-21-092216
	Amber	1 L	N	—		GW-21-092216
	Amber	1 L	N	—		GW-21-092216

NTU 450

Remarks: Clear water - Slight organic odor - New Bailer

ch2m

Project Name Honeywell Outer Harbor Buffalo
Job Number
Field Team
Field Conditions

Sampling Event
Date 9/22/2016
Page 1 of

Well/Sample Number ~~GW-19~~ GW-20
Initial Depth to Water 14.6
Start Time 0755 Finish Time
Measure Point: PVC Steel Casing Other:

Purge Method:
Geopump Ded. Pump Other
Sample Method: Bailer

Sample ID ~~GW-19-092216~~
Duplicate Sample ID GW-20-092216
Split Sample ID
Sample Time
Dupl. Time
Split. Time

Depth to Botton (from meas. pt): 19 Min. Purge Volume (gal)/(L) 1.5 Purge Rate (gpm)/(mLpm)
Water Quality Parameter Measurment Technique: flow-thru cell in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
~~12~~								
07:50	Started purging well via Bailer.							
0800	1.5 - Horiba parameters	9.02	.979	60.1	4.18	13.67	-180	
0850	- Collect Sample GW-20-092216							
0900	- Collect Sample GW-20-092216-MS							
0910	- Collect Sample GW-20-092216-MSD							
0920	- Collect Sample GW-20-092216-DUP							
CH_4	.2%							
CO_2	.1%							
O_2	19.9%							
BAL	79.9%							
LEL CH_4	004%							
NTU	>50							

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
	Plastic	250mL	N	HNO_3		GW-20-092216
	Amber	1L	N			GW-20-092216
	Plastic	250mL	N	HNO_3		GW 20-092216-MS
	amber	1L	N			GW 20-092216-MS
	Plastic	250mL	N	HNO_3		GW 20-092216-MSD
	Amber	1L	N			GW 20-092216-MSD
	Plastic	250mL	N	HNO_3		GW20-092216-FDUP
	Ambers	1L	N			GW20 092216-FDUP

Remarks: Purged 1.5 Gallons of water. ~~Some~~ No aparent odor. Yellow tinged water. Equip. decanned per current standards

ch2m:

Project Name HoneyWell Buffalo Outer Harbor
Job Number
Field Team M Stout B Macera
Field Conditions

Sampling Event
Date 09/22/2016
Page ___ of ___

Well/Sample Number GW-19
Initial Depth to Water 13.4
Start Time 10:58 Finish Time
Measure Point: PVC Steel Casing Other:

Purge Method:
Geopump Ded. Pump (Other)
Sample Method: Bailer

Sample ID GW-19-092216 Sample Time 11:10
Duplicate Sample ID Dupl. Time
Split Sample ID Split. Time

Depth to Botton (from meas. pt): 19.1 Min. Purge Volume (gal)/(L) 2.8 Purge Rate (gpm)/(mLpm)
Water Quality Parameter Measurment Technique: flow-thru cell in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
11:00	GEM Reading taken							
	CH_4 0.0% CO_2 0.0%				O_2 20.0%	BAL 80.0%		
LEL	CH_4 000%							
11:01	Started Purging well via Bailer							
	Purged 2.8 gal							
11:06	Recording Horiba parameters							
		11.2	2.24	38	3.4	15.72	-33	13.4
11:10	Started to collect Sample GW-19-092216							

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
	Amber	1L	N	—		GW-19-092216
	Amber	1L	N	—		GW-19-092216
Not Needed →	Plastic	250mL	N	—		~~GW-19-092216~~ ~~NTU>50~~
	Plastic	250mL	N	HNO_3		GW-19-092216

Remarks: Water initially clear, no obvious oder. New Bailer.

ch2m:

Project Name Honeywell - Outer Harbor Buffalo
Job Number
Field Team M Starr / B Macera
Field Conditions

Sampling Event
Date 09/22/2016
Page ___ of ___

Well/Sample Number GW-18R
Start Time 0930 Finish Time
Initial Depth to Water 11.7 Measure Point: PVC Steel Casing Other:

Purge Method:
Geopump Ded. Pump (Other)
Sample Method: Bailer

Sample ID GW 18R 092216 Sample Time 09:50
Duplicate Sample ID Dupl. Time
Split Sample ID Split. Time

Depth to Botton (from meas. pt): 20.6 Min. Purge Volume (gal)/(L) 4.5 Purge Rate (gpm)/(mLpm)
Water Quality Parameter Measurment Technique: (flow-thru cell) in-situ open container

Time	Vol. Purged gallons / liters	pH (+/-0.1)	Conductivity mS/cm (+/-3%)	Turbidity NTU (+/-10% if >10NTU)	Diss. Oxygen mg/L (+/-10%)	Temp. °C (+/-3%)	Eh / ORP mv +/-10 mV	DTW ft
09:30	- GEM Reading CH4: 0% CO_2: 1% O_2 20.5% BAL 79.4% LEL CH4 000%							
09:35	Started Bailing / Purging well well dry @ 3 gal							
09:43	Collect Horiba parameters after 3.5 gal purged. 3 GAL	8.45	1.65	*	4.16	15.7	-50	11.7
	* = TSS too high - can't take reading							
09:50	Collect Sample GW-18R-092216							
	- Well dry after 1 Amber 1 250mL preserved 1 250mL unpreserved							

SAMPLE COLLECTION INFORMATION

Parameter	Type of Bottle	Volume	Field Filtered (y/n)	Preservative	pH	Notes
	Plastic	250mL	N	HNO_3		GW 18R 092216
(2)	Amber Plastic	1 liter	N	—		GW 18R 092216
		250mL	N	—		GW 18R 092216 >50 NTU

Remarks: Water is cloudy w/ no odor noticable. New bailer. Bottom of well silt filled

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Mike Stout	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-86478-9995.1
Client Contact: Mr. John Formoza	Phone: 315 468 1663	E-Mail: john.schove@testamericainc.com		Page: Page 1 of 1
Company: CH2M Hill, Inc.				Job #:
Address: 1563 Willis Avenue	Due Date Requested:			
City: Syracuse	TAT Requested (days):			
State, Zip: NY, 13204				
Phone: 973-455-4682(Tel)	PO #: ~~4500073922~~ 4400032722			
Email: john.formoza@ch2m.com	WO #: 37971 - Buffalo			
Project Name: Honeywell - Buffalo Outer Harbor - 37971 Event Desc: 37971 - Bu	Project #: 48008270			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 7470A	8270C_LL - 8270LL - Nitrobenzene	6010B, 7470A - Dissolved (Lab filtered)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	D	N	N	X	
GW-20 MS 092216	09/22/16	0900	G	Water	N		1	2		3	
GW-20 MSD 092216	09/22/16	0910	G	Water	N		1	2		3	
FDUP- GW-20-092216	09/22/16	0920	G	Water	N		1	2		3	
GW-18R- 092216	09/22/16	0950	G	Water	N		1	2	1	4	Need to be filtered @ Lab unpreserved NTU > 50
GW-19- 092216	09/22/16	11:10	G	Water	N		1	2		3	
GW-20- 092216	09/22/16	0850	G	Water	N		1	2	1	4	Need to be filtered @ Lab unpreserved NTU >50
GW-21- 092216	09/22/16	11:40	G	Water	N		1	2		3	
~~GW-22- 092216~~	~~09/22/16~~		~~G~~	~~Water~~	~~N~~						
GW-23- 092216	09/22/16	1050	G	Water	N		1	2	1	4	Need to be filtered @ lab unpreserved NTU 550
EQBLK-			G	Water	N						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by: Bethany Macera	09/22/2016 @ 12:23	CTEH	Received by:	9/22/16 1223	TABuff
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Attachment B.5 Data Validation Summary Report

DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2016 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

1.0 INTRODUCTION

Data validation was completed on groundwater samples collected by Amec Foster Wheeler in September 2016. Samples were analyzed by Test America Laboratories in Buffalo, New York (TAL-BUF) and reported in sample delivery group (SDG) 480-106388-1. A summary of samples included in this report is presented on Table 1. Samples were analyzed by one or more of the following U.S. Environmental Protection (USEPA) SW-846 (USEPA, 1996) analytical methods were performed:

- Nitrobenzene by USEPA Method SW8270D LL.
- Total and dissolved metals by USEPA Method SW6010C and SW7470A.

Data validation was completed using Level II procedures described for Honeywell projects. Level II data quality reviews are completed using laboratory QC summary forms. A summary of QC limits used during data validation is included on Table 2. Data qualifications were completed using the professional judgment of the validation chemist and general procedures specified in USEPA national data validation guidelines (USEPA, 1999; USEPA, 2004).

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
- QC Blanks
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)
- Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- Surrogate Spikes
- Field and Laboratory Duplicates
- Reporting Limits
- Electronic Data Verification

Data qualifications were 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 detection 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

Results were entered into the Honeywell Locus Technology Environmental Information Management (EIM) database. The EIM system has a computerized data validation module that

performs data validation for QC checks specified by Honeywell for Level II validation. Sample results are qualified using project specific QC limits and actions that are set up prior to running the validation module. The EIM system assigns validation reason codes to all results that are qualified. The data validation actions and qualifiers are reviewed and approved by the project chemist prior to finalizing data. The Level II EIM validation qualification actions 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
FD = Field duplicate exceeds RPD criteria
TD=Total concentration less than dissolved concentration

Result for non-detects were reported by the laboratory as U qualified results at the method detection limit (MDL). Target analyte results detected at concentrations between the method detection limit (MDL) and Method reporting limits (MRLs) were reported as J qualified estimated values by the laboratory.

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 in Table 4. A field duplicate summary is provided in Table 5.

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 SVOC - Nitrobenzene

Data were evaluated based on the following parameters:

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

* Criteria were met for this parameter

<u>Reporting Limits</u>

Samples GW-18R-092216, GW-19-092216, GW-21-092216 and GW-22-092616 were analyzed at dilutions due to the nature of the sample matrix and nitrobenzene reporting limits were elevated.

2.2 Metals

Data were evaluated based on the following parameters:

* Collection and Preservation
* Holding Times
* Data Completeness
  Blank Contamination
* LCS
* MS/MSD
  Field Duplicates
  Total and Dissolved metals check
* Reporting Limits

* - Criteria were met for this parameter

QC Blanks

Method blank contamination observed for dissolved zinc (0.00233 mg/L). An action level was established at five times the blank concentration. The dissolved zinc detection in samples GW-18R-092216, GW-20-092216 and GW-23-092216 were less than the action level and were qualified as not detected (U) with reason code BL1, at the detected concentration.

Field Duplicates

In general, field duplicate results indicate that good sampling and analytical precision was obtained in the groundwater media. Some results are qualified for not meeting project precision goals. A summary of qualified sample results is presented on Table 3. Field duplicate results are summarized on Table 5.

For the field duplicate pair GW-20-092216 and FDUP-GW-20-092216 the RPD of barium (34), calcium (55), magnesium (61), manganese (55) and vanadium (22) exceeded the QC limit of 20. The associated result in sample set GW-20-092216 and FDUP-GW-20-092216 were qualified as estimated (J) with reason code FD.

Total and Dissolved Metals Concentration

The dissolved metals concentration was greater than total metals concentration with a RPD greater than 25 percent. The RPD of total and dissolved manganese concentration for manganese was 35 in sample GW-20-092216. Total and dissolved manganese results were qualified as estimated (J) with reason code TD.

References:

U.S. Environmental Protection Agency (USEPA), 1996. "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), 1999. "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review"; Office of Emergency and Remedial Response; EPA-540/R-99/008; October 1999.

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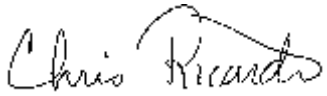
Data Validator: Lakshmi Devi

October 21, 2016

Senior Chemist: Chris Ricardi, NRCC-EAC



October 25, 2016

TABLE 1
SAMPLE AND ANALYTICAL SUMMARY
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2016 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

				Purpose	Nitrobenzene	Metals		Mercury	
				Method	SW8270D LL	SW6010C		SW7470A	
						Total	Dissolved	Total	Dissolved
Field Sample ID	Location ID	SDG	Type	Date					
GW-18R-092216	GW-18R	480-106388-1	REG	9/22/2016	1	22	22	1	1
GW-19-092216	GW-19	480-106388-1	REG	9/22/2016	1	22		1	
GW-20-092216	GW-20	480-106388-1	REG	9/22/2016	1	22	22	1	1
FDUP-GW-20-092216	GW-20	480-106388-1	FD	9/22/2016	1	22		1	
GW-21-092216	GW-21	480-106388-1	REG	9/22/2016	1	22		1	
GW-22-092616	GW-22	480-106388-1	REG	9/26/2016	1	22	22	1	1
GW-23-092216	GW-23	480-106388-1	REG	9/22/2016	1	22	22	1	1

Notes:
FD = Field Duplicate
REG = Field Sample
SDG = Sample Delivery Group

Prepared by:Lakshmi Devi 10/21/2016
Checked by:Suresh 10/21/2016

TABLE 2
PROJECT PRECISION AND ACCURACYGOALS
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2016 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

PARAMETER	QC TEST	ANALYTE	WATER (%R)	WATER (RPD)
Semivolatiles	Surrogate	All BN Compounds	50 - 140	
	LCS	All BN Compounds	50 - 140	
	MS/MSD	All BN Compounds	50 - 140	20
	Field Duplicate	All Target Compounds		50
Inorganics-Metals	LCS	All Target Analytes	80 - 120	
	MS/MSD	All Target Analytes	75 -125	
	Lab Duplicate	All Target Analytes		20
	Field Duplicate	All Target Analytes		20

Notes:
LCS - Laboratory Control Sample
MS/MSD - Matrix spike/ Matrix Spike Duplicate
RPD = Relative Percent Difference
%R = Percent Recovery
QC = Quality Control
QC Limits are based on USEPA Region II Data Validation Guidelines and Project QA/QC Objectives

TABLE 3
VALIDATON ACTIONS SUMMARY
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2016 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

Field Sample ID	Type	SDG	Method	Parameter	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
GW-18R-092216	REG	480-106388-1	SW6010	Zinc, Dissolved	0.0094	J,B	U	BL1	mg/L
GW-20-092216	REG	480-106388-1	SW6010	Zinc, Dissolved	0.0038	J,B	U	BL1	mg/L
GW-23-092216	REG	480-106388-1	SW6010	Zinc, Dissolved	0.010	B	U	BL1	mg/L
GW-20-092216	REG	480-106388-1	SW6010	Barium	0.038		J	FD	mg/L
FDUP-GW-20-092216	FD	480-106388-1	SW6010	Barium	0.027		J	FD	mg/L
GW-20-092216	REG	480-106388-1	SW6010	Calcium	47.9		J	FD	mg/L
FDUP-GW-20-092216	FD	480-106388-1	SW6010	Calcium	27.3		J	FD	mg/L
GW-20-092216	REG	480-106388-1	SW6010	Magnesium	4.7		J	FD	mg/L
FDUP-GW-20-092216	FD	480-106388-1	SW6010	Magnesium	2.5	^	J	FD	mg/L
GW-20-092216	REG	480-106388-1	SW6010	Manganese, Dissolved	0.13	B	J	TD	mg/L
GW-20-092216	REG	480-106388-1	SW6010	Manganese	0.091		J	FD,TD	mg/L
FDUP-GW-20-092216	FD	480-106388-1	SW6010	Manganese	0.052		J	FD	mg/L
GW-20-092216	REG	480-106388-1	SW6010	Vanadium	0.012		J	FD	mg/L
FDUP-GW-20-092216	FD	480-106388-1	SW6010	Vanadium	0.015		J	FD	mg/L

Notes:
BL1= Result qualified due to laboratory blank
FD= Field duplicate exceeds RPD criteria
TD= Total concentration less than dissolved concentration
U= Undetected
J= Estimated

Prepared by:Lakshmi Devi 10/21/2016
Checked by:Suresh 10/21/2016

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2016 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

Units	Method	Field Sample ID / Location / Sample Date / Sample Delivery Group / Parameter Name	GW-18R-092216 GW-18R 09/22/2016 480-106388-1	GW-19-092216 GW-19 09/22/2016 480-106388-1	GW-20-092216 GW-20 09/22/2016 480-106388-1	FDUP-GW-20-092216 GW-20 09/22/2016 480-106388-1	GW-21-092216 GW-21 09/22/2016 480-106388-1
µg/L	SW8270	Nitrobenzene	0.61 U	0.31 U	0.061 U	0.062 U	0.31 U
mg/L	SW6010	Aluminum	161	1.1	0.22	0.21	0.060 U
mg/L	SW6010	Aluminum, Dissolved	0.060 U		0.060 U		
mg/L	SW6010	Antimony	0.018 J	0.0068 U	0.0068 U	0.0068 U	0.0068 U
mg/L	SW6010	Antimony, Dissolved	0.0068 U		0.0068 U		
mg/L	SW6010	Arsenic	0.41	0.021	0.0064 J	0.0079 J	0.0062 J
mg/L	SW6010	Arsenic, Dissolved	0.015		0.0095 J		
mg/L	SW6010	Barium	1.5	0.020	0.038 J	0.027 J	0.032
mg/L	SW6010	Barium, Dissolved	0.14		0.040		
mg/L	SW6010	Beryllium	0.010	0.00030 U	0.00030 U	0.00030 U	0.00030 U
mg/L	SW6010	Beryllium, Dissolved	0.00030 U		0.00088 J		
mg/L	SW6010	Cadmium	0.014	0.00058 J	0.00050 U	0.00050 U	0.00050 U
mg/L	SW6010	Cadmium, Dissolved	0.00050 U		0.00086 J		
mg/L	SW6010	Calcium	934	59.9	47.9 J	27.3 J	31.8
mg/L	SW6010	Calcium, Dissolved	257		52.8		
mg/L	SW6010	Chromium	0.38	0.0044	0.0010 U	0.0010 U	0.0010 U
mg/L	SW6010	Chromium, Dissolved	0.0010 U		0.0010 U		
mg/L	SW6010	Cobalt	0.15	0.00063 U	0.00063 U	0.00063 U	0.00063 U
mg/L	SW6010	Cobalt, Dissolved	0.00093 J		0.00063 U		
mg/L	SW6010	Copper	0.55	0.052	0.0016 J	0.0019 J	0.0016 U
mg/L	SW6010	Copper, Dissolved	0.0016 U		0.0016 U		
mg/L	SW6010	Iron	251	0.58	0.26	0.28	0.75
mg/L	SW6010	Iron, Dissolved	0.019 U		0.062		
mg/L	SW6010	Lead	2.2	0.023	0.0043 J	0.0050 J	0.0030 U
mg/L	SW6010	Lead, Dissolved	0.0030 U		0.0030 U		
mg/L	SW6010	Magnesium	234	0.74	4.7 J	2.5 J	5.7

Prepared by:Lakshmi Devi 10/21/2016
Checked by:Suresh 10/21/2016

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2016 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

Units	Method	Field Sample ID / Location / Sample Date / Sample Delivery Group / Parameter Name	GW-18R-092216 GW-18R 09/22/2016 480-106388-1	GW-19-092216 GW-19 09/22/2016 480-106388-1	GW-20-092216 GW-20 09/22/2016 480-106388-1	FDUP-GW-20-092216 GW-20 09/22/2016 480-106388-1	GW-21-092216 GW-21 09/22/2016 480-106388-1
mg/L	SW6010	Magnesium, Dissolved	47.6		5.8		
mg/L	SW6010	Manganese	8.6	0.0082	0.091 J	0.052 J	0.0094
mg/L	SW6010	Manganese, Dissolved	0.42		0.13 J		
mg/L	SW6010	Nickel	0.38	0.0062 J	0.0015 J	0.0013 U	0.0013 U
mg/L	SW6010	Nickel, Dissolved	0.0051 J		0.0013 U		
mg/L	SW6010	Potassium	58.8	421	139	135	16.4
mg/L	SW6010	Potassium, Dissolved	35.3		137		
mg/L	SW6010	Selenium	0.11	0.013 J	0.0087 U	0.0087 U	0.0087 U
mg/L	SW6010	Selenium, Dissolved	0.0087 U		0.0087 U		
mg/L	SW6010	Silver	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U
mg/L	SW6010	Silver, Dissolved	0.0017 U		0.0017 U		
mg/L	SW6010	Sodium	16.5	32.8	42.9	47.0	12.0
mg/L	SW6010	Sodium, Dissolved	18.2		38.9		
mg/L	SW6010	Thallium	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
mg/L	SW6010	Thallium, Dissolved	0.010 U		0.010 U		
mg/L	SW6010	Vanadium	0.39	0.035	0.012 J	0.015 J	0.0027 J
mg/L	SW6010	Vanadium, Dissolved	0.0055		0.0093		
mg/L	SW6010	Zinc	9.5	0.0099 J	0.0070 J	0.0093 J	0.0083 J
mg/L	SW6010	Zinc, Dissolved	0.0094 U		0.0038 U		
mg/L	SW7470	Mercury	0.012	0.00063	0.00012 U	0.00012 U	0.00012 U
mg/L	SW7470	Mercury, Dissolved	0.00012 U		0.00012 U		

Notes:
U = Undetected
J = Estimated

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2016 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

		Field Sample ID	GW-22-092616	GW-23-092216
		Location	GW-22	GW-23
		Sample Date	09/26/2016	09/22/2016
		Sample Delivery Group	480-106388-1	480-106388-1
Units	Method	Parameter Name		
µg/L	SW8270	Nitrobenzene	0.31 U	0.061 U
mg/L	SW6010	Aluminum	2.7	1.0
mg/L	SW6010	Aluminum, Dissolved	0.060 U	0.060 U
mg/L	SW6010	Antimony	0.0095 J	0.053
mg/L	SW6010	Antimony, Dissolved	0.0068 U	0.0068 U
mg/L	SW6010	Arsenic	0.010 J	0.039
mg/L	SW6010	Arsenic, Dissolved	0.0056 U	0.0056 U
mg/L	SW6010	Barium	0.054	0.18
mg/L	SW6010	Barium, Dissolved	0.036	0.12
mg/L	SW6010	Beryllium	0.00030 U	0.00030 U
mg/L	SW6010	Beryllium, Dissolved	0.00030 U	0.00030 U
mg/L	SW6010	Cadmium	0.00085 J	0.0012 J
mg/L	SW6010	Cadmium, Dissolved	0.00050 U	0.00050 U
mg/L	SW6010	Calcium	363	245
mg/L	SW6010	Calcium, Dissolved	356	239
mg/L	SW6010	Chromium	0.0069	0.0085
mg/L	SW6010	Chromium, Dissolved	0.0010 U	0.0010 U
mg/L	SW6010	Cobalt	0.0036 J	0.0013 J
mg/L	SW6010	Cobalt, Dissolved	0.0025 J	0.00063 U
mg/L	SW6010	Copper	0.032	0.22
mg/L	SW6010	Copper, Dissolved	0.011	0.0016 U
mg/L	SW6010	Iron	10.6	25.3
mg/L	SW6010	Iron, Dissolved	0.019 U	0.019 U
mg/L	SW6010	Lead	0.030	0.86
mg/L	SW6010	Lead, Dissolved	0.0030 U	0.0030 U
mg/L	SW6010	Magnesium	179	53.2

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2016 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

		Field Sample ID	GW-22-092616	GW-23-092216
		Location	GW-22	GW-23
		Sample Date	09/26/2016	09/22/2016
		Sample Delivery Group	480-106388-1	480-106388-1
Units	Method	Parameter Name		
mg/L	SW6010	Magnesium, Dissolved	179	52.9
mg/L	SW6010	Manganese	1.4	0.57
mg/L	SW6010	Manganese, Dissolved	1.2	0.47
mg/L	SW6010	Nickel	0.015	0.0064 J
mg/L	SW6010	Nickel, Dissolved	0.015	0.0031 J
mg/L	SW6010	Potassium	44.8	50.9
mg/L	SW6010	Potassium, Dissolved	44.6	53.4
mg/L	SW6010	Selenium	0.0087 U	0.011 J
mg/L	SW6010	Selenium, Dissolved	0.0087 U	0.0087 U
mg/L	SW6010	Silver	0.0020 J	0.0017 U
mg/L	SW6010	Silver, Dissolved	0.0017 U	0.0017 U
mg/L	SW6010	Sodium	72.9	20.6
mg/L	SW6010	Sodium, Dissolved	75.5	21.9
mg/L	SW6010	Thallium	0.010 U	0.010 U
mg/L	SW6010	Thallium, Dissolved	0.010 U	0.010 U
mg/L	SW6010	Vanadium	0.0047 J	0.020
mg/L	SW6010	Vanadium, Dissolved	0.0015 U	0.0015 U
mg/L	SW6010	Zinc	0.14	0.11
mg/L	SW6010	Zinc, Dissolved	0.13	0.010 U
mg/L	SW7470	Mercury	0.00012 U	0.00057
mg/L	SW7470	Mercury, Dissolved	0.00012 U	0.00012 U

Notes:
U = Undetected
J = Estimated

Prepared by:Lakshmi Devi 10/21/2016
Checked by:Suresh 10/21/2016

TABLE 5
FIELD DUPLICATE RESULT COMPARISON
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2016 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

Method	Units	Paramerter	GW-20-092216	FDUP-GW-20-092216	RPD	RL	5x RL	both results >5x RL	both results <5x RL within +/- RL	pass/fail
SW6010	mg/L	Aluminum	0.22	0.21	5	0.2	1	No	Yes	Pass
SW6010	mg/L	Antimony	0.0068	0.0068	NA	0.02	0.1	NA	NA	Pass
SW6010	mg/L	Arsenic	0.0064	0.0079	NA	0.015	0.075	NA	NA	Pass
SW6010	mg/L	Barium	0.038	0.027	34	0.002	0.01	Yes	No	Fail
SW6010	mg/L	Beryllium	0.0003	0.0003	NA	0.002	0.01	NA	NA	Pass
SW6010	mg/L	Cadmium	0.0005	0.0005	NA	0.002	0.01	NA	NA	Pass
SW6010	mg/L	Calcium	47.9	27.3	55	0.5	2.5	Yes	No	Fail
SW6010	mg/L	Chromium	0.001	0.001	NA	0.004	0.02	NA	NA	Pass
SW6010	mg/L	Cobalt	0.00063	0.00063	NA	0.004	0.02	NA	NA	Pass
SW6010	mg/L	Copper	0.0016	0.0019	NA	0.01	0.05	NA	NA	Pass
SW6010	mg/L	Iron	0.26	0.28	7	0.05	0.25	Yes	No	Pass
SW6010	mg/L	Lead	0.0043	0.005	NA	0.01	0.05	NA	NA	Pass
SW6010	mg/L	Magnesium	4.7	2.5	61	0.2	1	Yes	No	Fail
SW6010	mg/L	Manganese	0.091	0.052	55	0.003	0.015	Yes	No	Fail
SW6010	mg/L	Nickel	0.0015	0.0013	NA	0.01	0.05	NA	NA	Pass
SW6010	mg/L	Potassium	139	135	3	0.5	2.5	Yes	No	Pass
SW6010	mg/L	Selenium	0.0087	0.0087	NA	0.025	0.125	NA	NA	Pass
SW6010	mg/L	Silver	0.0017	0.0017	NA	0.006	0.03	NA	NA	Pass
SW6010	mg/L	Sodium	42.9	47	9	1	5	Yes	No	Pass
SW6010	mg/L	Thallium	0.01	0.01	NA	0.02	0.1	NA	NA	Pass
SW6010	mg/L	Vanadium	0.012	0.015	-22	0.005	0.025	No	Yes	Fail
SW6010	mg/L	Zinc	0.007	0.0093	NA	0.01	0.05	NA	NA	Pass
SW7470	mg/L	Mercury	0.00012	0.00012	NA	0.0002	0.001	NA	NA	Pass
SW8270	ug/L	Nitrobenzene	0.061	0.062	NA	0.47	2.35	NA	NA	Pass

Notes:
NA = Not Applicable
ND = Not Detected
RL = Reporting Limit
RPD = Relative Percent Difference

Prepared by:Lakshmi Devi 10/21/2016
Checked by:Suresh 10/21/2016

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: 480-106388-1
TestAmerica Sample Delivery Group: 106388
Client Project/Site: 37971 - Buffalo Outer Harbor
Sampling Event: 37971 - Buffalo Outer Harbor

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

Attn: Mr. Rich Galloway

Authorized for release by:
10/11/2016 10:52:37 AM
Rebecca Jones, Project Management Assistant I
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Designee for

John Schove, Project Manager II
(716)504-9838
john.schove@testamericainc.com

Table of Contents

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside 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.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
B	Compound was found in the blank and sample.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Job ID: 480-106388-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-106388-1

Comments
No additional comments.

Receipt
The samples were received on 9/22/2016 12:23 PM and 9/26/2016 12:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.3º C, 3.6º C and 4.4º C.

GC/MS Semi VOA
Method(s) 8270D LL: Six surrogates are used for this analysis. The laboratory's SOP allows two of these surrogates to be outside acceptance criteria without performing re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: GW-18R-092216 (480-106388-2). These results have been reported and qualified.

Method(s) 8270D LL: The following samples were diluted due to the nature of the sample matrix: GW-18R-092216 (480-106388-2), GW-19-092216 (480-106388-3) and GW-21-092216 (480-106388-5). Elevated reporting limits (RLs) are provided.

Method(s) 8270D LL: The following sample was diluted due to the nature of the sample matrix: GW-22-092616 (480-106542-1). 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) 6010C: The continuing calibration blank (CCB 480-322154/13) for analytical batch 480-322154 contained Total Magnesium above the reporting limit (RL). All reported samples, FDUP-GW-20-092216 (480-106388-1), GW-18R-092216 (480-106388-2), (LCS 480-321920/2-A) and (MB 480-321920/1-A), associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method(s) 6010C: The low level continuing calibration verification (CCVL 322154/21) for analytical batch 480-322154 recovered above the upper control limit for Total Iron. The samples associated with this CCVL were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCVL; therefore, re-analysis of samples GW-18R-092216 (480-106388-2), GW-23-092216 (480-106388-6), (LCS 480-321920/2-A) and (MB 480-321920/1-A) was not performed.

Method(s) 6010C: The post digestion spike % recovery for Dissolved Aluminum, Barium, Potassium, Magnesium, and Sodium associated with batch 480-322577 was outside of control limits. However, the Serial Dilution was compliant, therefore, no corrective action was necessary.

Method(s) 6010C: The low level continuing calibration verification (CCVL 480-322737/14) associated with batch 480-322737 recovered above the upper control limit for Total Selenium. The sample associated with this CCVL, (MB 480-322538/1-A), was non-detect for the affected analyte; therefore, the data have been reported.

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

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

Detection Summary

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-106388-1
SDG: 106388

Client Sample ID: FDUP-GW-20-092216 — Lab Sample ID: 480-106388-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.21		0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.0079	J	0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.027		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	27.3		0.50	0.10	mg/L	1		6010C	Total/NA
Copper	0.0019	J	0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	0.28		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.0050	J	0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	2.5	^	0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.052		0.0030	0.00040	mg/L	1		6010C	Total/NA
Potassium	135		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	47.0		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.015		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.0093	J	0.010	0.0015	mg/L	1		6010C	Total/NA

Client Sample ID: GW-18R-092216 — Lab Sample ID: 480-106388-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	161		0.20	0.060	mg/L	1		6010C	Total/NA
Antimony	0.018	J	0.020	0.0068	mg/L	1		6010C	Total/NA
Arsenic	0.41		0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	1.5		0.0020	0.00070	mg/L	1		6010C	Total/NA
Beryllium	0.010		0.0020	0.00030	mg/L	1		6010C	Total/NA
Cadmium	0.014		0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	934		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.38		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.15		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.55		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	251	^	0.050	0.019	mg/L	1		6010C	Total/NA
Lead	2.2		0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	234	^	0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	8.6		0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.38		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	58.8		0.50	0.10	mg/L	1		6010C	Total/NA
Selenium	0.11		0.025	0.0087	mg/L	1		6010C	Total/NA
Sodium	16.5		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.39		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	9.5		0.010	0.0015	mg/L	1		6010C	Total/NA
Arsenic, Dissolved	0.015		0.015	0.0056	mg/L	1		6010C	Dissolved
Barium, Dissolved	0.14		0.0020	0.00070	mg/L	1		6010C	Dissolved
Calcium, Dissolved	257		0.50	0.10	mg/L	1		6010C	Dissolved
Cobalt, Dissolved	0.00093	J	0.0040	0.00063	mg/L	1		6010C	Dissolved
Magnesium, Dissolved	47.6		0.20	0.043	mg/L	1		6010C	Dissolved
Manganese, Dissolved	0.42	B	0.0030	0.00040	mg/L	1		6010C	Dissolved
Nickel, Dissolved	0.0051	J	0.010	0.0013	mg/L	1		6010C	Dissolved
Potassium, Dissolved	35.3		0.50	0.10	mg/L	1		6010C	Dissolved
Sodium, Dissolved	18.2	B	1.0	0.32	mg/L	1		6010C	Dissolved
Vanadium, Dissolved	0.0055		0.0050	0.0015	mg/L	1		6010C	Dissolved
Zinc, Dissolved	0.0094	J B	0.010	0.0015	mg/L	1		6010C	Dissolved
Mercury	0.012		0.00020	0.00012	mg/L	1		7470A	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-106388-1
SDG: 106388

Client Sample ID: GW-19-092216 — Lab Sample ID: 480-106388-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	1.1		0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.021		0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.020		0.0020	0.00070	mg/L	1		6010C	Total/NA
Cadmium	0.00058	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	59.9		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.0044		0.0040	0.0010	mg/L	1		6010C	Total/NA
Copper	0.052		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	0.58		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.023		0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	0.74		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.0082		0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.0062	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	421		0.50	0.10	mg/L	1		6010C	Total/NA
Selenium	0.013	J	0.025	0.0087	mg/L	1		6010C	Total/NA
Sodium	32.8		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.035		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.0099	J	0.010	0.0015	mg/L	1		6010C	Total/NA
Mercury	0.00063		0.00020	0.00012	mg/L	1		7470A	Total/NA

Client Sample ID: GW-20-092216 — Lab Sample ID: 480-106388-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.22		0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.0064	J	0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.038		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	47.9		0.50	0.10	mg/L	1		6010C	Total/NA
Copper	0.0016	J	0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	0.26		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.0043	J	0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	4.7		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.091		0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.0015	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	139		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	42.9		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.012		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.0070	J	0.010	0.0015	mg/L	1		6010C	Total/NA
Arsenic, Dissolved	0.0095	J	0.015	0.0056	mg/L	1		6010C	Dissolved
Barium, Dissolved	0.040		0.0020	0.00070	mg/L	1		6010C	Dissolved
Beryllium, Dissolved	0.00088	J	0.0020	0.00030	mg/L	1		6010C	Dissolved
Cadmium, Dissolved	0.00086	J	0.0020	0.00050	mg/L	1		6010C	Dissolved
Calcium, Dissolved	52.8		0.50	0.10	mg/L	1		6010C	Dissolved
Iron, Dissolved	0.062		0.050	0.019	mg/L	1		6010C	Dissolved
Magnesium, Dissolved	5.8		0.20	0.043	mg/L	1		6010C	Dissolved
Manganese, Dissolved	0.13	B	0.0030	0.00040	mg/L	1		6010C	Dissolved
Potassium, Dissolved	137		0.50	0.10	mg/L	1		6010C	Dissolved
Sodium, Dissolved	38.9	B	1.0	0.32	mg/L	1		6010C	Dissolved
Vanadium, Dissolved	0.0093		0.0050	0.0015	mg/L	1		6010C	Dissolved
Zinc, Dissolved	0.0038	J B	0.010	0.0015	mg/L	1		6010C	Dissolved

Client Sample ID: GW-21-092216 — Lab Sample ID: 480-106388-5

This Detection Summary does not include radiochemical test results.

Client Sample ID: GW-21-092216 (Continued) — Lab Sample ID: 480-106388-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0062	J	0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.032		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	31.8		0.50	0.10	mg/L	1		6010C	Total/NA
Iron	0.75		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	5.7		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.0094		0.0030	0.00040	mg/L	1		6010C	Total/NA
Potassium	16.4		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	12.0		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.0027	J	0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.0083	J	0.010	0.0015	mg/L	1		6010C	Total/NA

Client Sample ID: GW-23-092216 — Lab Sample ID: 480-106388-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	1.0		0.20	0.060	mg/L	1		6010C	Total/NA
Antimony	0.053		0.020	0.0068	mg/L	1		6010C	Total/NA
Arsenic	0.039		0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.18		0.0020	0.00070	mg/L	1		6010C	Total/NA
Cadmium	0.0012	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	245		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.0085		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.0013	J	0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.22		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	25.3	^	0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.86		0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	53.2		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.57		0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.0064	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	50.9		0.50	0.10	mg/L	1		6010C	Total/NA
Selenium	0.011	J	0.025	0.0087	mg/L	1		6010C	Total/NA
Sodium	20.6		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.020		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.11		0.010	0.0015	mg/L	1		6010C	Total/NA
Barium, Dissolved	0.12		0.0020	0.00070	mg/L	1		6010C	Dissolved
Calcium, Dissolved	239		0.50	0.10	mg/L	1		6010C	Dissolved
Magnesium, Dissolved	52.9		0.20	0.043	mg/L	1		6010C	Dissolved
Manganese, Dissolved	0.47	B	0.0030	0.00040	mg/L	1		6010C	Dissolved
Nickel, Dissolved	0.0031	J	0.010	0.0013	mg/L	1		6010C	Dissolved
Potassium, Dissolved	53.4		0.50	0.10	mg/L	1		6010C	Dissolved
Sodium, Dissolved	21.9	B	1.0	0.32	mg/L	1		6010C	Dissolved
Zinc, Dissolved	0.010	B	0.010	0.0015	mg/L	1		6010C	Dissolved
Mercury	0.00057		0.00020	0.00012	mg/L	1		7470A	Total/NA

Client Sample ID: GW-22-092616 — Lab Sample ID: 480-106542-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	2.7		0.20	0.060	mg/L	1		6010C	Total/NA
Antimony	0.0095	J	0.020	0.0068	mg/L	1		6010C	Total/NA
Arsenic	0.010	J	0.015	0.0056	mg/L	1		6010C	Total/NA
Barium	0.054		0.0020	0.00070	mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: GW-22-092616 (Continued)

Lab Sample ID: 480-106542-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.00085	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Calcium	363		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.0069		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.0036	J	0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.032		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	10.6		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.030	B	0.010	0.0030	mg/L	1		6010C	Total/NA
Magnesium	179		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	1.4	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.015		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	44.8		0.50	0.10	mg/L	1		6010C	Total/NA
Silver	0.0020	J	0.0060	0.0017	mg/L	1		6010C	Total/NA
Sodium	72.9		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.0047	J	0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.14		0.010	0.0015	mg/L	1		6010C	Total/NA
Barium, Dissolved	0.036		0.0020	0.00070	mg/L	1		6010C	Dissolved
Calcium, Dissolved	356		0.50	0.10	mg/L	1		6010C	Dissolved
Cobalt, Dissolved	0.0025	J	0.0040	0.00063	mg/L	1		6010C	Dissolved
Copper, Dissolved	0.011		0.010	0.0016	mg/L	1		6010C	Dissolved
Magnesium, Dissolved	179		0.20	0.043	mg/L	1		6010C	Dissolved
Manganese, Dissolved	1.2	B	0.0030	0.00040	mg/L	1		6010C	Dissolved
Nickel, Dissolved	0.015		0.010	0.0013	mg/L	1		6010C	Dissolved
Potassium, Dissolved	44.6		0.50	0.10	mg/L	1		6010C	Dissolved
Sodium, Dissolved	75.5		1.0	0.32	mg/L	1		6010C	Dissolved
Zinc, Dissolved	0.13	B	0.010	0.0015	mg/L	1		6010C	Dissolved

This Detection Summary does not include radiochemical test results.

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-106388-1
SDG: 106388

Client Sample ID: FDUP-GW-20-092216
Date Collected: 09/22/16 09:20
Date Received: 09/22/16 12:23

Lab Sample ID: 480-106388-1
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		0.47	0.062	ug/L		09/24/16 07:09	09/25/16 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*94*		*39 - 146*	*09/24/16 07:09*	*09/25/16 16:42*	*1*
2-Fluorobiphenyl	*79*		*37 - 120*	*09/24/16 07:09*	*09/25/16 16:42*	*1*
2-Fluorophenol (Surr)	*41*		*18 - 120*	*09/24/16 07:09*	*09/25/16 16:42*	*1*
Nitrobenzene-d5 (Surr)	*66*		*34 - 132*	*09/24/16 07:09*	*09/25/16 16:42*	*1*
Phenol-d5 (Surr)	*28*		*11 - 120*	*09/24/16 07:09*	*09/25/16 16:42*	*1*
p-Terphenyl-d14	*77*		*58 - 147*	*09/24/16 07:09*	*09/25/16 16:42*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.21**		0.20	0.060	mg/L		09/23/16 09:00	09/23/16 20:43	1
Antimony	ND		0.020	0.0068	mg/L		09/23/16 09:00	09/23/16 20:43	1
Arsenic	**0.0079**	**J**	0.015	0.0056	mg/L		09/23/16 09:00	09/23/16 20:43	1
Barium	**0.027**		0.0020	0.00070	mg/L		09/23/16 09:00	09/23/16 20:43	1
Beryllium	ND		0.0020	0.00030	mg/L		09/23/16 09:00	09/23/16 20:43	1
Cadmium	ND		0.0020	0.00050	mg/L		09/23/16 09:00	09/23/16 20:43	1
Calcium	**27.3**		0.50	0.10	mg/L		09/23/16 09:00	09/23/16 20:43	1
Chromium	ND		0.0040	0.0010	mg/L		09/23/16 09:00	09/23/16 20:43	1
Cobalt	ND		0.0040	0.00063	mg/L		09/23/16 09:00	09/23/16 20:43	1
Copper	**0.0019**	**J**	0.010	0.0016	mg/L		09/23/16 09:00	09/23/16 20:43	1
Iron	**0.28**		0.050	0.019	mg/L		09/23/16 09:00	09/26/16 14:21	1
Lead	**0.0050**	**J**	0.010	0.0030	mg/L		09/23/16 09:00	09/23/16 20:43	1
Magnesium	**2.5**	**^**	0.20	0.043	mg/L		09/23/16 09:00	09/23/16 20:43	1
Manganese	**0.052**		0.0030	0.00040	mg/L		09/23/16 09:00	09/23/16 20:43	1
Nickel	ND		0.010	0.0013	mg/L		09/23/16 09:00	09/23/16 20:43	1
Potassium	**135**		0.50	0.10	mg/L		09/23/16 09:00	09/23/16 20:43	1
Selenium	ND		0.025	0.0087	mg/L		09/23/16 09:00	09/23/16 20:43	1
Silver	ND		0.0060	0.0017	mg/L		09/23/16 09:00	09/23/16 20:43	1
Sodium	**47.0**		1.0	0.32	mg/L		09/23/16 09:00	09/23/16 20:43	1
Thallium	ND		0.020	0.010	mg/L		09/23/16 09:00	09/23/16 20:43	1
Vanadium	**0.015**		0.0050	0.0015	mg/L		09/23/16 09:00	09/23/16 20:43	1
Zinc	**0.0093**	**J**	0.010	0.0015	mg/L		09/23/16 09:00	09/23/16 20:43	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/23/16 10:45	09/23/16 15:12	1

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-106388-1
SDG: 106388

Client Sample ID: GW-18R-092216

Date Collected: 09/22/16 09:50
Date Received: 09/22/16 12:23

Lab Sample ID: 480-106388-2

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		4.7	0.61	ug/L		09/24/16 07:09	09/25/16 17:11	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*83*		*39 - 146*	*09/24/16 07:09*	*09/25/16 17:11*	*10*
2-Fluorobiphenyl	*72*		*37 - 120*	*09/24/16 07:09*	*09/25/16 17:11*	*10*
2-Fluorophenol (Surr)	*50*		*18 - 120*	*09/24/16 07:09*	*09/25/16 17:11*	*10*
Nitrobenzene-d5 (Surr)	*68*		*34 - 132*	*09/24/16 07:09*	*09/25/16 17:11*	*10*
Phenol-d5 (Surr)	*30*		*11 - 120*	*09/24/16 07:09*	*09/25/16 17:11*	*10*
p-Terphenyl-d14	*41*	*X*	*58 - 147*	*09/24/16 07:09*	*09/25/16 17:11*	*10*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**161**		0.20	0.060	mg/L		09/23/16 09:00	09/23/16 20:46	1
Antimony	**0.018**	**J**	0.020	0.0068	mg/L		09/23/16 09:00	09/23/16 20:46	1
Arsenic	**0.41**		0.015	0.0056	mg/L		09/23/16 09:00	09/23/16 20:46	1
Barium	**1.5**		0.0020	0.00070	mg/L		09/23/16 09:00	09/23/16 20:46	1
Beryllium	**0.010**		0.0020	0.00030	mg/L		09/23/16 09:00	09/23/16 20:46	1
Cadmium	**0.014**		0.0020	0.00050	mg/L		09/23/16 09:00	09/23/16 20:46	1
Calcium	**934**		0.50	0.10	mg/L		09/23/16 09:00	09/23/16 20:46	1
Chromium	**0.38**		0.0040	0.0010	mg/L		09/23/16 09:00	09/23/16 20:46	1
Cobalt	**0.15**		0.0040	0.00063	mg/L		09/23/16 09:00	09/23/16 20:46	1
Copper	**0.55**		0.010	0.0016	mg/L		09/23/16 09:00	09/23/16 20:46	1
Iron	**251**	**^**	0.050	0.019	mg/L		09/23/16 09:00	09/23/16 20:46	1
Lead	**2.2**		0.010	0.0030	mg/L		09/23/16 09:00	09/23/16 20:46	1
Magnesium	**234**	**^**	0.20	0.043	mg/L		09/23/16 09:00	09/23/16 20:46	1
Manganese	**8.6**		0.0030	0.00040	mg/L		09/23/16 09:00	09/23/16 20:46	1
Nickel	**0.38**		0.010	0.0013	mg/L		09/23/16 09:00	09/23/16 20:46	1
Potassium	**58.8**		0.50	0.10	mg/L		09/23/16 09:00	09/23/16 20:46	1
Selenium	**0.11**		0.025	0.0087	mg/L		09/23/16 09:00	09/23/16 20:46	1
Silver	ND		0.0060	0.0017	mg/L		09/23/16 09:00	09/23/16 20:46	1
Sodium	**16.5**		1.0	0.32	mg/L		09/23/16 09:00	09/23/16 20:46	1
Thallium	ND		0.020	0.010	mg/L		09/23/16 09:00	09/23/16 20:46	1
Vanadium	**0.39**		0.0050	0.0015	mg/L		09/23/16 09:00	09/23/16 20:46	1
Zinc	**9.5**		0.010	0.0015	mg/L		09/23/16 09:00	09/23/16 20:46	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum, Dissolved	ND		0.20	0.060	mg/L		09/24/16 09:15	09/26/16 23:30	1
Antimony, Dissolved	ND		0.020	0.0068	mg/L		09/24/16 09:15	09/26/16 23:30	1
Arsenic, Dissolved	**0.015**		0.015	0.0056	mg/L		09/24/16 09:15	09/26/16 23:30	1
Barium, Dissolved	**0.14**		0.0020	0.00070	mg/L		09/24/16 09:15	09/26/16 23:30	1
Beryllium, Dissolved	ND		0.0020	0.00030	mg/L		09/24/16 09:15	09/26/16 23:30	1
Cadmium, Dissolved	ND		0.0020	0.00050	mg/L		09/24/16 09:15	09/26/16 23:30	1
Calcium, Dissolved	**257**		0.50	0.10	mg/L		09/24/16 09:15	09/26/16 23:30	1
Chromium, Dissolved	ND		0.0040	0.0010	mg/L		09/24/16 09:15	09/26/16 23:30	1
Cobalt, Dissolved	**0.00093**	**J**	0.0040	0.00063	mg/L		09/24/16 09:15	09/26/16 23:30	1
Copper, Dissolved	ND		0.010	0.0016	mg/L		09/24/16 09:15	09/26/16 23:30	1
Iron, Dissolved	ND		0.050	0.019	mg/L		09/24/16 09:15	09/26/16 23:30	1
Lead, Dissolved	ND		0.010	0.0030	mg/L		09/24/16 09:15	09/26/16 23:30	1
Magnesium, Dissolved	**47.6**		0.20	0.043	mg/L		09/24/16 09:15	09/26/16 23:30	1

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-106388-1
SDG: 106388

Client Sample ID: GW-18R-092216
Date Collected: 09/22/16 09:50
Date Received: 09/22/16 12:23

Lab Sample ID: 480-106388-2
Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.42**	**B**	0.0030	0.00040	mg/L		09/24/16 09:15	09/26/16 23:30	1
Nickel, Dissolved	**0.0051**	**J**	0.010	0.0013	mg/L		09/24/16 09:15	09/26/16 23:30	1
Potassium, Dissolved	**35.3**		0.50	0.10	mg/L		09/24/16 09:15	09/26/16 23:30	1
Selenium, Dissolved	ND		0.025	0.0087	mg/L		09/24/16 09:15	09/26/16 23:30	1
Silver, Dissolved	ND		0.0060	0.0017	mg/L		09/24/16 09:15	09/26/16 23:30	1
Sodium, Dissolved	**18.2**	**B**	1.0	0.32	mg/L		09/24/16 09:15	09/26/16 23:30	1
Thallium, Dissolved	ND		0.020	0.010	mg/L		09/24/16 09:15	09/26/16 23:30	1
Vanadium, Dissolved	**0.0055**		0.0050	0.0015	mg/L		09/24/16 09:15	09/26/16 23:30	1
Zinc, Dissolved	**0.0094**	**J B**	0.010	0.0015	mg/L		09/24/16 09:15	09/26/16 23:30	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.012**		0.00020	0.00012	mg/L		09/23/16 10:45	09/23/16 15:14	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	0.00012	mg/L		09/27/16 08:50	09/28/16 09:28	1

Client Sample ID: GW-19-092216
Date Collected: 09/22/16 11:10
Date Received: 09/22/16 12:23

Lab Sample ID: 480-106388-3
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		2.4	0.31	ug/L		09/24/16 07:09	09/25/16 17:40	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*93*		*39 - 146*	*09/24/16 07:09*	*09/25/16 17:40*	*5*
2-Fluorobiphenyl	*81*		*37 - 120*	*09/24/16 07:09*	*09/25/16 17:40*	*5*
2-Fluorophenol (Surr)	*42*		*18 - 120*	*09/24/16 07:09*	*09/25/16 17:40*	*5*
Nitrobenzene-d5 (Surr)	*69*		*34 - 132*	*09/24/16 07:09*	*09/25/16 17:40*	*5*
Phenol-d5 (Surr)	*28*		*11 - 120*	*09/24/16 07:09*	*09/25/16 17:40*	*5*
p-Terphenyl-d14	*80*		*58 - 147*	*09/24/16 07:09*	*09/25/16 17:40*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1.1**		0.20	0.060	mg/L		09/23/16 09:00	09/23/16 21:01	1
Antimony	ND		0.020	0.0068	mg/L		09/23/16 09:00	09/23/16 21:01	1
Arsenic	**0.021**		0.015	0.0056	mg/L		09/23/16 09:00	09/23/16 21:01	1
Barium	**0.020**		0.0020	0.00070	mg/L		09/23/16 09:00	09/23/16 21:01	1
Beryllium	ND		0.0020	0.00030	mg/L		09/23/16 09:00	09/23/16 21:01	1
Cadmium	**0.00058**	**J**	0.0020	0.00050	mg/L		09/23/16 09:00	09/23/16 21:01	1
Calcium	**59.9**		0.50	0.10	mg/L		09/23/16 09:00	09/23/16 21:01	1
Chromium	**0.0044**		0.0040	0.0010	mg/L		09/23/16 09:00	09/23/16 21:01	1
Cobalt	ND		0.0040	0.00063	mg/L		09/23/16 09:00	09/23/16 21:01	1
Copper	**0.052**		0.010	0.0016	mg/L		09/23/16 09:00	09/23/16 21:01	1
Iron	**0.58**		0.050	0.019	mg/L		09/23/16 09:00	09/26/16 14:24	1
Lead	**0.023**		0.010	0.0030	mg/L		09/23/16 09:00	09/23/16 21:01	1
Magnesium	**0.74**		0.20	0.043	mg/L		09/23/16 09:00	09/23/16 21:01	1
Manganese	**0.0082**		0.0030	0.00040	mg/L		09/23/16 09:00	09/23/16 21:01	1
Nickel	**0.0062**	**J**	0.010	0.0013	mg/L		09/23/16 09:00	09/23/16 21:01	1
Potassium	**421**		0.50	0.10	mg/L		09/23/16 09:00	09/23/16 21:01	1
Selenium	**0.013**	**J**	0.025	0.0087	mg/L		09/23/16 09:00	09/23/16 21:01	1
Silver	ND		0.0060	0.0017	mg/L		09/23/16 09:00	09/23/16 21:01	1
Sodium	**32.8**		1.0	0.32	mg/L		09/23/16 09:00	09/23/16 21:01	1
Thallium	ND		0.020	0.010	mg/L		09/23/16 09:00	09/23/16 21:01	1
Vanadium	**0.035**		0.0050	0.0015	mg/L		09/23/16 09:00	09/23/16 21:01	1
Zinc	**0.0099**	**J**	0.010	0.0015	mg/L		09/23/16 09:00	09/23/16 21:01	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00063**		0.00020	0.00012	mg/L		09/23/16 10:45	09/23/16 15:16	1

Client Sample ID: GW-20-092216
Date Collected: 09/22/16 08:50
Date Received: 09/22/16 12:23

Lab Sample ID: 480-106388-4
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		0.47	0.061	ug/L		09/24/16 07:09	09/25/16 18:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*99*		*39 - 146*	*09/24/16 07:09*	*09/25/16 18:09*	*1*
2-Fluorobiphenyl	*78*		*37 - 120*	*09/24/16 07:09*	*09/25/16 18:09*	*1*
2-Fluorophenol (Surr)	*43*		*18 - 120*	*09/24/16 07:09*	*09/25/16 18:09*	*1*
Nitrobenzene-d5 (Surr)	*69*		*34 - 132*	*09/24/16 07:09*	*09/25/16 18:09*	*1*
Phenol-d5 (Surr)	*29*		*11 - 120*	*09/24/16 07:09*	*09/25/16 18:09*	*1*
p-Terphenyl-d14	*74*		*58 - 147*	*09/24/16 07:09*	*09/25/16 18:09*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.22**		0.20	0.060	mg/L		09/23/16 09:00	09/23/16 21:04	1
Antimony	ND		0.020	0.0068	mg/L		09/23/16 09:00	09/23/16 21:04	1
Arsenic	**0.0064**	**J**	0.015	0.0056	mg/L		09/23/16 09:00	09/23/16 21:04	1
Barium	**0.038**		0.0020	0.00070	mg/L		09/23/16 09:00	09/23/16 21:04	1
Beryllium	ND		0.0020	0.00030	mg/L		09/23/16 09:00	09/23/16 21:04	1
Cadmium	ND		0.0020	0.00050	mg/L		09/23/16 09:00	09/23/16 21:04	1
Calcium	**47.9**		0.50	0.10	mg/L		09/23/16 09:00	09/23/16 21:04	1
Chromium	ND		0.0040	0.0010	mg/L		09/23/16 09:00	09/23/16 21:04	1
Cobalt	ND		0.0040	0.00063	mg/L		09/23/16 09:00	09/23/16 21:04	1
Copper	**0.0016**	**J**	0.010	0.0016	mg/L		09/23/16 09:00	09/23/16 21:04	1
Iron	**0.26**		0.050	0.019	mg/L		09/23/16 09:00	09/26/16 14:27	1
Lead	**0.0043**	**J**	0.010	0.0030	mg/L		09/23/16 09:00	09/23/16 21:04	1
Magnesium	**4.7**		0.20	0.043	mg/L		09/23/16 09:00	09/23/16 21:04	1
Manganese	**0.091**		0.0030	0.00040	mg/L		09/23/16 09:00	09/23/16 21:04	1
Nickel	**0.0015**	**J**	0.010	0.0013	mg/L		09/23/16 09:00	09/23/16 21:04	1
Potassium	**139**		0.50	0.10	mg/L		09/23/16 09:00	09/23/16 21:04	1
Selenium	ND		0.025	0.0087	mg/L		09/23/16 09:00	09/23/16 21:04	1
Silver	ND		0.0060	0.0017	mg/L		09/23/16 09:00	09/23/16 21:04	1
Sodium	**42.9**		1.0	0.32	mg/L		09/23/16 09:00	09/23/16 21:04	1
Thallium	ND		0.020	0.010	mg/L		09/23/16 09:00	09/23/16 21:04	1
Vanadium	**0.012**		0.0050	0.0015	mg/L		09/23/16 09:00	09/23/16 21:04	1
Zinc	**0.0070**	**J**	0.010	0.0015	mg/L		09/23/16 09:00	09/23/16 21:04	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum, Dissolved	ND		0.20	0.060	mg/L		09/24/16 09:15	09/26/16 23:57	1
Antimony, Dissolved	ND		0.020	0.0068	mg/L		09/24/16 09:15	09/26/16 23:57	1
Arsenic, Dissolved	**0.0095**	**J**	0.015	0.0056	mg/L		09/24/16 09:15	09/26/16 23:57	1
Barium, Dissolved	**0.040**		0.0020	0.00070	mg/L		09/24/16 09:15	09/26/16 23:57	1
Beryllium, Dissolved	**0.00088**	**J**	0.0020	0.00030	mg/L		09/24/16 09:15	09/26/16 23:57	1
Cadmium, Dissolved	**0.00086**	**J**	0.0020	0.00050	mg/L		09/24/16 09:15	09/26/16 23:57	1
Calcium, Dissolved	**52.8**		0.50	0.10	mg/L		09/24/16 09:15	09/26/16 23:57	1
Chromium, Dissolved	ND		0.0040	0.0010	mg/L		09/24/16 09:15	09/26/16 23:57	1
Cobalt, Dissolved	ND		0.0040	0.00063	mg/L		09/24/16 09:15	09/26/16 23:57	1
Copper, Dissolved	ND		0.010	0.0016	mg/L		09/24/16 09:15	09/26/16 23:57	1
Iron, Dissolved	**0.062**		0.050	0.019	mg/L		09/24/16 09:15	09/26/16 23:57	1
Lead, Dissolved	ND		0.010	0.0030	mg/L		09/24/16 09:15	09/26/16 23:57	1
Magnesium, Dissolved	**5.8**		0.20	0.043	mg/L		09/24/16 09:15	09/26/16 23:57	1

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-106388-1
SDG: 106388

Client Sample ID: GW-20-092216
Date Collected: 09/22/16 08:50
Date Received: 09/22/16 12:23

Lab Sample ID: 480-106388-4
Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.13**	**B**	0.0030	0.00040	mg/L		09/24/16 09:15	09/26/16 23:57	1
Nickel, Dissolved	ND		0.010	0.0013	mg/L		09/24/16 09:15	09/26/16 23:57	1
Potassium, Dissolved	**137**		0.50	0.10	mg/L		09/24/16 09:15	09/26/16 23:57	1
Selenium, Dissolved	ND		0.025	0.0087	mg/L		09/24/16 09:15	09/26/16 23:57	1
Silver, Dissolved	ND		0.0060	0.0017	mg/L		09/24/16 09:15	09/26/16 23:57	1
Sodium, Dissolved	**38.9**	**B**	1.0	0.32	mg/L		09/24/16 09:15	09/26/16 23:57	1
Thallium, Dissolved	ND		0.020	0.010	mg/L		09/24/16 09:15	09/26/16 23:57	1
Vanadium, Dissolved	**0.0093**		0.0050	0.0015	mg/L		09/24/16 09:15	09/26/16 23:57	1
Zinc, Dissolved	**0.0038**	**J B**	0.010	0.0015	mg/L		09/24/16 09:15	09/26/16 23:57	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/23/16 10:45	09/23/16 15:17	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	0.00012	mg/L		09/27/16 08:50	09/28/16 09:31	1

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-106388-1
SDG: 106388

Client Sample ID: GW-21-092216
Date Collected: 09/22/16 11:40
Date Received: 09/22/16 12:23

Lab Sample ID: 480-106388-5
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		2.4	0.31	ug/L		09/24/16 07:09	09/25/16 18:38	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*88*		*39 - 146*	*09/24/16 07:09*	*09/25/16 18:38*	*5*
2-Fluorobiphenyl	*79*		*37 - 120*	*09/24/16 07:09*	*09/25/16 18:38*	*5*
2-Fluorophenol (Surr)	*39*		*18 - 120*	*09/24/16 07:09*	*09/25/16 18:38*	*5*
Nitrobenzene-d5 (Surr)	*66*		*34 - 132*	*09/24/16 07:09*	*09/25/16 18:38*	*5*
Phenol-d5 (Surr)	*26*		*11 - 120*	*09/24/16 07:09*	*09/25/16 18:38*	*5*
p-Terphenyl-d14	*73*		*58 - 147*	*09/24/16 07:09*	*09/25/16 18:38*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		09/23/16 09:00	09/23/16 21:25	1
Antimony	ND		0.020	0.0068	mg/L		09/23/16 09:00	09/23/16 21:25	1
Arsenic	**0.0062**	**J**	0.015	0.0056	mg/L		09/23/16 09:00	09/23/16 21:25	1
Barium	**0.032**		0.0020	0.00070	mg/L		09/23/16 09:00	09/23/16 21:25	1
Beryllium	ND		0.0020	0.00030	mg/L		09/23/16 09:00	09/23/16 21:25	1
Cadmium	ND		0.0020	0.00050	mg/L		09/23/16 09:00	09/23/16 21:25	1
Calcium	**31.8**		0.50	0.10	mg/L		09/23/16 09:00	09/23/16 21:25	1
Chromium	ND		0.0040	0.0010	mg/L		09/23/16 09:00	09/23/16 21:25	1
Cobalt	ND		0.0040	0.00063	mg/L		09/23/16 09:00	09/23/16 21:25	1
Copper	ND		0.010	0.0016	mg/L		09/23/16 09:00	09/23/16 21:25	1
Iron	**0.75**		0.050	0.019	mg/L		09/23/16 09:00	09/26/16 14:54	1
Lead	ND		0.010	0.0030	mg/L		09/23/16 09:00	09/23/16 21:25	1
Magnesium	**5.7**		0.20	0.043	mg/L		09/23/16 09:00	09/23/16 21:25	1
Manganese	**0.0094**		0.0030	0.00040	mg/L		09/23/16 09:00	09/23/16 21:25	1
Nickel	ND		0.010	0.0013	mg/L		09/23/16 09:00	09/23/16 21:25	1
Potassium	**16.4**		0.50	0.10	mg/L		09/23/16 09:00	09/23/16 21:25	1
Selenium	ND		0.025	0.0087	mg/L		09/23/16 09:00	09/23/16 21:25	1
Silver	ND		0.0060	0.0017	mg/L		09/23/16 09:00	09/23/16 21:25	1
Sodium	**12.0**		1.0	0.32	mg/L		09/23/16 09:00	09/23/16 21:25	1
Thallium	ND		0.020	0.010	mg/L		09/23/16 09:00	09/23/16 21:25	1
Vanadium	**0.0027**	**J**	0.0050	0.0015	mg/L		09/23/16 09:00	09/23/16 21:25	1
Zinc	**0.0083**	**J**	0.010	0.0015	mg/L		09/23/16 09:00	09/23/16 21:25	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/23/16 10:45	09/23/16 15:27	1

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-106388-1
SDG: 106388

Client Sample ID: GW-23-092216

Date Collected: 09/22/16 10:50
Date Received: 09/22/16 12:23

Lab Sample ID: 480-106388-6

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		0.47	0.061	ug/L		09/24/16 07:09	09/25/16 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*99*		*39 - 146*	*09/24/16 07:09*	*09/25/16 19:07*	*1*
2-Fluorobiphenyl	*74*		*37 - 120*	*09/24/16 07:09*	*09/25/16 19:07*	*1*
2-Fluorophenol (Surr)	*38*		*18 - 120*	*09/24/16 07:09*	*09/25/16 19:07*	*1*
Nitrobenzene-d5 (Surr)	*60*		*34 - 132*	*09/24/16 07:09*	*09/25/16 19:07*	*1*
Phenol-d5 (Surr)	*26*		*11 - 120*	*09/24/16 07:09*	*09/25/16 19:07*	*1*
p-Terphenyl-d14	*77*		*58 - 147*	*09/24/16 07:09*	*09/25/16 19:07*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1.0**		0.20	0.060	mg/L		09/23/16 09:00	09/23/16 21:21	1
Antimony	**0.053**		0.020	0.0068	mg/L		09/23/16 09:00	09/23/16 21:21	1
Arsenic	**0.039**		0.015	0.0056	mg/L		09/23/16 09:00	09/23/16 21:21	1
Barium	**0.18**		0.0020	0.00070	mg/L		09/23/16 09:00	09/23/16 21:21	1
Beryllium	ND		0.0020	0.00030	mg/L		09/23/16 09:00	09/23/16 21:21	1
Cadmium	**0.0012**	**J**	0.0020	0.00050	mg/L		09/23/16 09:00	09/23/16 21:21	1
Calcium	**245**		0.50	0.10	mg/L		09/23/16 09:00	09/23/16 21:21	1
Chromium	**0.0085**		0.0040	0.0010	mg/L		09/23/16 09:00	09/23/16 21:21	1
Cobalt	**0.0013**	**J**	0.0040	0.00063	mg/L		09/23/16 09:00	09/23/16 21:21	1
Copper	**0.22**		0.010	0.0016	mg/L		09/23/16 09:00	09/23/16 21:21	1
Iron	**25.3**	**^**	0.050	0.019	mg/L		09/23/16 09:00	09/23/16 21:21	1
Lead	**0.86**		0.010	0.0030	mg/L		09/23/16 09:00	09/23/16 21:21	1
Magnesium	**53.2**		0.20	0.043	mg/L		09/23/16 09:00	09/23/16 21:21	1
Manganese	**0.57**		0.0030	0.00040	mg/L		09/23/16 09:00	09/23/16 21:21	1
Nickel	**0.0064**	**J**	0.010	0.0013	mg/L		09/23/16 09:00	09/23/16 21:21	1
Potassium	**50.9**		0.50	0.10	mg/L		09/23/16 09:00	09/23/16 21:21	1
Selenium	**0.011**	**J**	0.025	0.0087	mg/L		09/23/16 09:00	09/23/16 21:21	1
Silver	ND		0.0060	0.0017	mg/L		09/23/16 09:00	09/23/16 21:21	1
Sodium	**20.6**		1.0	0.32	mg/L		09/23/16 09:00	09/23/16 21:21	1
Thallium	ND		0.020	0.010	mg/L		09/23/16 09:00	09/23/16 21:21	1
Vanadium	**0.020**		0.0050	0.0015	mg/L		09/23/16 09:00	09/23/16 21:21	1
Zinc	**0.11**		0.010	0.0015	mg/L		09/23/16 09:00	09/23/16 21:21	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum, Dissolved	ND		0.20	0.060	mg/L		09/24/16 09:15	09/27/16 00:00	1
Antimony, Dissolved	ND		0.020	0.0068	mg/L		09/24/16 09:15	09/27/16 00:00	1
Arsenic, Dissolved	ND		0.015	0.0056	mg/L		09/24/16 09:15	09/27/16 00:00	1
Barium, Dissolved	**0.12**		0.0020	0.00070	mg/L		09/24/16 09:15	09/27/16 00:00	1
Beryllium, Dissolved	ND		0.0020	0.00030	mg/L		09/24/16 09:15	09/27/16 00:00	1
Cadmium, Dissolved	ND		0.0020	0.00050	mg/L		09/24/16 09:15	09/27/16 00:00	1
Calcium, Dissolved	**239**		0.50	0.10	mg/L		09/24/16 09:15	09/27/16 00:00	1
Chromium, Dissolved	ND		0.0040	0.0010	mg/L		09/24/16 09:15	09/27/16 00:00	1
Cobalt, Dissolved	ND		0.0040	0.00063	mg/L		09/24/16 09:15	09/27/16 00:00	1
Copper, Dissolved	ND		0.010	0.0016	mg/L		09/24/16 09:15	09/27/16 00:00	1
Iron, Dissolved	ND		0.050	0.019	mg/L		09/24/16 09:15	09/27/16 00:00	1
Lead, Dissolved	ND		0.010	0.0030	mg/L		09/24/16 09:15	09/27/16 00:00	1
Magnesium, Dissolved	**52.9**		0.20	0.043	mg/L		09/24/16 09:15	09/27/16 00:00	1

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-106388-1
SDG: 106388

Client Sample ID: GW-23-092216
Date Collected: 09/22/16 10:50
Date Received: 09/22/16 12:23

Lab Sample ID: 480-106388-6
Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**0.47**	**B**	0.0030	0.00040	mg/L		09/24/16 09:15	09/27/16 00:00	1
Nickel, Dissolved	**0.0031**	**J**	0.010	0.0013	mg/L		09/24/16 09:15	09/27/16 00:00	1
Potassium, Dissolved	**53.4**		0.50	0.10	mg/L		09/24/16 09:15	09/27/16 00:00	1
Selenium, Dissolved	ND		0.025	0.0087	mg/L		09/24/16 09:15	09/27/16 00:00	1
Silver, Dissolved	ND		0.0060	0.0017	mg/L		09/24/16 09:15	09/27/16 00:00	1
Sodium, Dissolved	**21.9**	**B**	1.0	0.32	mg/L		09/24/16 09:15	09/27/16 00:00	1
Thallium, Dissolved	ND		0.020	0.010	mg/L		09/24/16 09:15	09/27/16 00:00	1
Vanadium, Dissolved	ND		0.0050	0.0015	mg/L		09/24/16 09:15	09/27/16 00:00	1
Zinc, Dissolved	**0.010**	**B**	0.010	0.0015	mg/L		09/24/16 09:15	09/27/16 00:00	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00057**		0.00020	0.00012	mg/L		09/23/16 10:45	09/23/16 15:29	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	0.00012	mg/L		09/27/16 08:50	09/28/16 09:38	1

Client Sample ID: GW-22-092616
Date Collected: 09/26/16 11:45
Date Received: 09/26/16 12:10

Lab Sample ID: 480-106542-1
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		2.4	0.31	ug/L		09/28/16 19:53	09/29/16 12:29	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*90*		*39 - 146*	*09/28/16 19:53*	*09/29/16 12:29*	*5*
2-Fluorobiphenyl	*83*		*37 - 120*	*09/28/16 19:53*	*09/29/16 12:29*	*5*
2-Fluorophenol (Surr)	*47*		*18 - 120*	*09/28/16 19:53*	*09/29/16 12:29*	*5*
Nitrobenzene-d5 (Surr)	*68*		*34 - 132*	*09/28/16 19:53*	*09/29/16 12:29*	*5*
Phenol-d5 (Surr)	*31*		*11 - 120*	*09/28/16 19:53*	*09/29/16 12:29*	*5*
p-Terphenyl-d14	*85*		*58 - 147*	*09/28/16 19:53*	*09/29/16 12:29*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**2.7**		0.20	0.060	mg/L		09/27/16 09:13	09/27/16 17:37	1
Antimony	**0.0095**	**J**	0.020	0.0068	mg/L		09/27/16 09:13	09/27/16 17:37	1
Arsenic	**0.010**	**J**	0.015	0.0056	mg/L		09/27/16 09:13	09/27/16 17:37	1
Barium	**0.054**		0.0020	0.00070	mg/L		09/27/16 09:13	09/27/16 17:37	1
Beryllium	ND		0.0020	0.00030	mg/L		09/27/16 09:13	09/27/16 17:37	1
Cadmium	**0.00085**	**J**	0.0020	0.00050	mg/L		09/27/16 09:13	09/27/16 17:37	1
Calcium	**363**		0.50	0.10	mg/L		09/27/16 09:13	09/27/16 17:37	1
Chromium	**0.0069**		0.0040	0.0010	mg/L		09/27/16 09:13	09/27/16 17:37	1
Cobalt	**0.0036**	**J**	0.0040	0.00063	mg/L		09/27/16 09:13	09/27/16 17:37	1
Copper	**0.032**		0.010	0.0016	mg/L		09/27/16 09:13	09/27/16 17:37	1
Iron	**10.6**		0.050	0.019	mg/L		09/27/16 09:13	09/27/16 17:37	1
Lead	**0.030**	**B**	0.010	0.0030	mg/L		09/27/16 09:13	09/27/16 17:37	1
Magnesium	**179**		0.20	0.043	mg/L		09/27/16 09:13	09/27/16 17:37	1
Manganese	**1.4**	**B**	0.0030	0.00040	mg/L		09/27/16 09:13	09/27/16 17:37	1
Nickel	**0.015**		0.010	0.0013	mg/L		09/27/16 09:13	09/27/16 17:37	1
Potassium	**44.8**		0.50	0.10	mg/L		09/27/16 09:13	09/27/16 17:37	1
Selenium	ND		0.025	0.0087	mg/L		09/27/16 09:13	09/27/16 17:37	1
Silver	**0.0020**	**J**	0.0060	0.0017	mg/L		09/27/16 09:13	09/27/16 17:37	1
Sodium	**72.9**		1.0	0.32	mg/L		09/27/16 09:13	09/27/16 17:37	1
Thallium	ND		0.020	0.010	mg/L		09/27/16 09:13	09/27/16 17:37	1
Vanadium	**0.0047**	**J**	0.0050	0.0015	mg/L		09/27/16 09:13	09/27/16 17:37	1
Zinc	**0.14**		0.010	0.0015	mg/L		09/27/16 09:13	09/27/16 17:37	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum, Dissolved	ND		0.20	0.060	mg/L		10/05/16 11:55	10/06/16 16:28	1
Antimony, Dissolved	ND		0.020	0.0068	mg/L		10/05/16 11:55	10/06/16 16:28	1
Arsenic, Dissolved	ND		0.015	0.0056	mg/L		10/05/16 11:55	10/06/16 16:28	1
Barium, Dissolved	**0.036**		0.0020	0.00070	mg/L		10/05/16 11:55	10/06/16 16:28	1
Beryllium, Dissolved	ND		0.0020	0.00030	mg/L		10/05/16 11:55	10/06/16 16:28	1
Cadmium, Dissolved	ND		0.0020	0.00050	mg/L		10/05/16 11:55	10/06/16 16:28	1
Calcium, Dissolved	**356**		0.50	0.10	mg/L		10/05/16 11:55	10/06/16 16:28	1
Chromium, Dissolved	ND		0.0040	0.0010	mg/L		10/05/16 11:55	10/06/16 16:28	1
Cobalt, Dissolved	**0.0025**	**J**	0.0040	0.00063	mg/L		10/05/16 11:55	10/06/16 16:28	1
Copper, Dissolved	**0.011**		0.010	0.0016	mg/L		10/05/16 11:55	10/06/16 16:28	1
Iron, Dissolved	ND		0.050	0.019	mg/L		10/05/16 11:55	10/06/16 16:28	1
Lead, Dissolved	ND		0.010	0.0030	mg/L		10/05/16 11:55	10/06/16 16:28	1
Magnesium, Dissolved	**179**		0.20	0.043	mg/L		10/05/16 11:55	10/06/16 16:28	1

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-106388-1
SDG: 106388

Client Sample ID: GW-22-092616
Date Collected: 09/26/16 11:45
Date Received: 09/26/16 12:10

Lab Sample ID: 480-106542-1
Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese, Dissolved	**1.2**	**B**	0.0030	0.00040	mg/L		10/05/16 11:55	10/06/16 16:28	1
Nickel, Dissolved	**0.015**		0.010	0.0013	mg/L		10/05/16 11:55	10/06/16 16:28	1
Potassium, Dissolved	**44.6**		0.50	0.10	mg/L		10/05/16 11:55	10/06/16 16:28	1
Selenium, Dissolved	ND		0.025	0.0087	mg/L		10/05/16 11:55	10/06/16 16:28	1
Silver, Dissolved	ND		0.0060	0.0017	mg/L		10/05/16 11:55	10/06/16 16:28	1
Sodium, Dissolved	**75.5**		1.0	0.32	mg/L		10/05/16 11:55	10/06/16 16:28	1
Thallium, Dissolved	ND		0.020	0.010	mg/L		10/05/16 11:55	10/06/16 16:28	1
Vanadium, Dissolved	ND		0.0050	0.0015	mg/L		10/05/16 11:55	10/06/16 16:28	1
Zinc, Dissolved	**0.13**	**B**	0.010	0.0015	mg/L		10/05/16 11:55	10/06/16 16:28	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/27/16 08:50	09/28/16 08:46	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	0.00012	mg/L		10/06/16 08:55	10/06/16 14:11	1

Surrogate Summary

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-106388-1
SDG: 106388

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		TBP	FBP	2FP	NBZ	PHL	TPH		
Lab Sample ID	Client Sample ID	(39-146)	(37-120)	(18-120)	(34-132)	(11-120)	(58-147)		
480-106388-1	FDUP-GW-20-092216	94	79	41	66	28	77		
480-106388-2	GW-18R-092216	83	72	50	68	30	41 X		
480-106388-3	GW-19-092216	93	81	42	69	28	80		
480-106388-4	GW-20-092216	99	78	43	69	29	74		
480-106388-4 MS	GW-20-092216	105	82	44	70	32	86		
480-106388-4 MSD	GW-20-092216	117	93	50	81	37	90		
480-106388-5	GW-21-092216	88	79	39	66	26	73		
480-106388-6	GW-23-092216	99	74	38	60	26	77		
480-106542-1	GW-22-092616	90	83	47	68	31	85		
LCS 480-322132/2-A	Lab Control Sample	101	81	49	71	36	92		
LCS 480-322923/2-A	Lab Control Sample	96	83	57	78	41	91		
LCSD 480-322923/3-A	Lab Control Sample Dup	93	81	57	76	40	90		
MB 480-322132/1-A	Method Blank	99	86	49	74	36	99		
MB 480-322923/1-A	Method Blank	92	88	58	81	40	95		

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = p-Terphenyl-d14

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 480-322132/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322260 — **Prep Batch: 322132**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		0.50	0.065	ug/L		09/24/16 07:09	09/25/16 14:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*99*		*39 - 146*	*09/24/16 07:09*	*09/25/16 14:17*	*1*
2-Fluorobiphenyl	*86*		*37 - 120*	*09/24/16 07:09*	*09/25/16 14:17*	*1*
2-Fluorophenol (Surr)	*49*		*18 - 120*	*09/24/16 07:09*	*09/25/16 14:17*	*1*
Nitrobenzene-d5 (Surr)	*74*		*34 - 132*	*09/24/16 07:09*	*09/25/16 14:17*	*1*
Phenol-d5 (Surr)	*36*		*11 - 120*	*09/24/16 07:09*	*09/25/16 14:17*	*1*
p-Terphenyl-d14	*99*		*58 - 147*	*09/24/16 07:09*	*09/25/16 14:17*	*1*

Lab Sample ID: LCS 480-322132/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322260 — **Prep Batch: 322132**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrobenzene	4.00	3.02		ug/L		76	42 - 131

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*101*		*39 - 146*
2-Fluorobiphenyl	*81*		*37 - 120*
2-Fluorophenol (Surr)	*49*		*18 - 120*
Nitrobenzene-d5 (Surr)	*71*		*34 - 132*
Phenol-d5 (Surr)	*36*		*11 - 120*
p-Terphenyl-d14	*92*		*58 - 147*

Lab Sample ID: 480-106388-4 MS — **Client Sample ID: GW-20-092216**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322260 — **Prep Batch: 322132**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrobenzene	ND		3.80	2.97		ug/L		78	42 - 131

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*105*		*39 - 146*
2-Fluorobiphenyl	*82*		*37 - 120*
2-Fluorophenol (Surr)	*44*		*18 - 120*
Nitrobenzene-d5 (Surr)	*70*		*34 - 132*
Phenol-d5 (Surr)	*32*		*11 - 120*
p-Terphenyl-d14	*86*		*58 - 147*

Lab Sample ID: 480-106388-4 MSD — **Client Sample ID: GW-20-092216**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322260 — **Prep Batch: 322132**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrobenzene	ND		3.80	3.35		ug/L		88	42 - 131	12	24

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 480-106388-4 MSD
Matrix: Water
Analysis Batch: 322260

Client Sample ID: GW-20-092216
Prep Type: Total/NA
Prep Batch: 322132

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	117		39 - 146
2-Fluorobiphenyl	93		37 - 120
2-Fluorophenol (Surr)	50		18 - 120
Nitrobenzene-d5 (Surr)	81		34 - 132
Phenol-d5 (Surr)	37		11 - 120
p-Terphenyl-d14	90		58 - 147

Lab Sample ID: MB 480-322923/1-A
Matrix: Water
Analysis Batch: 323002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 322923

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		0.50	0.065	ug/L		09/28/16 19:53	09/29/16 11:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	92		39 - 146	09/28/16 19:53	09/29/16 11:01	1
2-Fluorobiphenyl	88		37 - 120	09/28/16 19:53	09/29/16 11:01	1
2-Fluorophenol (Surr)	58		18 - 120	09/28/16 19:53	09/29/16 11:01	1
Nitrobenzene-d5 (Surr)	81		34 - 132	09/28/16 19:53	09/29/16 11:01	1
Phenol-d5 (Surr)	40		11 - 120	09/28/16 19:53	09/29/16 11:01	1
p-Terphenyl-d14	95		58 - 147	09/28/16 19:53	09/29/16 11:01	1

Lab Sample ID: LCS 480-322923/2-A
Matrix: Water
Analysis Batch: 323002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322923

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrobenzene			4.00	3.35		ug/L		84	42 - 131		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	96		39 - 146
2-Fluorobiphenyl	83		37 - 120
2-Fluorophenol (Surr)	57		18 - 120
Nitrobenzene-d5 (Surr)	78		34 - 132
Phenol-d5 (Surr)	41		11 - 120
p-Terphenyl-d14	91		58 - 147

Lab Sample ID: LCSD 480-322923/3-A
Matrix: Water
Analysis Batch: 323002

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 322923

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrobenzene			4.00	3.29		ug/L		82	42 - 131	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	93		39 - 146
2-Fluorobiphenyl	81		37 - 120

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 480-322923/3-A
Matrix: Water
Analysis Batch: 323002

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 322923

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorophenol (Surr)	*57*		*18 - 120*
Nitrobenzene-d5 (Surr)	*76*		*34 - 132*
Phenol-d5 (Surr)	*40*		*11 - 120*
p-Terphenyl-d14	*90*		*58 - 147*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-321920/1-A
Matrix: Water
Analysis Batch: 322154

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 321920

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		09/23/16 09:00	09/23/16 20:35	1
Antimony	ND		0.020	0.0068	mg/L		09/23/16 09:00	09/23/16 20:35	1
Arsenic	ND		0.015	0.0056	mg/L		09/23/16 09:00	09/23/16 20:35	1
Barium	ND		0.0020	0.00070	mg/L		09/23/16 09:00	09/23/16 20:35	1
Beryllium	ND		0.0020	0.00030	mg/L		09/23/16 09:00	09/23/16 20:35	1
Cadmium	ND		0.0020	0.00050	mg/L		09/23/16 09:00	09/23/16 20:35	1
Calcium	ND		0.50	0.10	mg/L		09/23/16 09:00	09/23/16 20:35	1
Chromium	ND		0.0040	0.0010	mg/L		09/23/16 09:00	09/23/16 20:35	1
Cobalt	ND		0.0040	0.00063	mg/L		09/23/16 09:00	09/23/16 20:35	1
Copper	ND		0.010	0.0016	mg/L		09/23/16 09:00	09/23/16 20:35	1
Iron	ND	^	0.050	0.019	mg/L		09/23/16 09:00	09/23/16 20:35	1
Lead	ND		0.010	0.0030	mg/L		09/23/16 09:00	09/23/16 20:35	1
Magnesium	ND		0.20	0.043	mg/L		09/23/16 09:00	09/23/16 20:35	1
Manganese	ND		0.0030	0.00040	mg/L		09/23/16 09:00	09/23/16 20:35	1
Nickel	ND		0.010	0.0013	mg/L		09/23/16 09:00	09/23/16 20:35	1
Potassium	ND		0.50	0.10	mg/L		09/23/16 09:00	09/23/16 20:35	1
Selenium	ND		0.025	0.0087	mg/L		09/23/16 09:00	09/23/16 20:35	1
Silver	ND		0.0060	0.0017	mg/L		09/23/16 09:00	09/23/16 20:35	1
Sodium	ND		1.0	0.32	mg/L		09/23/16 09:00	09/23/16 20:35	1
Thallium	ND		0.020	0.010	mg/L		09/23/16 09:00	09/23/16 20:35	1
Vanadium	ND		0.0050	0.0015	mg/L		09/23/16 09:00	09/23/16 20:35	1
Zinc	ND		0.010	0.0015	mg/L		09/23/16 09:00	09/23/16 20:35	1

Lab Sample ID: LCS 480-321920/2-A
Matrix: Water
Analysis Batch: 322154

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 321920

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	9.43		mg/L		94	80 - 120
Antimony	0.200	0.192		mg/L		96	80 - 120
Arsenic	0.200	0.186		mg/L		93	80 - 120
Barium	0.200	0.193		mg/L		97	80 - 120
Beryllium	0.200	0.194		mg/L		97	80 - 120
Cadmium	0.200	0.181		mg/L		91	80 - 120
Calcium	10.0	9.80		mg/L		98	80 - 120
Chromium	0.200	0.189		mg/L		95	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-321920/2-A
Matrix: Water
Analysis Batch: 322154

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 321920

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.200	0.186		mg/L		93	80 - 120
Copper	0.200	0.186		mg/L		93	80 - 120
Iron	10.0	10.16	^	mg/L		102	80 - 120
Lead	0.200	0.194		mg/L		97	80 - 120
Magnesium	10.0	9.89		mg/L		99	80 - 120
Manganese	0.200	0.192		mg/L		96	80 - 120
Nickel	0.200	0.181		mg/L		91	80 - 120
Potassium	10.0	9.09		mg/L		91	80 - 120
Selenium	0.200	0.194		mg/L		97	80 - 120
Silver	0.0500	0.0508		mg/L		102	80 - 120
Sodium	10.0	9.14		mg/L		91	80 - 120
Thallium	0.200	0.197		mg/L		98	80 - 120
Vanadium	0.200	0.181		mg/L		90	80 - 120
Zinc	0.200	0.195		mg/L		97	80 - 120

Lab Sample ID: 480-106388-4 MS
Matrix: Water
Analysis Batch: 322154

Client Sample ID: GW-20-092216
Prep Type: Total/NA
Prep Batch: 321920

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	0.22		10.0	9.56		mg/L		93	75 - 125
Antimony	ND		0.200	0.192		mg/L		96	75 - 125
Arsenic	0.0064	J	0.200	0.195		mg/L		94	75 - 125
Barium	0.038		0.200	0.220		mg/L		91	75 - 125
Beryllium	ND		0.200	0.194		mg/L		97	75 - 125
Cadmium	ND		0.200	0.181		mg/L		91	75 - 125
Calcium	47.9		10.0	47.95	4	mg/L		0.1	75 - 125
Chromium	ND		0.200	0.187		mg/L		93	75 - 125
Cobalt	ND		0.200	0.189		mg/L		95	75 - 125
Copper	0.0016	J	0.200	0.187		mg/L		93	75 - 125
Lead	0.0043	J	0.200	0.199		mg/L		98	75 - 125
Magnesium	4.7		10.0	13.27		mg/L		86	75 - 125
Manganese	0.091		0.200	0.262		mg/L		85	75 - 125
Nickel	0.0015	J	0.200	0.185		mg/L		92	75 - 125
Potassium	139		10.0	147.3	4	mg/L		85	75 - 125
Selenium	ND		0.200	0.186		mg/L		93	75 - 125
Silver	ND		0.0500	0.0509		mg/L		102	75 - 125
Sodium	42.9		10.0	56.56	4	mg/L		136	75 - 125
Thallium	ND		0.200	0.195		mg/L		98	75 - 125
Vanadium	0.012		0.200	0.192		mg/L		90	75 - 125
Zinc	0.0070	J	0.200	0.203		mg/L		98	75 - 125

Lab Sample ID: 480-106388-4 MS
Matrix: Water
Analysis Batch: 322574

Client Sample ID: GW-20-092216
Prep Type: Total/NA
Prep Batch: 321920

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.26		10.0	10.57		mg/L		103	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-106388-4 MSD
Matrix: Water
Analysis Batch: 322154

Client Sample ID: GW-20-092216
Prep Type: Total/NA
Prep Batch: 321920

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	0.22		10.0	9.84		mg/L		96	75 - 125	3	20
Antimony	ND		0.200	0.194		mg/L		97	75 - 125	1	20
Arsenic	0.0064	J	0.200	0.197		mg/L		95	75 - 125	1	20
Barium	0.038		0.200	0.223		mg/L		92	75 - 125	1	20
Beryllium	ND		0.200	0.198		mg/L		99	75 - 125	2	20
Cadmium	ND		0.200	0.184		mg/L		92	75 - 125	2	20
Calcium	47.9		10.0	46.97	4	mg/L		-10	75 - 125	2	20
Chromium	ND		0.200	0.190		mg/L		95	75 - 125	2	20
Cobalt	ND		0.200	0.192		mg/L		96	75 - 125	1	20
Copper	0.0016	J	0.200	0.190		mg/L		94	75 - 125	2	20
Lead	0.0043	J	0.200	0.203		mg/L		99	75 - 125	2	20
Magnesium	4.7		10.0	13.25		mg/L		85	75 - 125	0	20
Manganese	0.091		0.200	0.278		mg/L		93	75 - 125	6	20
Nickel	0.0015	J	0.200	0.188		mg/L		93	75 - 125	2	20
Potassium	139		10.0	151.1	4	mg/L		124	75 - 125	3	20
Selenium	ND		0.200	0.192		mg/L		96	75 - 125	3	20
Silver	ND		0.0500	0.0514		mg/L		103	75 - 125	1	20
Sodium	42.9		10.0	58.54	4	mg/L		156	75 - 125	3	20
Thallium	ND		0.200	0.198		mg/L		99	75 - 125	1	20
Vanadium	0.012		0.200	0.195		mg/L		91	75 - 125	2	20
Zinc	0.0070	J	0.200	0.212		mg/L		102	75 - 125	4	20

Lab Sample ID: 480-106388-4 MSD
Matrix: Water
Analysis Batch: 322574

Client Sample ID: GW-20-092216
Prep Type: Total/NA
Prep Batch: 321920

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	0.26		10.0	10.69		mg/L		104	75 - 125	1	20

Lab Sample ID: MB 480-322538/1-A
Matrix: Water
Analysis Batch: 322737

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 322538

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		09/27/16 09:13	09/27/16 17:03	1
Antimony	ND		0.020	0.0068	mg/L		09/27/16 09:13	09/27/16 17:03	1
Arsenic	ND		0.015	0.0056	mg/L		09/27/16 09:13	09/27/16 17:03	1
Barium	ND		0.0020	0.00070	mg/L		09/27/16 09:13	09/27/16 17:03	1
Beryllium	ND		0.0020	0.00030	mg/L		09/27/16 09:13	09/27/16 17:03	1
Cadmium	ND		0.0020	0.00050	mg/L		09/27/16 09:13	09/27/16 17:03	1
Calcium	ND		0.50	0.10	mg/L		09/27/16 09:13	09/27/16 17:03	1
Chromium	ND		0.0040	0.0010	mg/L		09/27/16 09:13	09/27/16 17:03	1
Cobalt	ND		0.0040	0.00063	mg/L		09/27/16 09:13	09/27/16 17:03	1
Copper	ND		0.010	0.0016	mg/L		09/27/16 09:13	09/27/16 17:03	1
Iron	ND		0.050	0.019	mg/L		09/27/16 09:13	09/27/16 17:03	1
Lead	0.00310	J	0.010	0.0030	mg/L		09/27/16 09:13	09/27/16 17:03	1
Magnesium	ND		0.20	0.043	mg/L		09/27/16 09:13	09/27/16 17:03	1
Manganese	0.00182	J	0.0030	0.00040	mg/L		09/27/16 09:13	09/27/16 17:03	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-322538/1-A
Matrix: Water
Analysis Batch: 322737

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 322538

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		0.010	0.0013	mg/L		09/27/16 09:13	09/27/16 17:03	1
Potassium	ND		0.50	0.10	mg/L		09/27/16 09:13	09/27/16 17:03	1
Selenium	ND	^	0.025	0.0087	mg/L		09/27/16 09:13	09/27/16 17:03	1
Silver	ND		0.0060	0.0017	mg/L		09/27/16 09:13	09/27/16 17:03	1
Sodium	ND		1.0	0.32	mg/L		09/27/16 09:13	09/27/16 17:03	1
Thallium	ND		0.020	0.010	mg/L		09/27/16 09:13	09/27/16 17:03	1
Vanadium	ND		0.0050	0.0015	mg/L		09/27/16 09:13	09/27/16 17:03	1
Zinc	ND		0.010	0.0015	mg/L		09/27/16 09:13	09/27/16 17:03	1

Lab Sample ID: LCS 480-322538/2-A
Matrix: Water
Analysis Batch: 322737

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322538

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	9.74		mg/L		97	80 - 120
Antimony	0.200	0.195		mg/L		98	80 - 120
Arsenic	0.200	0.195		mg/L		97	80 - 120
Barium	0.200	0.205		mg/L		103	80 - 120
Beryllium	0.200	0.199		mg/L		99	80 - 120
Cadmium	0.200	0.190		mg/L		95	80 - 120
Calcium	10.0	9.48		mg/L		95	80 - 120
Chromium	0.200	0.193		mg/L		97	80 - 120
Cobalt	0.200	0.184		mg/L		92	80 - 120
Copper	0.200	0.197		mg/L		98	80 - 120
Iron	10.0	9.93		mg/L		99	80 - 120
Lead	0.200	0.194		mg/L		97	80 - 120
Magnesium	10.0	9.87		mg/L		99	80 - 120
Manganese	0.200	0.200		mg/L		100	80 - 120
Nickel	0.200	0.188		mg/L		94	80 - 120
Potassium	10.0	9.79		mg/L		98	80 - 120
Silver	0.0500	0.0492		mg/L		98	80 - 120
Sodium	10.0	9.61		mg/L		96	80 - 120
Thallium	0.200	0.192		mg/L		96	80 - 120
Vanadium	0.200	0.190		mg/L		95	80 - 120
Zinc	0.200	0.191		mg/L		96	80 - 120

Lab Sample ID: LCS 480-322538/2-A
Matrix: Water
Analysis Batch: 322948

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322538

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	0.200	0.180		mg/L		90	80 - 120

Lab Sample ID: MB 480-321976/1-B
Matrix: Water
Analysis Batch: 322577

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 322219

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum, Dissolved	ND		0.20	0.060	mg/L		09/24/16 09:15	09/26/16 23:23	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-321976/1-B
Matrix: Water
Analysis Batch: 322577

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 322219

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony, Dissolved	ND		0.020	0.0068	mg/L		09/24/16 09:15	09/26/16 23:23	1
Arsenic, Dissolved	ND		0.015	0.0056	mg/L		09/24/16 09:15	09/26/16 23:23	1
Barium, Dissolved	ND		0.0020	0.00070	mg/L		09/24/16 09:15	09/26/16 23:23	1
Beryllium, Dissolved	ND		0.0020	0.00030	mg/L		09/24/16 09:15	09/26/16 23:23	1
Cadmium, Dissolved	ND		0.0020	0.00050	mg/L		09/24/16 09:15	09/26/16 23:23	1
Calcium, Dissolved	ND		0.50	0.10	mg/L		09/24/16 09:15	09/26/16 23:23	1
Chromium, Dissolved	ND		0.0040	0.0010	mg/L		09/24/16 09:15	09/26/16 23:23	1
Cobalt, Dissolved	ND		0.0040	0.00063	mg/L		09/24/16 09:15	09/26/16 23:23	1
Copper, Dissolved	ND		0.010	0.0016	mg/L		09/24/16 09:15	09/26/16 23:23	1
Iron, Dissolved	ND		0.050	0.019	mg/L		09/24/16 09:15	09/26/16 23:23	1
Lead, Dissolved	ND		0.010	0.0030	mg/L		09/24/16 09:15	09/26/16 23:23	1
Magnesium, Dissolved	ND		0.20	0.043	mg/L		09/24/16 09:15	09/26/16 23:23	1
Manganese, Dissolved	0.00102	J	0.0030	0.00040	mg/L		09/24/16 09:15	09/26/16 23:23	1
Nickel, Dissolved	ND		0.010	0.0013	mg/L		09/24/16 09:15	09/26/16 23:23	1
Potassium, Dissolved	ND		0.50	0.10	mg/L		09/24/16 09:15	09/26/16 23:23	1
Selenium, Dissolved	ND		0.025	0.0087	mg/L		09/24/16 09:15	09/26/16 23:23	1
Silver, Dissolved	ND		0.0060	0.0017	mg/L		09/24/16 09:15	09/26/16 23:23	1
Sodium, Dissolved	0.368	J	1.0	0.32	mg/L		09/24/16 09:15	09/26/16 23:23	1
Thallium, Dissolved	ND		0.020	0.010	mg/L		09/24/16 09:15	09/26/16 23:23	1
Vanadium, Dissolved	ND		0.0050	0.0015	mg/L		09/24/16 09:15	09/26/16 23:23	1
Zinc, Dissolved	0.00233	J	0.010	0.0015	mg/L		09/24/16 09:15	09/26/16 23:23	1

Lab Sample ID: LCS 480-321976/2-B
Matrix: Water
Analysis Batch: 322577

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 322219

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum, Dissolved	10.0	9.85		mg/L		98	80 - 120
Antimony, Dissolved	0.200	0.205		mg/L		102	80 - 120
Arsenic, Dissolved	0.200	0.205		mg/L		103	80 - 120
Barium, Dissolved	0.200	0.208		mg/L		104	80 - 120
Beryllium, Dissolved	0.200	0.206		mg/L		103	80 - 120
Cadmium, Dissolved	0.200	0.200		mg/L		100	80 - 120
Calcium, Dissolved	10.0	9.85		mg/L		99	80 - 120
Chromium, Dissolved	0.200	0.203		mg/L		102	80 - 120
Cobalt, Dissolved	0.200	0.191		mg/L		96	80 - 120
Copper, Dissolved	0.200	0.202		mg/L		101	80 - 120
Iron, Dissolved	10.0	10.23		mg/L		102	80 - 120
Lead, Dissolved	0.200	0.204		mg/L		102	80 - 120
Magnesium, Dissolved	10.0	10.35		mg/L		103	80 - 120
Manganese, Dissolved	0.200	0.206		mg/L		103	80 - 120
Nickel, Dissolved	0.200	0.196		mg/L		98	80 - 120
Potassium, Dissolved	10.0	9.91		mg/L		99	80 - 120
Selenium, Dissolved	0.200	0.200		mg/L		100	80 - 120
Silver, Dissolved	0.0500	0.0487		mg/L		97	80 - 120
Sodium, Dissolved	10.0	10.15		mg/L		101	80 - 120
Thallium, Dissolved	0.200	0.197		mg/L		99	80 - 120
Vanadium, Dissolved	0.200	0.198		mg/L		99	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-321976/2-B
Matrix: Water
Analysis Batch: 322577

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 322219

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc, Dissolved	0.200	0.207		mg/L		104	80 - 120

Lab Sample ID: 480-106388-2 MS
Matrix: Water
Analysis Batch: 322577

Client Sample ID: GW-18R-092216
Prep Type: Dissolved
Prep Batch: 322219

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum, Dissolved	ND		10.0	9.80		mg/L		98	75 - 125
Antimony, Dissolved	ND		0.200	0.215		mg/L		107	75 - 125
Arsenic, Dissolved	0.015		0.200	0.225		mg/L		105	75 - 125
Barium, Dissolved	0.14		0.200	0.341		mg/L		101	75 - 125
Beryllium, Dissolved	ND		0.200	0.205		mg/L		102	75 - 125
Cadmium, Dissolved	ND		0.200	0.205		mg/L		103	75 - 125
Calcium, Dissolved	257		10.0	264.5	4	mg/L		71	75 - 125
Chromium, Dissolved	ND		0.200	0.201		mg/L		101	75 - 125
Cobalt, Dissolved	0.00093	J	0.200	0.197		mg/L		98	75 - 125
Copper, Dissolved	ND		0.200	0.205		mg/L		102	75 - 125
Iron, Dissolved	ND		10.0	10.01		mg/L		100	75 - 125
Lead, Dissolved	ND		0.200	0.209		mg/L		105	75 - 125
Magnesium, Dissolved	47.6		10.0	57.50	4	mg/L		99	75 - 125
Manganese, Dissolved	0.42	B	0.200	0.609		mg/L		97	75 - 125
Nickel, Dissolved	0.0051	J	0.200	0.204		mg/L		100	75 - 125
Potassium, Dissolved	35.3		10.0	44.98		mg/L		97	75 - 125
Selenium, Dissolved	ND		0.200	0.204		mg/L		102	75 - 125
Silver, Dissolved	ND		0.0500	0.0511		mg/L		102	75 - 125
Sodium, Dissolved	18.2	B	10.0	27.80		mg/L		96	75 - 125
Thallium, Dissolved	ND		0.200	0.197		mg/L		99	75 - 125
Vanadium, Dissolved	0.0055		0.200	0.204		mg/L		99	75 - 125
Zinc, Dissolved	0.0094	J B	0.200	0.209		mg/L		100	75 - 125

Lab Sample ID: 480-106388-2 MSD
Matrix: Water
Analysis Batch: 322577

Client Sample ID: GW-18R-092216
Prep Type: Dissolved
Prep Batch: 322219

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum, Dissolved	ND		10.0	9.54		mg/L		95	75 - 125	3	20
Antimony, Dissolved	ND		0.200	0.206		mg/L		103	75 - 125	4	20
Arsenic, Dissolved	0.015		0.200	0.220		mg/L		102	75 - 125	2	20
Barium, Dissolved	0.14		0.200	0.333		mg/L		97	75 - 125	3	20
Beryllium, Dissolved	ND		0.200	0.198		mg/L		99	75 - 125	4	20
Cadmium, Dissolved	ND		0.200	0.199		mg/L		99	75 - 125	3	20
Calcium, Dissolved	257		10.0	258.5	4	mg/L		11	75 - 125	2	20
Chromium, Dissolved	ND		0.200	0.193		mg/L		96	75 - 125	4	20
Cobalt, Dissolved	0.00093	J	0.200	0.190		mg/L		95	75 - 125	3	20
Copper, Dissolved	ND		0.200	0.197		mg/L		99	75 - 125	4	20
Iron, Dissolved	ND		10.0	9.63		mg/L		96	75 - 125	4	20
Lead, Dissolved	ND		0.200	0.201		mg/L		101	75 - 125	4	20
Magnesium, Dissolved	47.6		10.0	55.98	4	mg/L		84	75 - 125	3	20
Manganese, Dissolved	0.42	B	0.200	0.594		mg/L		89	75 - 125	3	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-106388-2 MSD — **Client Sample ID: GW-18R-092216**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 322577 — **Prep Batch: 322219**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nickel, Dissolved	0.0051	J	0.200	0.197		mg/L		96	75 - 125	3	20
Potassium, Dissolved	35.3		10.0	43.67		mg/L		84	75 - 125	3	20
Selenium, Dissolved	ND		0.200	0.192		mg/L		96	75 - 125	6	20
Silver, Dissolved	ND		0.0500	0.0491		mg/L		98	75 - 125	4	20
Sodium, Dissolved	18.2	B	10.0	27.05		mg/L		89	75 - 125	3	20
Thallium, Dissolved	ND		0.200	0.191		mg/L		95	75 - 125	3	20
Vanadium, Dissolved	0.0055		0.200	0.196		mg/L		95	75 - 125	4	20
Zinc, Dissolved	0.0094	J B	0.200	0.201		mg/L		96	75 - 125	3	20

Lab Sample ID: MB 480-323472/1-C — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 324345 — **Prep Batch: 323932**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum, Dissolved	ND		0.20	0.060	mg/L		10/05/16 11:55	10/06/16 16:11	1
Antimony, Dissolved	ND		0.020	0.0068	mg/L		10/05/16 11:55	10/06/16 16:11	1
Barium, Dissolved	ND		0.0020	0.00070	mg/L		10/05/16 11:55	10/06/16 16:11	1
Beryllium, Dissolved	ND		0.0020	0.00030	mg/L		10/05/16 11:55	10/06/16 16:11	1
Cadmium, Dissolved	ND		0.0020	0.00050	mg/L		10/05/16 11:55	10/06/16 16:11	1
Calcium, Dissolved	ND		0.50	0.10	mg/L		10/05/16 11:55	10/06/16 16:11	1
Chromium, Dissolved	ND		0.0040	0.0010	mg/L		10/05/16 11:55	10/06/16 16:11	1
Cobalt, Dissolved	ND		0.0040	0.00063	mg/L		10/05/16 11:55	10/06/16 16:11	1
Copper, Dissolved	ND		0.010	0.0016	mg/L		10/05/16 11:55	10/06/16 16:11	1
Iron, Dissolved	ND		0.050	0.019	mg/L		10/05/16 11:55	10/06/16 16:11	1
Lead, Dissolved	ND		0.010	0.0030	mg/L		10/05/16 11:55	10/06/16 16:11	1
Magnesium, Dissolved	ND		0.20	0.043	mg/L		10/05/16 11:55	10/06/16 16:11	1
Manganese, Dissolved	ND		0.0030	0.00040	mg/L		10/05/16 11:55	10/06/16 16:11	1
Nickel, Dissolved	ND		0.010	0.0013	mg/L		10/05/16 11:55	10/06/16 16:11	1
Potassium, Dissolved	ND		0.50	0.10	mg/L		10/05/16 11:55	10/06/16 16:11	1
Selenium, Dissolved	ND		0.025	0.0087	mg/L		10/05/16 11:55	10/06/16 16:11	1
Silver, Dissolved	ND		0.0060	0.0017	mg/L		10/05/16 11:55	10/06/16 16:11	1
Sodium, Dissolved	ND		1.0	0.32	mg/L		10/05/16 11:55	10/06/16 16:11	1
Thallium, Dissolved	ND		0.020	0.010	mg/L		10/05/16 11:55	10/06/16 16:11	1
Vanadium, Dissolved	ND		0.0050	0.0015	mg/L		10/05/16 11:55	10/06/16 16:11	1
Zinc, Dissolved	0.00234	J	0.010	0.0015	mg/L		10/05/16 11:55	10/06/16 16:11	1

Lab Sample ID: MB 480-323472/1-C — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 324787 — **Prep Batch: 323932**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	ND		0.015	0.0056	mg/L		10/05/16 11:55	10/10/16 09:59	1

Lab Sample ID: LCS 480-323472/2-C — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 324345 — **Prep Batch: 323932**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum, Dissolved	10.0	9.89		mg/L		99	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-323472/2-C
Matrix: Water
Analysis Batch: 324345

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 323932

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony, Dissolved	0.200	0.199		mg/L		100	80 - 120
Arsenic, Dissolved	0.200	0.206		mg/L		103	80 - 120
Barium, Dissolved	0.200	0.207		mg/L		103	80 - 120
Beryllium, Dissolved	0.200	0.204		mg/L		102	80 - 120
Cadmium, Dissolved	0.200	0.197		mg/L		98	80 - 120
Calcium, Dissolved	10.0	10.0		mg/L		100	80 - 120
Chromium, Dissolved	0.200	0.201		mg/L		100	80 - 120
Cobalt, Dissolved	0.200	0.192		mg/L		96	80 - 120
Copper, Dissolved	0.200	0.208		mg/L		104	80 - 120
Iron, Dissolved	10.0	10.41		mg/L		104	80 - 120
Lead, Dissolved	0.200	0.204		mg/L		102	80 - 120
Magnesium, Dissolved	10.0	10.28		mg/L		103	80 - 120
Manganese, Dissolved	0.200	0.202		mg/L		101	80 - 120
Nickel, Dissolved	0.200	0.202		mg/L		101	80 - 120
Potassium, Dissolved	10.0	9.79		mg/L		98	80 - 120
Selenium, Dissolved	0.200	0.200		mg/L		100	80 - 120
Silver, Dissolved	0.0500	0.0496		mg/L		99	80 - 120
Sodium, Dissolved	10.0	10.15		mg/L		101	80 - 120
Thallium, Dissolved	0.200	0.200		mg/L		100	80 - 120
Vanadium, Dissolved	0.200	0.202		mg/L		101	80 - 120
Zinc, Dissolved	0.200	0.206		mg/L		103	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-321966/1-A
Matrix: Water
Analysis Batch: 322371

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 321966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/23/16 10:45	09/23/16 15:03	1

Lab Sample ID: LCS 480-321966/2-A
Matrix: Water
Analysis Batch: 322371

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 321966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00708		mg/L		106	80 - 120

Lab Sample ID: 480-106388-4 MS
Matrix: Water
Analysis Batch: 322371

Client Sample ID: GW-20-092216
Prep Type: Total/NA
Prep Batch: 321966

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00667	0.00705		mg/L		106	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 480-106388-4 MSD — **Client Sample ID: GW-20-092216**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322371 — **Prep Batch: 321966**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00667	0.00700		mg/L		105	80 - 120	1	20

Lab Sample ID: MB 480-322539/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322838 — **Prep Batch: 322539**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/27/16 08:50	09/28/16 08:33	1

Lab Sample ID: LCS 480-322539/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322838 — **Prep Batch: 322539**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00670		mg/L		100	80 - 120

Lab Sample ID: LCSD 480-322539/12-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 322838 — **Prep Batch: 322539**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00667	0.00710		mg/L		106	80 - 120	6	20

Lab Sample ID: MB 480-321976/1-E — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 322838 — **Prep Batch: 322544**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	0.00012	mg/L		09/27/16 08:50	09/28/16 09:25	1

Lab Sample ID: LCS 480-321976/2-E — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 322838 — **Prep Batch: 322544**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury, Dissolved	0.00667	0.00693		mg/L		104	80 - 120

Lab Sample ID: 480-106388-4 MS — **Client Sample ID: GW-20-092216**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 322838 — **Prep Batch: 322544**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury, Dissolved	ND		0.00667	0.00702		mg/L		105	80 - 120

Lab Sample ID: 480-106388-4 MSD — **Client Sample ID: GW-20-092216**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 322838 — **Prep Batch: 322544**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury, Dissolved	ND		0.00667	0.00702		mg/L		105	80 - 120	0	20

QC Sample Results

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-106388-1
SDG: 106388

Lab Sample ID: MB 480-323472/1-E
Matrix: Water
Analysis Batch: 324207

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 324062

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.00020	0.00012	mg/L		10/06/16 08:55	10/06/16 14:08	1

Lab Sample ID: LCS 480-323472/2-E
Matrix: Water
Analysis Batch: 324207

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 324062

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury, Dissolved			0.00667	0.00633		mg/L		95	80 - 120		

GC/MS Semi VOA

Prep Batch: 322132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106388-1	FDUP-GW-20-092216	Total/NA	Water	3510C	
480-106388-2	GW-18R-092216	Total/NA	Water	3510C	
480-106388-3	GW-19-092216	Total/NA	Water	3510C	
480-106388-4	GW-20-092216	Total/NA	Water	3510C	
480-106388-5	GW-21-092216	Total/NA	Water	3510C	
480-106388-6	GW-23-092216	Total/NA	Water	3510C	
MB 480-322132/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-322132/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-106388-4 MS	GW-20-092216	Total/NA	Water	3510C	
480-106388-4 MSD	GW-20-092216	Total/NA	Water	3510C	

Analysis Batch: 322260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106388-1	FDUP-GW-20-092216	Total/NA	Water	8270D LL	322132
480-106388-2	GW-18R-092216	Total/NA	Water	8270D LL	322132
480-106388-3	GW-19-092216	Total/NA	Water	8270D LL	322132
480-106388-4	GW-20-092216	Total/NA	Water	8270D LL	322132
480-106388-5	GW-21-092216	Total/NA	Water	8270D LL	322132
480-106388-6	GW-23-092216	Total/NA	Water	8270D LL	322132
MB 480-322132/1-A	Method Blank	Total/NA	Water	8270D LL	322132
LCS 480-322132/2-A	Lab Control Sample	Total/NA	Water	8270D LL	322132
480-106388-4 MS	GW-20-092216	Total/NA	Water	8270D LL	322132
480-106388-4 MSD	GW-20-092216	Total/NA	Water	8270D LL	322132

Prep Batch: 322923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106542-1	GW-22-092616	Total/NA	Water	3510C	
MB 480-322923/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-322923/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-322923/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 323002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106542-1	GW-22-092616	Total/NA	Water	8270D LL	322923
MB 480-322923/1-A	Method Blank	Total/NA	Water	8270D LL	322923
LCS 480-322923/2-A	Lab Control Sample	Total/NA	Water	8270D LL	322923
LCSD 480-322923/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	322923

Metals

Prep Batch: 321920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106388-1	FDUP-GW-20-092216	Total/NA	Water	3005A	
480-106388-2	GW-18R-092216	Total/NA	Water	3005A	
480-106388-3	GW-19-092216	Total/NA	Water	3005A	
480-106388-4	GW-20-092216	Total/NA	Water	3005A	
480-106388-5	GW-21-092216	Total/NA	Water	3005A	
480-106388-6	GW-23-092216	Total/NA	Water	3005A	
MB 480-321920/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-321920/2-A	Lab Control Sample	Total/NA	Water	3005A	

Metals (Continued)

Prep Batch: 321920 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106388-4 MS	GW-20-092216	Total/NA	Water	3005A	
480-106388-4 MSD	GW-20-092216	Total/NA	Water	3005A	

Prep Batch: 321966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106388-1	FDUP-GW-20-092216	Total/NA	Water	7470A	
480-106388-2	GW-18R-092216	Total/NA	Water	7470A	
480-106388-3	GW-19-092216	Total/NA	Water	7470A	
480-106388-4	GW-20-092216	Total/NA	Water	7470A	
480-106388-5	GW-21-092216	Total/NA	Water	7470A	
480-106388-6	GW-23-092216	Total/NA	Water	7470A	
MB 480-321966/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-321966/2-A	Lab Control Sample	Total/NA	Water	7470A	
480-106388-4 MS	GW-20-092216	Total/NA	Water	7470A	
480-106388-4 MSD	GW-20-092216	Total/NA	Water	7470A	

Filtration Batch: 321976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106388-2	GW-18R-092216	Dissolved	Water	FILTRATION	
480-106388-4	GW-20-092216	Dissolved	Water	FILTRATION	
480-106388-6	GW-23-092216	Dissolved	Water	FILTRATION	
MB 480-321976/1-B	Method Blank	Dissolved	Water	FILTRATION	
MB 480-321976/1-E	Method Blank	Dissolved	Water	FILTRATION	
LCS 480-321976/2-B	Lab Control Sample	Dissolved	Water	FILTRATION	
LCS 480-321976/2-E	Lab Control Sample	Dissolved	Water	FILTRATION	
480-106388-2 MS	GW-18R-092216	Dissolved	Water	FILTRATION	
480-106388-2 MSD	GW-18R-092216	Dissolved	Water	FILTRATION	
480-106388-4 MS	GW-20-092216	Dissolved	Water	FILTRATION	
480-106388-4 MSD	GW-20-092216	Dissolved	Water	FILTRATION	

Analysis Batch: 322154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106388-1	FDUP-GW-20-092216	Total/NA	Water	6010C	321920
480-106388-2	GW-18R-092216	Total/NA	Water	6010C	321920
480-106388-3	GW-19-092216	Total/NA	Water	6010C	321920
480-106388-4	GW-20-092216	Total/NA	Water	6010C	321920
480-106388-5	GW-21-092216	Total/NA	Water	6010C	321920
480-106388-6	GW-23-092216	Total/NA	Water	6010C	321920
MB 480-321920/1-A	Method Blank	Total/NA	Water	6010C	321920
LCS 480-321920/2-A	Lab Control Sample	Total/NA	Water	6010C	321920
480-106388-4 MS	GW-20-092216	Total/NA	Water	6010C	321920
480-106388-4 MSD	GW-20-092216	Total/NA	Water	6010C	321920

Prep Batch: 322219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106388-2	GW-18R-092216	Dissolved	Water	3005A	321976
480-106388-4	GW-20-092216	Dissolved	Water	3005A	321976
480-106388-6	GW-23-092216	Dissolved	Water	3005A	321976
MB 480-321976/1-B	Method Blank	Dissolved	Water	3005A	321976
LCS 480-321976/2-B	Lab Control Sample	Dissolved	Water	3005A	321976
480-106388-2 MS	GW-18R-092216	Dissolved	Water	3005A	321976

Metals (Continued)

Prep Batch: 322219 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106388-2 MSD	GW-18R-092216	Dissolved	Water	3005A	321976

Analysis Batch: 322371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106388-1	FDUP-GW-20-092216	Total/NA	Water	7470A	321966
480-106388-2	GW-18R-092216	Total/NA	Water	7470A	321966
480-106388-3	GW-19-092216	Total/NA	Water	7470A	321966
480-106388-4	GW-20-092216	Total/NA	Water	7470A	321966
480-106388-5	GW-21-092216	Total/NA	Water	7470A	321966
480-106388-6	GW-23-092216	Total/NA	Water	7470A	321966
MB 480-321966/1-A	Method Blank	Total/NA	Water	7470A	321966
LCS 480-321966/2-A	Lab Control Sample	Total/NA	Water	7470A	321966
480-106388-4 MS	GW-20-092216	Total/NA	Water	7470A	321966
480-106388-4 MSD	GW-20-092216	Total/NA	Water	7470A	321966

Prep Batch: 322538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106542-1	GW-22-092616	Total/NA	Water	3005A	
MB 480-322538/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-322538/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 322539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106542-1	GW-22-092616	Total/NA	Water	7470A	
MB 480-322539/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-322539/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 480-322539/12-A	Lab Control Sample Dup	Total/NA	Water	7470A	

Prep Batch: 322544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106388-2	GW-18R-092216	Dissolved	Water	7470A	321976
480-106388-4	GW-20-092216	Dissolved	Water	7470A	321976
480-106388-6	GW-23-092216	Dissolved	Water	7470A	321976
MB 480-321976/1-E	Method Blank	Dissolved	Water	7470A	321976
LCS 480-321976/2-E	Lab Control Sample	Dissolved	Water	7470A	321976
480-106388-4 MS	GW-20-092216	Dissolved	Water	7470A	321976
480-106388-4 MSD	GW-20-092216	Dissolved	Water	7470A	321976

Analysis Batch: 322574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106388-1	FDUP-GW-20-092216	Total/NA	Water	6010C	321920
480-106388-3	GW-19-092216	Total/NA	Water	6010C	321920
480-106388-4	GW-20-092216	Total/NA	Water	6010C	321920
480-106388-5	GW-21-092216	Total/NA	Water	6010C	321920
480-106388-4 MS	GW-20-092216	Total/NA	Water	6010C	321920
480-106388-4 MSD	GW-20-092216	Total/NA	Water	6010C	321920

Analysis Batch: 322577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106388-2	GW-18R-092216	Dissolved	Water	6010C	322219
480-106388-4	GW-20-092216	Dissolved	Water	6010C	322219

Metals (Continued)

Analysis Batch: 322577 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106388-6	GW-23-092216	Dissolved	Water	6010C	322219
MB 480-321976/1-B	Method Blank	Dissolved	Water	6010C	322219
LCS 480-321976/2-B	Lab Control Sample	Dissolved	Water	6010C	322219
480-106388-2 MS	GW-18R-092216	Dissolved	Water	6010C	322219
480-106388-2 MSD	GW-18R-092216	Dissolved	Water	6010C	322219

Analysis Batch: 322737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106542-1	GW-22-092616	Total/NA	Water	6010C	322538
MB 480-322538/1-A	Method Blank	Total/NA	Water	6010C	322538
LCS 480-322538/2-A	Lab Control Sample	Total/NA	Water	6010C	322538

Analysis Batch: 322838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106388-2	GW-18R-092216	Dissolved	Water	7470A	322544
480-106388-4	GW-20-092216	Dissolved	Water	7470A	322544
480-106388-6	GW-23-092216	Dissolved	Water	7470A	322544
480-106542-1	GW-22-092616	Total/NA	Water	7470A	322539
MB 480-321976/1-E	Method Blank	Dissolved	Water	7470A	322544
MB 480-322539/1-A	Method Blank	Total/NA	Water	7470A	322539
LCS 480-321976/2-E	Lab Control Sample	Dissolved	Water	7470A	322544
LCS 480-322539/2-A	Lab Control Sample	Total/NA	Water	7470A	322539
LCSD 480-322539/12-A	Lab Control Sample Dup	Total/NA	Water	7470A	322539
480-106388-4 MS	GW-20-092216	Dissolved	Water	7470A	322544
480-106388-4 MSD	GW-20-092216	Dissolved	Water	7470A	322544

Analysis Batch: 322948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-322538/2-A	Lab Control Sample	Total/NA	Water	6010C	322538

Filtration Batch: 323472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106542-1	GW-22-092616	Dissolved	Water	FILTRATION	
MB 480-323472/1-C	Method Blank	Dissolved	Water	FILTRATION	
MB 480-323472/1-E	Method Blank	Dissolved	Water	FILTRATION	
LCS 480-323472/2-C	Lab Control Sample	Dissolved	Water	FILTRATION	
LCS 480-323472/2-E	Lab Control Sample	Dissolved	Water	FILTRATION	

Prep Batch: 323932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106542-1	GW-22-092616	Dissolved	Water	3005A	323472
MB 480-323472/1-C	Method Blank	Dissolved	Water	3005A	323472
LCS 480-323472/2-C	Lab Control Sample	Dissolved	Water	3005A	323472

Prep Batch: 324062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106542-1	GW-22-092616	Dissolved	Water	7470A	323472
MB 480-323472/1-E	Method Blank	Dissolved	Water	7470A	323472
LCS 480-323472/2-E	Lab Control Sample	Dissolved	Water	7470A	323472

Metals (Continued)

Analysis Batch: 324207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106542-1	GW-22-092616	Dissolved	Water	7470A	324062
MB 480-323472/1-E	Method Blank	Dissolved	Water	7470A	324062
LCS 480-323472/2-E	Lab Control Sample	Dissolved	Water	7470A	324062

Analysis Batch: 324345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-106542-1	GW-22-092616	Dissolved	Water	6010C	323932
MB 480-323472/1-C	Method Blank	Dissolved	Water	6010C	323932
LCS 480-323472/2-C	Lab Control Sample	Dissolved	Water	6010C	323932

Analysis Batch: 324787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-323472/1-C	Method Blank	Dissolved	Water	6010C	323932

Client Sample ID: FDUP-GW-20-092216

Lab Sample ID: 480-106388-1

Date Collected: 09/22/16 09:20

Matrix: Water

Date Received: 09/22/16 12:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			322132	09/24/16 07:09	MCZ	TAL BUF
Total/NA	Analysis	8270D LL		1	322260	09/25/16 16:42	LMW	TAL BUF
Total/NA	Prep	3005A			321920	09/23/16 09:00	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	322154	09/23/16 20:43	TRB	TAL BUF
Total/NA	Prep	3005A			321920	09/23/16 09:00	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	322574	09/26/16 14:21	TRB	TAL BUF
Total/NA	Prep	7470A			321966	09/23/16 10:45	RMZ	TAL BUF
Total/NA	Analysis	7470A		1	322371	09/23/16 15:12	JRK	TAL BUF

Client Sample ID: GW-18R-092216

Lab Sample ID: 480-106388-2

Date Collected: 09/22/16 09:50

Matrix: Water

Date Received: 09/22/16 12:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			322132	09/24/16 07:09	MCZ	TAL BUF
Total/NA	Analysis	8270D LL		10	322260	09/25/16 17:11	LMW	TAL BUF
Dissolved	Filtration	FILTRATION			321976	09/23/16 10:11	RMZ	TAL BUF
Dissolved	Prep	3005A			322219	09/24/16 09:15	MVZ	TAL BUF
Dissolved	Analysis	6010C		1	322577	09/26/16 23:30	LMH	TAL BUF
Total/NA	Prep	3005A			321920	09/23/16 09:00	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	322154	09/23/16 20:46	TRB	TAL BUF
Dissolved	Filtration	FILTRATION			321976	09/23/16 10:11	RMZ	TAL BUF
Dissolved	Prep	7470A			322544	09/27/16 08:50	RMZ	TAL BUF
Dissolved	Analysis	7470A		1	322838	09/28/16 09:28	RMZ	TAL BUF
Total/NA	Prep	7470A			321966	09/23/16 10:45	RMZ	TAL BUF
Total/NA	Analysis	7470A		1	322371	09/23/16 15:14	JRK	TAL BUF

Client Sample ID: GW-19-092216

Lab Sample ID: 480-106388-3

Date Collected: 09/22/16 11:10

Matrix: Water

Date Received: 09/22/16 12:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			322132	09/24/16 07:09	MCZ	TAL BUF
Total/NA	Analysis	8270D LL		5	322260	09/25/16 17:40	LMW	TAL BUF
Total/NA	Prep	3005A			321920	09/23/16 09:00	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	322154	09/23/16 21:01	TRB	TAL BUF
Total/NA	Prep	3005A			321920	09/23/16 09:00	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	322574	09/26/16 14:24	TRB	TAL BUF
Total/NA	Prep	7470A			321966	09/23/16 10:45	RMZ	TAL BUF
Total/NA	Analysis	7470A		1	322371	09/23/16 15:16	JRK	TAL BUF

Client Sample ID: GW-20-092216

Lab Sample ID: 480-106388-4

Date Collected: 09/22/16 08:50

Matrix: Water

Date Received: 09/22/16 12:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			322132	09/24/16 07:09	MCZ	TAL BUF
Total/NA	Analysis	8270D LL		1	322260	09/25/16 18:09	LMW	TAL BUF
Dissolved	Filtration	FILTRATION			321976	09/23/16 10:11	RMZ	TAL BUF
Dissolved	Prep	3005A			322219	09/24/16 09:15	MVZ	TAL BUF
Dissolved	Analysis	6010C		1	322577	09/26/16 23:57	LMH	TAL BUF
Total/NA	Prep	3005A			321920	09/23/16 09:00	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	322154	09/23/16 21:04	TRB	TAL BUF
Total/NA	Prep	3005A			321920	09/23/16 09:00	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	322574	09/26/16 14:27	TRB	TAL BUF
Dissolved	Filtration	FILTRATION			321976	09/23/16 10:11	RMZ	TAL BUF
Dissolved	Prep	7470A			322544	09/27/16 08:50	RMZ	TAL BUF
Dissolved	Analysis	7470A		1	322838	09/28/16 09:31	RMZ	TAL BUF
Total/NA	Prep	7470A			321966	09/23/16 10:45	RMZ	TAL BUF
Total/NA	Analysis	7470A		1	322371	09/23/16 15:17	JRK	TAL BUF

Client Sample ID: GW-21-092216

Lab Sample ID: 480-106388-5

Date Collected: 09/22/16 11:40

Matrix: Water

Date Received: 09/22/16 12:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			322132	09/24/16 07:09	MCZ	TAL BUF
Total/NA	Analysis	8270D LL		5	322260	09/25/16 18:38	LMW	TAL BUF
Total/NA	Prep	3005A			321920	09/23/16 09:00	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	322154	09/23/16 21:25	TRB	TAL BUF
Total/NA	Prep	3005A			321920	09/23/16 09:00	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	322574	09/26/16 14:54	TRB	TAL BUF
Total/NA	Prep	7470A			321966	09/23/16 10:45	RMZ	TAL BUF
Total/NA	Analysis	7470A		1	322371	09/23/16 15:27	JRK	TAL BUF

Client Sample ID: GW-23-092216

Lab Sample ID: 480-106388-6

Date Collected: 09/22/16 10:50

Matrix: Water

Date Received: 09/22/16 12:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			322132	09/24/16 07:09	MCZ	TAL BUF
Total/NA	Analysis	8270D LL		1	322260	09/25/16 19:07	LMW	TAL BUF
Dissolved	Filtration	FILTRATION			321976	09/23/16 10:11	RMZ	TAL BUF
Dissolved	Prep	3005A			322219	09/24/16 09:15	MVZ	TAL BUF
Dissolved	Analysis	6010C		1	322577	09/27/16 00:00	LMH	TAL BUF
Total/NA	Prep	3005A			321920	09/23/16 09:00	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	322154	09/23/16 21:21	TRB	TAL BUF
Dissolved	Filtration	FILTRATION			321976	09/23/16 10:11	RMZ	TAL BUF
Dissolved	Prep	7470A			322544	09/27/16 08:50	RMZ	TAL BUF
Dissolved	Analysis	7470A		1	322838	09/28/16 09:38	RMZ	TAL BUF

Lab Chronicle

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-106388-1
SDG: 106388

Client Sample ID: GW-23-092216

Lab Sample ID: 480-106388-6

Date Collected: 09/22/16 10:50

Matrix: Water

Date Received: 09/22/16 12:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			321966	09/23/16 10:45	RMZ	TAL BUF
Total/NA	Analysis	7470A		1	322371	09/23/16 15:29	JRK	TAL BUF

Client Sample ID: GW-22-092616

Lab Sample ID: 480-106542-1

Date Collected: 09/26/16 11:45

Matrix: Water

Date Received: 09/26/16 12:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			322923	09/28/16 19:53	ARS	TAL BUF
Total/NA	Analysis	8270D LL		5	323002	09/29/16 12:29	LMW	TAL BUF
Dissolved	Filtration	FILTRATION			323472	10/03/16 09:02	BMB	TAL BUF
Dissolved	Prep	3005A			323932	10/05/16 11:55	MVZ	TAL BUF
Dissolved	Analysis	6010C		1	324345	10/06/16 16:28	TRB	TAL BUF
Total/NA	Prep	3005A			322538	09/27/16 09:13	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	322737	09/27/16 17:37	AMH	TAL BUF
Dissolved	Filtration	FILTRATION			323472	10/03/16 09:02	BMB	TAL BUF
Dissolved	Prep	7470A			324062	10/06/16 08:55	RMZ	TAL BUF
Dissolved	Analysis	7470A		1	324207	10/06/16 14:11	RMZ	TAL BUF
Total/NA	Prep	7470A			322539	09/27/16 08:50	RMZ	TAL BUF
Total/NA	Analysis	7470A		1	322838	09/28/16 08:46	RMZ	TAL BUF

Laboratory References:

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

Certification Summary

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-106388-1
SDG: 106388

Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-17

Method Summary

Client: Honeywell International Inc
Project/Site: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-106388-1
SDG: 106388

Method	Method Description	Protocol	Laboratory
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF

Protocol References:

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: 37971 - Buffalo Outer Harbor

TestAmerica Job ID: 480-106388-1
SDG: 106388

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-106388-1	FDUP-GW-20-092216	Water	09/22/16 09:20	09/22/16 12:23
480-106388-2	GW-18R-092216	Water	09/22/16 09:50	09/22/16 12:23
480-106388-3	GW-19-092216	Water	09/22/16 11:10	09/22/16 12:23
480-106388-4	GW-20-092216	Water	09/22/16 08:50	09/22/16 12:23
480-106388-5	GW-21-092216	Water	09/22/16 11:40	09/22/16 12:23
480-106388-6	GW-23-092216	Water	09/22/16 10:50	09/22/16 12:23
480-106542-1	GW-22-092616	Water	09/26/16 11:45	09/26/16 12:10

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Michael Stout	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-86478-9996.1
Client Contact: Mr. John Formoza	Phone: (315) 468-1663	E-Mail: john.schove@testamericainc.com		Page: Page 1 of 1
Company: CH2M Hill, Inc.				Job #:

Address: 1563 Willis Avenue	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Syracuse	TAT Requested (days):		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:
State, Zip: NY, 13204			
Phone: 973-455-4682(Tel)	PO #: 4400032722		
Email: john.formoza@ch2m.com	WO #: 37971 - Buffalo		
Project Name: Honeywell - Buffalo Outer Harbor - 37971 Event Desc: 37971 -	Project #: 48008270		
Site: New York	SSOW#:		

480-106542 CC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 7470A - TOTAL	8270C_LL - 8270LL - Nitrobenzene	6010B, 7470A - DISSOLVED (LAB FILTERED)	Total Number of containers	Special Instructions/Note:
	Preservation Code:						D	N	N		
GW-22-092616	9/26/16	11:45	G	Water			1	2	1		NEEDS TO BE FILTERED IN LAB UNPRESERVED NTU>50
EQBLK-				Water							UNPRESERVED
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
				Water							
EQBLK-				Water							

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Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: Michael Stout	Date/Time: 9/26/2016 1210	Company	Received by:	Date/Time: 9/26/16 1210	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.3 #1

10/11/2016

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Mike Stout	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-86478-9995.1
Client Contact: Mr. John Formoza	Phone: 315 468 1663	E-Mail: john.schove@testamericainc.com		Page: Page 1 of 1
Company: CH2M Hill, Inc.				Job #:

Analysis Requested

Address: 1563 Willis Avenue	Due Date Requested:	
City: Syracuse	TAT Requested (days):	
State, Zip: NY, 13204		
Phone: 973-455-4682(Tel)	PO #: ~~4500073922~~ 4400032722	
Email: john.formoza@ch2m.com	WO #: 37971 - Buffalo	
Project Name: Honeywell - Buffalo Outer Harbor - 37971 Event Desc: 37971 - Bu	Project #: 48008270	
Site: New York	SSOW#:	

Preservation Codes:
A - HCL
B - NaOH
C - Zn
D - Niti
E - Nai
F - Me
G - An
H - As
I - Ice
J - DI
K - EDTA
L - EDA
M - Hexane
N - None
480-106388 COC
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 7470A	8270C_LL - 8270LL - Nitrobenzene	6010B, 7470A - Dissolved (Lab filtered)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
GW-20 MS 092216	09/22/16	0900	G	Water	N		1	2		3	
GW-20 MSD 092216	09/22/16	0910	G	Water	N		1	2		3	
FDUP- GW-20-092216	09/22/16	0920	G	Water	N		1	2		3	
GW-18R- 092216	09/22/16	0950	G	Water	N		1	2	1	4	Need to be filtered @ Lab unpreserved NTU > 50
GW-19- 092216	09/22/16	11:10	G	Water	N		1	2		3	
GW-20- 092216	09/22/16	0850	G	Water	N		1	2	1	4	Need to be filtered @ Lab unpreserved NTU >50
GW-21- 092216	09/22/16	11:40	G	Water	N		1	2		3	
~~GW-22- 092216~~	~~09/22/16~~		~~G~~	~~Water~~	~~N~~						
GW-23- 092216	09/22/16	1050	G	Water	N		1	2	1	4	Need to be filtered @ lab unpreserved NTU >50
EQBLK-			G	Water	N						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Bethany Macera	09/22/2016 @ 12:23	CHEM		9/22/16 1223	TAL BUF
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.6 4.4 #1

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10/11/2016

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 480-106388-1
SDG Number: 106388

Login Number: 106388
List Number: 1
Creator: Kolb, Chris M

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	CH2MHILL
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 480-106388-1
SDG Number: 106388

Login Number: 106542
List Number: 1
Creator: Janish, Carl M

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.	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	CH2M
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	

TABLE 1
SAMPLE AND ANALYTICAL SUMMARY
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2016 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

				Purpose	Nitrobenzene	Metals		Mercury	
				Method	SW8270D LL	SW6010C		SW7470A	
						Total	Dissolved	Total	Dissolved
Field Sample ID	Location ID	SDG	Type	Date					
GW-18R-092216	GW-18R	480-106388-1	REG	9/22/2016	1	22	22	1	1
GW-19-092216	GW-19	480-106388-1	REG	9/22/2016	1	22		1	
GW-20-092216	GW-20	480-106388-1	REG	9/22/2016	1	22	22	1	1
FDUP-GW-20-092216	GW-20	480-106388-1	FD	9/22/2016	1	22		1	
GW-21-092216	GW-21	480-106388-1	REG	9/22/2016	1	22		1	
GW-22-092616	GW-22	480-106388-1	REG	9/26/2016	1	22	22	1	1
GW-23-092216	GW-23	480-106388-1	REG	9/22/2016	1	22	22	1	1

Notes:
FD = Field Duplicate
REG = Field Sample
SDG = Sample Delivery Group

Prepared by:Lakshmi Devi 10/21/2016
Checked by:Suresh 10/21/2016

TABLE 2
PROJECT PRECISION AND ACCURACYGOALS
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2016 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

PARAMETER	QC TEST	ANALYTE	WATER (%R)	WATER (RPD)
Semivolatiles	Surrogate	All BN Compounds	50 - 140	
	LCS	All BN Compounds	50 - 140	
	MS/MSD	All BN Compounds	50 - 140	20
	Field Duplicate	All Target Compounds		50
Inorganics-Metals	LCS	All Target Analytes	80 - 120	
	MS/MSD	All Target Analytes	75 -125	
	Lab Duplicate	All Target Analytes		20
	Field Duplicate	All Target Analytes		20

Notes:
LCS - Laboratory Control Sample
MS/MSD - Matrix spike/ Matrix Spike Duplicate
RPD = Relative Percent Difference
%R = Percent Recovery
QC = Quality Control
QC Limits are based on USEPA Region II Data Validation Guidelines and Project QA/QC Objectives

TABLE 3
VALIDATON ACTIONS SUMMARY
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2016 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

Field Sample ID	Type	SDG	Method	Parameter	Lab Result	Lab Qual	Val Qual	Reason Codes	Units
GW-18R-092216	REG	480-106388-1	SW6010	Zinc, Dissolved	0.0094	J,B	U	BL1	mg/L
GW-20-092216	REG	480-106388-1	SW6010	Zinc, Dissolved	0.0038	J,B	U	BL1	mg/L
GW-23-092216	REG	480-106388-1	SW6010	Zinc, Dissolved	0.010	B	U	BL1	mg/L
GW-20-092216	REG	480-106388-1	SW6010	Barium	0.038		J	FD	mg/L
FDUP-GW-20-092216	FD	480-106388-1	SW6010	Barium	0.027		J	FD	mg/L
GW-20-092216	REG	480-106388-1	SW6010	Calcium	47.9		J	FD	mg/L
FDUP-GW-20-092216	FD	480-106388-1	SW6010	Calcium	27.3		J	FD	mg/L
GW-20-092216	REG	480-106388-1	SW6010	Magnesium	4.7		J	FD	mg/L
FDUP-GW-20-092216	FD	480-106388-1	SW6010	Magnesium	2.5	^	J	FD	mg/L
GW-20-092216	REG	480-106388-1	SW6010	Manganese, Dissolved	0.13	B	J	TD	mg/L
GW-20-092216	REG	480-106388-1	SW6010	Manganese	0.091		J	FD,TD	mg/L
FDUP-GW-20-092216	FD	480-106388-1	SW6010	Manganese	0.052		J	FD	mg/L
GW-20-092216	REG	480-106388-1	SW6010	Vanadium	0.012		J	FD	mg/L
FDUP-GW-20-092216	FD	480-106388-1	SW6010	Vanadium	0.015		J	FD	mg/L

Notes:
BL1= Result qualified due to laboratory blank
FD= Field duplicate exceeds RPD criteria
TD= Total concentration less than dissolved concentration
U= Undetected
J= Estimated

Prepared by:Lakshmi Devi 10/21/2016
Checked by:Suresh 10/21/2016

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2016 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

		Field Sample ID	GW-18R-092216	GW-19-092216	GW-20-092216	FDUP-GW-20-092216	GW-21-092216	GW-22-092616	GW-23-092216
		Location	GW-18R	GW-19	GW-20	GW-20	GW-21	GW-22	GW-23
		Sample Date	09/22/2016	09/22/2016	09/22/2016	09/22/2016	09/22/2016	09/26/2016	09/22/2016
		Sample Delivery Group	480-106388-1	480-106388-1	480-106388-1	480-106388-1	480-106388-1	480-106388-1	480-106388-1
Units	Method	Parameter Name							
µg/L	SW8270	Nitrobenzene	0.61 U	0.31 U	0.061 U	0.062 U	0.31 U	0.31 U	0.061 U
mg/L	SW6010	Aluminum	161	1.1	0.22	0.21	0.060 U	2.7	1.0
mg/L	SW6010	Aluminum, Dissolved	0.060 U		0.060 U			0.060 U	0.060 U
mg/L	SW6010	Antimony	0.018 J	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0095 J	0.053
mg/L	SW6010	Antimony, Dissolved	0.0068 U		0.0068 U			0.0068 U	0.0068 U
mg/L	SW6010	Arsenic	0.41	0.021	0.0064 J	0.0079 J	0.0062 J	0.010 J	0.039
mg/L	SW6010	Arsenic, Dissolved	0.015		0.0095 J			0.0056 U	0.0056 U
mg/L	SW6010	Barium	1.5	0.020	0.038 J	0.027 J	0.032	0.054	0.18
mg/L	SW6010	Barium, Dissolved	0.14		0.040			0.036	0.12
mg/L	SW6010	Beryllium	0.010	0.00030 U	0.00030 U	0.00030 U	0.00030 U	0.00030 U	0.00030 U
mg/L	SW6010	Beryllium, Dissolved	0.00030 U		0.00088 J			0.00030 U	0.00030 U
mg/L	SW6010	Cadmium	0.014	0.00058 J	0.00050 U	0.00050 U	0.00050 U	0.00085 J	0.0012 J
mg/L	SW6010	Cadmium, Dissolved	0.00050 U		0.00086 J			0.00050 U	0.00050 U
mg/L	SW6010	Calcium	934	59.9	47.9 J	27.3 J	31.8	363	245
mg/L	SW6010	Calcium, Dissolved	257		52.8			356	239
mg/L	SW6010	Chromium	0.38	0.0044	0.0010 U	0.0010 U	0.0010 U	0.0069	0.0085
mg/L	SW6010	Chromium, Dissolved	0.0010 U		0.0010 U			0.0010 U	0.0010 U
mg/L	SW6010	Cobalt	0.15	0.00063 U	0.00063 U	0.00063 U	0.00063 U	0.0036 J	0.0013 J
mg/L	SW6010	Cobalt, Dissolved	0.00093 J		0.00063 U			0.0025 J	0.00063 U
mg/L	SW6010	Copper	0.55	0.052	0.0016 J	0.0019 J	0.0016 U	0.032	0.22
mg/L	SW6010	Copper, Dissolved	0.0016 U		0.0016 U			0.011	0.0016 U
mg/L	SW6010	Iron	251	0.58	0.26	0.28	0.75	10.6	25.3
mg/L	SW6010	Iron, Dissolved	0.019 U		0.062			0.019 U	0.019 U
mg/L	SW6010	Lead	2.2	0.023	0.0043 J	0.0050 J	0.0030 U	0.030	0.86
mg/L	SW6010	Lead, Dissolved	0.0030 U		0.0030 U			0.0030 U	0.0030 U
mg/L	SW6010	Magnesium	234	0.74	4.7 J	2.5 J	5.7	179	53.2
mg/L	SW6010	Magnesium, Dissolved	47.6		5.8			179	52.9
mg/L	SW6010	Manganese	8.6	0.0082	0.091 J	0.052 J	0.0094	1.4	0.57
mg/L	SW6010	Manganese, Dissolved	0.42		0.13 J			1.2	0.47
mg/L	SW6010	Nickel	0.38	0.0062 J	0.0015 J	0.0013 U	0.0013 U	0.015	0.0064 J
mg/L	SW6010	Nickel, Dissolved	0.0051 J		0.0013 U			0.015	0.0031 J
mg/L	SW6010	Potassium	58.8	421	139	135	16.4	44.8	50.9
mg/L	SW6010	Potassium, Dissolved	35.3		137			44.6	53.4
mg/L	SW6010	Selenium	0.11	0.013 J	0.0087 U	0.0087 U	0.0087 U	0.0087 U	0.011 J
mg/L	SW6010	Selenium, Dissolved	0.0087 U		0.0087 U			0.0087 U	0.0087 U
mg/L	SW6010	Silver	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0017 U	0.0020 J	0.0017 U
mg/L	SW6010	Silver, Dissolved	0.0017 U		0.0017 U			0.0017 U	0.0017 U
mg/L	SW6010	Sodium	16.5	32.8	42.9	47.0	12.0	72.9	20.6
mg/L	SW6010	Sodium, Dissolved	18.2		38.9			75.5	21.9
mg/L	SW6010	Thallium	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
mg/L	SW6010	Thallium, Dissolved	0.010 U		0.010 U			0.010 U	0.010 U
mg/L	SW6010	Vanadium	0.39	0.035	0.012 J	0.015 J	0.0027 J	0.0047 J	0.020
mg/L	SW6010	Vanadium, Dissolved	0.0055		0.0093			0.0015 U	0.0015 U

TABLE 4
FINAL RESULTS
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2016 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

		Field Sample ID	GW-18R-092216	GW-19-092216	GW-20-092216	FDUP-GW-20-092216	GW-21-092216	GW-22-092616	GW-23-092216
		Location	GW-18R	GW-19	GW-20	GW-20	GW-21	GW-22	GW-23
		Sample Date	09/22/2016	09/22/2016	09/22/2016	09/22/2016	09/22/2016	09/26/2016	09/22/2016
		Sample Delivery Group	480-106388-1	480-106388-1	480-106388-1	480-106388-1	480-106388-1	480-106388-1	480-106388-1
Units	Method	Parameter Name							
mg/L	SW6010	Zinc	9.5	0.0099 J	0.0070 J	0.0093 J	0.0083 J	0.14	0.11
mg/L	SW6010	Zinc, Dissolved	0.0094 U		0.0038 U			0.13	0.010 U
mg/L	SW7470	Mercury	0.012	0.00063	0.00012 U	0.00012 U	0.00012 U	0.00012 U	0.00057
mg/L	SW7470	Mercury, Dissolved	0.00012 U		0.00012 U			0.00012 U	0.00012 U

Notes:
U = Undetected
J = Estimated

Prepared by:Lakshmi Devi 10/21/2016
Checked by:Suresh 10/21/2016

TABLE 5
FIELD DUPLICATE RESULT COMPARISON
DATA VALIDATION SUMMARY REPORT
SEPTEMBER 2016 GROUNDWATER
HONEYWELL BUFFALO OUTER HARBOR
BUFFALO, NEW YORK

Method	Units	Paramerter	GW-20-092216	FDUP-GW-20-092216	RPD	RL	5x RL	both results >5x RL	both results <5x RL within +/- RL	pass/fail
SW6010	mg/L	Aluminum	0.22	0.21	5	0.2	1	No	Yes	Pass
SW6010	mg/L	Antimony	0.0068	0.0068	NA	0.02	0.1	NA	NA	Pass
SW6010	mg/L	Arsenic	0.0064	0.0079	NA	0.015	0.075	NA	NA	Pass
SW6010	mg/L	Barium	0.038	0.027	34	0.002	0.01	Yes	No	Fail
SW6010	mg/L	Beryllium	0.0003	0.0003	NA	0.002	0.01	NA	NA	Pass
SW6010	mg/L	Cadmium	0.0005	0.0005	NA	0.002	0.01	NA	NA	Pass
SW6010	mg/L	Calcium	47.9	27.3	55	0.5	2.5	Yes	No	Fail
SW6010	mg/L	Chromium	0.001	0.001	NA	0.004	0.02	NA	NA	Pass
SW6010	mg/L	Cobalt	0.00063	0.00063	NA	0.004	0.02	NA	NA	Pass
SW6010	mg/L	Copper	0.0016	0.0019	NA	0.01	0.05	NA	NA	Pass
SW6010	mg/L	Iron	0.26	0.28	7	0.05	0.25	Yes	No	Pass
SW6010	mg/L	Lead	0.0043	0.005	NA	0.01	0.05	NA	NA	Pass
SW6010	mg/L	Magnesium	4.7	2.5	61	0.2	1	Yes	No	Fail
SW6010	mg/L	Manganese	0.091	0.052	55	0.003	0.015	Yes	No	Fail
SW6010	mg/L	Nickel	0.0015	0.0013	NA	0.01	0.05	NA	NA	Pass
SW6010	mg/L	Potassium	139	135	3	0.5	2.5	Yes	No	Pass
SW6010	mg/L	Selenium	0.0087	0.0087	NA	0.025	0.125	NA	NA	Pass
SW6010	mg/L	Silver	0.0017	0.0017	NA	0.006	0.03	NA	NA	Pass
SW6010	mg/L	Sodium	42.9	47	9	1	5	Yes	No	Pass
SW6010	mg/L	Thallium	0.01	0.01	NA	0.02	0.1	NA	NA	Pass
SW6010	mg/L	Vanadium	0.012	0.015	-22	0.005	0.025	No	Yes	Fail
SW6010	mg/L	Zinc	0.007	0.0093	NA	0.01	0.05	NA	NA	Pass
SW7470	mg/L	Mercury	0.00012	0.00012	NA	0.0002	0.001	NA	NA	Pass
SW8270	ug/L	Nitrobenzene	0.061	0.062	NA	0.47	2.35	NA	NA	Pass

Notes:
NA = Not Applicable
ND = Not Detected
RL = Reporting Limit
RPD = Relative Percent Difference

Prepared by:Lakshmi Devi 10/21/2016
Checked by:Suresh 10/21/2016

Attachment B.6 Site Inspection Forms

Site Inspection Form

Site Name: Buffalo Outer Harbor
Project Number: 37971
Date: 10/6/2014

Weather: Overcast Breezy cool Temperatures in the 50's.
Assessment by: Mike Stout and Patrick Higgins

Yes	No	N/A	
			A. Security
☒	☐	☐	1. Does fence exist? _____
☐	☐	☒	2. Is there a breach in fence? _____
☐	☐	☒	3. Locks on gate? _____
☐	☐	☒	4. Posted signs? _____
☐	☒	☐	5. Signs of trespassers/vandalism? _____
			6. Other _____
			B. General Site Conditions
☐	☒	☐	1. Vegetation stress? _____
☐	☒	☐	2. Mowing required? Mowed week of September 12th 2014
☒	☐	☐	3. Access road drivable? _____
☐	☒	☐	4. Odors? _____
			5. Other _____
			C. Cap Inspection
☐	☒	☐	1. Exposed waste? _____
☒	☐	☐	2. Side slope stable? _____
☐	☒	☐	3. Erosion? _____
☐	☒	☐	4. Leachate seeps (discolored vegetation)? _____
☐	☒	☐	5. Synthetic liner exposed? _____
☐	☒	☐	6. Bare spots? _____
☐	☒	☐	7. Presence of burrowing animals? _____
☐	☒	☐	8. Deep rooted vegetation? _____
☐	☒	☐	9. Cracking? _____
☐	☒	☐	10. Ponding water? _____
☐	☒	☐	11. Evidence of methane seeps? _____
			12. Other _____
			D. Surface Water
☐	☐	☒	1. Obstruction of flow ditches? _____
☐	☐	☒	2. Erosion of ditches? _____
☐	☐	☒	3. Silt & erosion control? _____
☐	☐	☒	4. Culverts in good condition? _____
☐	☐	☒	5. Evidence of overflow or uncontrolled flow? _____
☐	☐	☒	6. Outfalls in good condition? _____
☐	☐	☒	7. Sedimentation basin/ponds secure? _____
			8. Other _____
			E. Methane Gas Control
☐	☒	☐	1. Does one exist? _____

CH2MHILL

Site Inspection Form

Yes	No	N/A	
☐	☐	☒	2. Is system active or passive? _____
☐	☐	☒	3. Permanent methane gas probes? _____
☐	☐	☒	4. Locks on monitoring wells? _____
☐	☐	☒	5. Vents in working order? _____
☐	☐	☒	6. Well seals in place? _____
☐	☐	☒	7. Methane levels within LEL limits? _____
☐	☐	☒	8. Monitoring reports current?
			9. Other _____

F. Leachate Collection System

☐	☒	☐	1. Does one exist? _____
			2. Collection method:
☐	☐	☒	a. Sump? _____
☐	☐	☒	b. Well point? _____
☐	☐	☒	c. Earthen basin/pond? _____
☐	☐	☒	d. Structure secured? _____
			e. Other _____
			3. Pumping system:
☐	☐	☒	a. Automatic? _____
☐	☐	☒	b. Manual? _____
☐	☐	☒	c. Mechanically operable? _____
☐	☐	☒	d. Leaks/failures? _____
			4. Disposals:
☐	☐	☒	a. Onsite pretreatment/treatment? _____
☐	☐	☒	b. Surface discharge? (NPDES/SPDES) _____
☐	☐	☒	c. POTW – hardpiped? _____
☐	☐	☒	d. Quick disconnect caps in place? _____
			5. Transportation (if any):
☐	☐	☒	a. Chemicals? _____
☐	☐	☒	b. Filter cake? _____
☐	☐	☒	6. Ancillary equipment in good condition? (Pipes, valves, pumps, vaults, instruments and etc.) _____
☐	☐	☒	7. Monitoring reports current? _____
			8. Other _____

G. Groundwater Monitoring & Recovery Wells (if any)

☒	☐	☐	1. Locks on wells? _____
☒	☐	☐	2. Wells in good condition? _____
☒	☐	☐	3. Well seals in good condition? _____
☒	☐	☐	4. Access to wells? _____
☒	☐	☐	5. Monitoring reports current? _____
			6. Other _____

Site Inspection Form

Yes	No	N/A	
			H. Treatment Plant
☐	☐	☒	1. Building in good condition? (Doors, windows, wells, roof) _____
☐	☐	☒	2. Visual tank inspection performed? _____
☐	☐	☒	3. Visual inspection of pipes, valves, fittings etc.? _____
☐	☐	☒	4. Pump operation/inspection performed? _____
☐	☐	☒	5. Instruments operation/calibration? _____
☐	☐	☒	6. Mixer operation/inspection? _____
☐	☐	☒	7. Proper personal protection equipment? _____
☐	☐	☒	8. Air compressor system functioning properly? _____
☐	☐	☒	9. Filter press inspected? _____
☐	☐	☒	10. Emergency generator functioning properly? _____
			I. Polymeric Marine Mattress (PMM)
☐	☐	☒	1. Damage due to burrowing animals? _____
☐	☐	☒	2. Damage due ice and/or ice flowages? _____
☐	☐	☒	3. Impacts or damage due to the periodic dredging of the Buffalo River? _____
☐	☐	☒	4. Impacts or damage due to navigation activities in the Buffalo River? _____
☐	☐	☒	5. Establishment of woody plant growth causing displacement or stress on the system? _____
☐	☐	☒	6. Areas of settlement or displacement of the system? _____
☐	☐	☒	7. Erosion at the upstream and downstream limits of the system? _____
☐	☐	☒	8. Damage to the stone infill adjacent to Outfall #006 and the concrete wall/sheet pile along the upstream limit of the system? _____
☐	☐	☒	9. Damage to the stone infill within the marine mattresses? _____
☐	☐	☒	10. Damage to the general integrity of the system (Look for splits, cuts and gaps)? _____

J. General Comments

Mike Stout and Patrick Higgins visited site on October 6th, 2014. Pat H. and Mike S. measured PZ wells depth to water and measured the total depth of wells. The measurements were entered in the operations maintenance journal.

Patrick C. Higgins 10/16/2014

Site Inspection Form

Site Name: Buffalo Outer Harbor
Project Number: 37971
Date: 10/14/2015

Weather: Overcast Breezy cool Temperatures in the 50's.
Assessment by: Mike Stout and Bethany Macera

Yes	No	N/A	
			A. Security
☒	☐	☐	1. Does fence exist? _____
☐	☐	☒	2. Is there a breach in fence? _____
☐	☐	☒	3. Locks on gate? _____
☐	☐	☒	4. Posted signs? _____
☐	☒	☐	5. Signs of trespassers/vandalism? _____
			6. Other _____
			B. General Site Conditions
☐	☒	☐	1. Vegetation stress? _____
☐	☒	☐	2. Mowing required? Mowed week of September 14th 2015
☒	☐	☐	3. Access road drivable? _____
☐	☒	☐	4. Odors? _____
			5. Other _____
			C. Cap Inspection
☐	☒	☐	1. Exposed waste? _____
☒	☐	☐	2. Side slope stable? _____
☐	☒	☐	3. Erosion? _____
☐	☒	☐	4. Leachate seeps (discolored vegetation)? _____
☐	☒	☐	5. Synthetic liner exposed? _____
☐	☒	☐	6. Bare spots? _____
☐	☒	☐	7. Presence of burrowing animals? _____
☐	☒	☐	8. Deep rooted vegetation? _____
☐	☒	☐	9. Cracking? _____
☐	☒	☐	10. Ponding water? _____
☐	☒	☐	11. Evidence of methane seeps? _____
			12. Other _____
			D. Surface Water
☐	☐	☒	1. Obstruction of flow ditches? _____
☐	☐	☒	2. Erosion of ditches? _____
☐	☐	☒	3. Silt & erosion control? _____
☐	☐	☒	4. Culverts in good condition? _____
☐	☐	☒	5. Evidence of overflow or uncontrolled flow? _____
☐	☐	☒	6. Outfalls in good condition? _____
☐	☐	☒	7. Sedimentation basin/ponds secure? _____
			8. Other _____
			E. Methane Gas Control
☐	☒	☐	1. Does one exist? _____

Site Inspection Form

Yes	No	N/A	
☐	☐	☒	2. Is system active or passive? _____
☐	☐	☒	3. Permanent methane gas probes? _____
☐	☐	☒	4. Locks on monitoring wells? _____
☐	☐	☒	5. Vents in working order? _____
☐	☐	☒	6. Well seals in place? _____
☐	☐	☒	7. Methane levels within LEL limits? _____
☐	☐	☒	8. Monitoring reports current?
			9. Other _____

F. Leachate Collection System

☐	☒	☐	1. Does one exist? _____
			2. Collection method:
☐	☐	☒	a. Sump? _____
☐	☐	☒	b. Well point? _____
☐	☐	☒	c. Earthen basin/pond? _____
☐	☐	☒	d. Structure secured? _____
			e. Other _____
			3. Pumping system:
☐	☐	☒	a. Automatic? _____
☐	☐	☒	b. Manual? _____
☐	☐	☒	c. Mechanically operable? _____
☐	☐	☒	d. Leaks/failures? _____
			4. Disposals:
☐	☐	☒	a. Onsite pretreatment/treatment? _____
☐	☐	☒	b. Surface discharge? (NPDES/SPDES) _____
☐	☐	☒	c. POTW – hardpiped? _____
☐	☐	☒	d. Quick disconnect caps in place? _____
			5. Transportation (if any):
☐	☐	☒	a. Chemicals? _____
☐	☐	☒	b. Filter cake? _____
☐	☐	☒	6. Ancillary equipment in good condition? (Pipes, valves, pumps, vaults, instruments and etc.) _____
☐	☐	☒	7. Monitoring reports current? _____
			8. Other _____

G. Groundwater Monitoring & Recovery Wells (if any)

☒	☐	☐	1. Locks on wells? _____
☒	☐	☐	2. Wells in good condition? _____
☒	☐	☐	3. Well seals in good condition? _____
☒	☐	☐	4. Access to wells? _____
☒	☐	☐	5. Monitoring reports current? _____
			6. Other _____

Site Inspection Form

Yes	No	N/A	
			H. Treatment Plant
☐	☐	☒	1. Building in good condition? (Doors, windows, wells, roof) _____
☐	☐	☒	2. Visual tank inspection performed? _____
☐	☐	☒	3. Visual inspection of pipes, valves, fittings etc.? _____
☐	☐	☒	4. Pump operation/inspection performed? _____
☐	☐	☒	5. Instruments operation/calibration? _____
☐	☐	☒	6. Mixer operation/inspection? _____
☐	☐	☒	7. Proper personal protection equipment? _____
☐	☐	☒	8. Air compressor system functioning properly? _____
☐	☐	☒	9. Filter press inspected? _____
☐	☐	☒	10. Emergency generator functioning properly? _____
			I. Polymeric Marine Mattress (PMM)
☐	☐	☒	1. Damage due to burrowing animals? _____
☐	☐	☒	2. Damage due ice and/or ice flowages? _____
☐	☐	☒	3. Impacts or damage due to the periodic dredging of the Buffalo River? _____
☐	☐	☒	4. Impacts or damage due to navigation activities in the Buffalo River? _____
☐	☐	☒	5. Establishment of woody plant growth causing displacement or stress on the system? _____
☐	☐	☒	6. Areas of settlement or displacement of the system? _____
☐	☐	☒	7. Erosion at the upstream and downstream limits of the system? _____
☐	☐	☒	8. Damage to the stone infill adjacent to Outfall #006 and the concrete wall/sheet pile along the upstream limit of the system? _____
☐	☐	☒	9. Damage to the stone infill within the marine mattresses? _____
☐	☐	☒	10. Damage to the general integrity of the system (Look for splits, cuts and gaps)? _____

J. General Comments

Mike Stout and Bethany Macera visited site on October 14th, 2015. Bethany M.. and Mike S. measured PZ wells depth to water and measured the total depth of wells. The measurements were entered in the operations maintenance journal.

Patricia Hopkins 10/15/2015

Site Inspection Form

Site Name: Buffalo Outer Harbor Weather: Sunny
Project Number: 37972 Assessment by: John Formozat
Date: 9/20/16

Yes	No	N/A	
			A. Security
☒	☐	☐	1. Does fence exist? _____
☐	☐	☒	2. Is there a breach in fence? _____
☐	☐	☒	3. Locks on gate? _____
☐	☐	☒	4. Posted signs? _____
☐	☒	☐	5. Signs of trespassers/vandalism? _____
			6. Other _____
			B. General Site Conditions
☐	☒	☐	1. Vegetation stress? _____
☐	☒	☐	2. Mowing required? Mowed 9/19/16
☒	☐	☐	3. Access road drivable? _____
☐	☒	☐	4. Odors? _____
			5. Other _____
			C. Cap Inspection
☐	☒	☐	1. Exposed waste? _____
☒	☐	☐	2. Side slope stable? _____
☐	☒	☐	3. Erosion? _____
☐	☒	☐	4. Leachate seeps (discolored vegetation)? _____
☐	☒	☐	5. Synthetic liner exposed? _____
☐	☒	☐	6. Bare spots? _____
☐	☒	☐	7. Presence of burrowing animals? _____
☐	☒	☐	8. Deep rooted vegetation? _____
☐	☒	☐	9. Cracking? _____
☐	☒	☐	10. Ponding water? _____
☐	☒	☐	11. Evidence of methane seeps? _____
			12. Other _____
			D. Surface Water
☐	☐	☒	1. Obstruction of flow ditches? _____
☐	☐	☒	2. Erosion of ditches? _____
☐	☐	☒	3. Silt & erosion control? _____
☐	☐	☒	4. Culverts in good condition? _____
☐	☐	☒	5. Evidence of overflow or uncontrolled flow? _____
☐	☐	☒	6. Outfalls in good condition? _____
☐	☐	☒	7. Sedimentation basin/ponds secure? _____
			8. Other _____
			E. Methane Gas Control
☐	☐	☒	1. Does one exist? _____

Site Inspection Form

Yes	No	N/A	
☐	☐	☒	2. Is system active or passive? _____
☐	☐	☒	3. Permanent methane gas probes? _____
☐	☐	☒	4. Locks on monitoring wells? _____
☐	☐	☒	5. Vents in working order? _____
☐	☐	☒	6. Well seals in place? _____
☐	☐	☒	7. Methane levels within LEL limits? _____
☐	☐	☒	8. Monitoring reports current?
			9. Other _____
			F. Leachate Collection System
☐	☒	☐	1. Does one exist? _____
			2. Collection method:
☐	☐	☒	a. Sump? _____
☐	☐	☒	b. Well point? _____
☐	☐	☒	c. Earthen basin/pond? _____
☐	☐	☒	d. Structure secured? _____
			e. Other _____
			3. Pumping system:
☐	☐	☒	a. Automatic? _____
☐	☐	☒	b. Manual? _____
☐	☐	☒	c. Mechanically operable? _____
☐	☐	☒	d. Leaks/failures? _____
			4. Disposals:
☐	☐	☒	a. Onsite pretreatment/treatment? _____
☐	☐	☒	b. Surface discharge? (NPDES/SPDES) _____
☐	☐	☒	c. POTW – hardpiped? yes
☐	☐	☒	d. Quick disconnect caps in place? _____
			5. Transportation (if any):
☐	☐	☒	a. Chemicals? _____
☐	☐	☒	b. Filter cake? _____
☐	☐	☒	6. Ancillary equipment in good condition? (Pipes, valves, pumps, vaults, instruments and etc.) _____
☐	☐	☒	7. Monitoring reports current? _____
			8. Other _____
			G. Groundwater Monitoring & Recovery Wells (if any)
☒	☐	☐	1. Locks on wells? _____
☒	☐	☐	2. Wells in good condition? _____
☒	☐	☐	3. Well seals in good condition? _____
☒	☐	☐	4. Access to wells? _____
☒	☐	☐	5. Monitoring reports current? _____
			6. Other _____

Site Inspection Form

Yes	No	N/A	
			H. Treatment Plant
☐	☐	☒	1. Building in good condition? (Doors, windows, wells, roof) _____
☐	☐	☒	2. Visual tank inspection performed? _____
☐	☐	☒	3. Visual inspection of pipes, valves, fittings etc.? _____
☐	☐	☒	4. Pump operation/inspection performed? _____
☐	☐	☒	5. Instruments operation/calibration? _____
☐	☐	☒	6. Mixer operation/inspection? _____
☐	☐	☒	7. Proper personal protection equipment? _____
☐	☐	☒	8. Air compressor system functioning properly? _____
☐	☐	☒	9. Filter press inspected? _____
☐	☐	☒	10. Emergency generator functioning properly? _____
			I. Polymeric Marine Mattress (PMM)
☐	☐	☒	1. Damage due to burrowing animals? _____
☐	☐	☒	2. Damage due ice and/or ice flowages? _____
☐	☐	☒	3. Impacts or damage due to the periodic dredging of the Buffalo River? _____
☐	☐	☒	4. Impacts or damage due to navigation activities in the Buffalo River? _____
☐	☐	☒	5. Establishment of woody plant growth causing displacement or stress on the system? _____
☐	☐	☒	6. Areas of settlement or displacement of the system? _____
☐	☐	☒	7. Erosion at the upstream and downstream limits of the system? _____
☐	☐	☒	8. Damage to the stone infill adjacent to Outfall #006 and the concrete wall/sheet pile along the upstream limit of the system? _____
☐	☐	☒	9. Damage to the stone infill within the marine mattresses? _____
☐	☐	☒	10. Damage to the general integrity of the system (Look for splits, cuts and gaps)? _____

J. General Comments

John W Formoza

September 21, 2016