



HEALTH, SAFETY, ENVIRONMENTAL, PRODUCT STEWARDSHIP AND SUSTAINABILITY

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July 10, 2021

Mr. Moshood Oduwole
EPA Project Coordinator
RCRA Operations Branch
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Mr. Edward M. Dexter
Administrator
Solid Waste Program
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230-1719

Re: Honeywell Baltimore Inner Harbor Site, Second Quarter 2021 Progress Report, No. 127

Dear Messrs. Oduwole and Dexter:

Please find enclosed Quarterly Progress Report No. 127 for the Honeywell Baltimore Inner Harbor (BIH) Site. The report provides the project status and results of environmental monitoring for the period of April 1, 2021, through June 30, 2021, pursuant to Article V, paragraph 3, of the Consent Decree.

Corrective Measures Implementation (CMI)

A. Dismantlement: None.

B. CMI Design: CMI design was completed in 2002.

C. CMI Maintenance

Refer to the *Baltimore Inner Harbor HMS Groundwater Gradient Monitoring Quarterly Report No. 127, Second Quarter 2021*, Section 1.5.2, for a complete list of maintenance repairs. Following are the major repairs performed during the second quarter:

- May 18, 2021—the ultrasonic level sensor for inner piezometer 3 was replaced.
- May 20, 2021—the piezometer level control alarm wiring in vault 9 was repaired.
- May 25, 2021—the pressure indicator for vault 5 was repaired.
- May 25, 2021—the ground fault circuit interrupters in vaults 3 and 4 were replaced.
- May 28, 2021—the air solenoid valve and pressure indicator transmitter in Vault 5 were replaced.
- June 21, 2021—the leak detection system in vault 7 was reset; well 1S was inspected for low-flow pumping issues.
- June 28, 2021—the leak detection control unit was replaced in vault 7.
- June 28, 2021—the control wiring terminations were tightened in vault 7 and vault 11.

D. Redevelopment

Construction of the Wills Wharf office and hotel building began in the second quarter of 2018 and was completed in the fourth quarter of 2020. Jacobs is monitoring the redevelopment activities and providing technical support to

ensure uninterrupted operation of remedial components and continuing compliance of the HMS with the Consent Decree performance criteria.

Following are the major redevelopment activities performed during the second quarter:

- Karma Farms Hoop houses removed in April in preparation for upcoming development.

E. Community Events—Redevelopment

- Beatty Development met with the Fells Point Task Force, neighboring Caroline condominiums, 1405 Point residents, 1305 Dock Street residents, and major office tenants to in Q2 to discuss future upcoming redevelopment on Parcel's 3 & 4 as well as the Open Space Parcel.

Agency Correspondence

- April 15, 2021—Emails from Moshood Oduwole (EPA) and from Edward Dexter (MDE) (respectively) to Maria Kaouris (Honeywell) approving, with conditions, Honeywell's request to discontinue sediment monitoring. Acknowledgment email from Maria Kaouris.

Attachment 1—Operation and Maintenance Schedule for Third Quarter 2021

Attachment 2—Environmental Media Monitoring Plan (EMMP) Report. Surface water, groundwater, and drainage layer sampling occurred during the second quarter of 2021.

Attachment 3—Head Maintenance System (HMS) Groundwater Gradient Performance Report. The second quarter HMS data document compliance with the groundwater gradient performance standard.

Changes in CMI Reporting

There have been no changes in CMI reporting this quarter.

Problems or Potential Problems Encountered

Water displaced by the Exelon pile driving continues to be slowly released from the upper soil layers and extracted from Vaults 1 and 12. The yield from the formation is approaching de minimis flow.

Copies of Daily Reports, Inspections, and Monitoring Data

The surface water, groundwater, and drainage layer data for the second quarter of 2021 are presented in the attachment to the EMMP report. Individual sample detection limits and electronic copies of the analytical results are also provided in the electronic attachments. The HMS gradient performance data for the reporting period include performance charts, piezometer data, and pumping data. The charts and supporting data are provided in the folder titled "Backup Data" on the quarterly report CD-ROM.

Results for the inspections performed during this quarter are stored onsite.

Projected Work for Third Quarter 2021

A. Maintenance

- Annual sitewide topographic survey will be performed.
- Surface water samples will be collected.
- Sitewide PLC upgrade will commence.

B. Redevelopment: None.

C. CMI Construction: None.

D. Community Events: Beatty Development will provide periodic updates to the local residents as the redevelopment projects progress.

Please call me at 973-455-4131 if you have any questions or comments.

Sincerely,



Maria Kaouris
Project Coordinator

cc: Peggy Otum/Arnold and Porter (letter only)
Jonathan Flesher/Beatty Development Group, LLC
File/Baltimore Inner Harbor Site

Enclosures

Attachment 1
Quarterly Operation and Maintenance Schedule for
Third Quarter 2021

July 2021

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
27	28	29	30	1	2	3
					Standard Inspections - MES 1	
4	5	6	7	8	9	10
	July 4th Offices Close	All Monthly Inspections -Ladder, Fall Equipment, SSMP, Fire Equipment			Standard Inspections - MES 1 Q2 Quarterly Report Due	
11	12	13	14	15	16	17
		Piezometer Inspection MES2			Standard Inspections - MES 1	
18	19	20	21	22	23	24
		Vault Inspection MES2			Standard Inspections - MES 1	
25	26	27	28	29	30	31
					Standard Inspections - MES 1	
1	2	NOTES				

August 2021

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2	3 Annual Sump Overflow and Tank Room Leak Detection Test	4	5	6 Standard Inspections - MES 1	7
8	9 All Monthly Inspections -Ladder, Fall Equipment, SSMP, Fire Equipment	10 Peizometer Inspections MES2	11	12	13 Standard Inspections - MES 1	14
15	16	17 Vault Inspection MES2 Q3 SWS Primary - MES	18	19	20 Standard Inspections - MES 1	21
22	23	24	25	26	27 Standard Inspections - MES 1	28
29	30	31 Q3 SWS Backup 1	1	2	3 Standard Inspections - MES 1	4
5	6	NOTES				

September 2021

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
29	30	31	1	2	3	4
					Standard Inspections - MES 1	
5	6	7	8	9	10	11
	Labor Day-Offices Closed	All Monthly Inspections -Ladder, Fall Equipment, SSMP, Fire Equipment			Standard Inspections - MES 1	
12	13	14	15	16	17	18
		Piezometer Inspection-MES2	Q3 SWS Backup 2		Standard Inspections - MES 1	
19	20	21	22	23	24	25
		Vault Inspection- MES2			Standard Inspections - MES 1	
26	27	28	29	30	1	2
					Standard Inspections - MES 1	
3	4	NOTES				

Attachment 2
Environmental Media Monitoring Report

Environmental Media Monitoring Plan
Quarterly Report No. 127
Second Quarter 2021

Baltimore Inner Harbor
Baltimore, Maryland

Prepared for

Honeywell

115 Tabor Road
Morris Plains, New Jersey 07950

Prepared by

Jacobs

Jacobs Engineering
2411 Dulles Corner Park Suite #500
Herndon, VA 20171

July 2021

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Acronyms and Abbreviations

µg	microgram
BTV	background threshold value
EMMP	<i>Environmental Media Monitoring Plan</i>
EPA	U.S. Environmental Protection Agency
ERM	Environmental Resources Management Inc.
F&R	Froehling and Robertson
m ³	cubic meter
MDE	Maryland Department of the Environment
MES	Maryland Environmental Services
ng	nanogram
PM	particulate matter
ppb	parts per billion
Site	Honeywell Baltimore Inner Harbor Site
SSMP	<i>Surface Soil Monitoring Plan</i>
TOC	total organic carbon

1. Introduction

1.1 Purpose

This document summarizes data collected during the second quarter of 2021 at the Baltimore Inner Harbor Site (Site) as required by the Environmental Media Monitoring Program and set forth in the *Environmental Media Monitoring Plan* (EMMP) and the *Surface Soil Monitoring Plan* (SSMP). The submittal constitutes a Progress Report in accordance with the requirements of Section V.3 of the Consent Decree, entered into by Honeywell (formerly AlliedSignal, Inc.), the U.S. Environmental Protection Agency (EPA), and the Maryland Department of the Environment (MDE) dated September 29, 1989, and requiring that a progress report be submitted every calendar quarter during the life of the Consent Decree.

1.2 Scope of Work

The scope of work outlined in the EMMP (Environmental Media Monitoring Plan) covers sampling and analysis of environmental media before, during, and after dismantlement of the former plant, and the completion of the corrective measures implementation activities at the Honeywell Baltimore Inner Harbor Site (Site). The environmental media sampled as part of the EMMP are air, surface water, groundwater, and sediment.

The scope of work outlined in the SSMP (Surface Soil Monitoring Plan) covers sampling and analysis of environmental media after completion of Corrective Measures Implementation activities at the Site. The only environmental medium sampled as part of the SSMP is the drainage layer effluent.

Media are sampled on varying frequencies as required by the EMMP and the SSMP (quarterly, twice annually, annually, and every 3 years). Only data for the media sampled during each quarter are reported in this quarterly report.

1.3 Sampling Conducted This Quarter

Surface water, groundwater, and drainage layer samples were collected during the second quarter of 2021. Surface water sampling results are described in Section 2, with the analytical data provided in Appendix A. Groundwater sampling results are described in Section 3, with the analytical data provided in Appendix B. Drainage layer sampling results are described in Section 4, with the analytical data provided in Appendix C.

Validata LLC validated all sampling data for the second quarter of 2021. The validation reports for second quarter 2021 surface water monitoring are provided in Appendix D. All data quality objectives were met for sample results reported herein.

1.4 Progress Report Organization

Progress reports prepared in accordance with the Consent Decree are organized by medium. The media section provides a summary of methodology, the current quarter's sampling plan, and a summary of results. Also provided in these sections are a discussion of the sampling event; explanations for any deviations from the EMMP or SSMP procedures; data summaries; and discussion of the data, quality control results, and pertinent data trends. Sampling monitoring details are presented in Sections 2, 3, and 4. Associated analytical data and chain-of-custody records are provided in Appendices A, B, and C. Validation results are presented in Appendix D.

2. Surface Water Monitoring

2.1 Methodology

The surface water monitoring program provides information about surface water quality around the perimeter of the Site, at 18 predetermined stations, and at 2 stations upstream from the Site. Samples are collected at each station during each quarter and analyzed for total dissolved chromium.

Sampling is conducted within 1 hour of low tide and close to the predetermined sampling locations. The pH, temperature, specific conductance, and depth to the river bottom are measured before each sample is collected. A decontaminated Kemmerer sampler is used to collect the samples, which are placed in 500-milliliter plastic bottles. Two samples are collected—the first 1 foot below the water surface and the second 1 foot above the river bottom—at all locations except Station 20, where the water depth may be at or below 1 foot. When this is the case, only one sample is collected at Station 20. A mid-depth sample is required from sampling locations where the depth is more than 10 feet. The lateral placement of each sample location is about 5 feet from the bulkhead/shoreline. Laboratory sampling personnel record measurements and observations on sampling sheets, which are presented in Appendix A.

Surface water sample containers are placed on ice as soon as samples are collected. Field duplicate samples, field blanks, and rinsate blanks are also collected. At the end of the sample round, the samples are filtered and preserved. The samples are then transferred to the laboratory using documented chain-of-custody procedures and a dedicated courier. The samples are analyzed for total dissolved chromium using EPA SW-846 Method 6010B.

The results received from the laboratory are entered into a database in which data for each month are tabulated. When duplicate samples for a given station are taken, the average of the concentrations is used for that station. The analytical results, chain-of-custody documentation, and field sampling reports are presented in Appendix A.

2.2 Current Quarter Results

Surface water sampling for the second quarter of 2020 was performed by Maryland Environmental Services (MES) at all 20 surface water sampling locations on April 7, 2021. The surface water sampling locations are illustrated on Figure 2-1 (at the end of this section). Results for these surface water samples are included in this report. Field notes for the April 7, 2021, surface water sampling are provided in Appendix A-3 of this report.

All of the collected samples were transported to Lancaster Laboratories in Lancaster, Pennsylvania, for total dissolved chromium analysis. Summaries of the surface water data and average concentrations for April 7, 2021, including individual sample detection limits and validated data qualifiers, are presented in Tables 2-1 and 2-2.

2.3 Data Review

The surface water monitoring program is intended to provide information on surface water quality in the immediate vicinity of the waterside perimeter of the Site. This information is used to assess the performance of the corrective measures.

The Consent Decree, Section V, Part 12, establishes the Surface Water Performance Standard: “The surface water performance standard [...] for total chromium shall be 50 parts per billion (ppb), calculated for each sample location by arithmetically averaging the samples taken at all depths over 4 consecutive days.” In October 2002, the sample frequency was amended to be 1 day of sampling at each sampling location per quarter.

In addition, the EMMP states that Honeywell will review analytical data for results greater than 11 ppb of dissolved hexavalent chromium. The 11-ppb reporting level is based on the following:

- Code of Maryland Regulation 26.08.02.03-1B, which states that the numerical toxic substance criteria for freshwater shall be applied to the surface water near the Site; and
- National Recommended Water Quality Criteria Correction EPA 822-Z-99-001 (April 1999), which states that the chronic exposure level for dissolved hexavalent chromium in freshwater is 11 ppb.

Total dissolved chromium concentrations detected in surface water samples reported for the second quarter of 2021 are similar to the analytical values reported for the first quarter of 2021. All values reported for the sampling event are below the performance standard of 50 ppb and the analytical detection limit of 15 ppb.

The percentages of actual or average surface water results meeting specific criteria (performance standard, chronic freshwater exposure, and detection limit) are listed in Table 2-1. Results of analyses for total dissolved chromium from each sampling location and each depth are presented in Table 2-2. The average analytical result from each sampling location is presented in Table 2-3.

Table 2-1. Percent of Average or Actual Surface Water Results Below Specific Criteria

Sample Event	Performance Standard Actual Concentration < 50 ppb	Fresh Water Chronic Exposure Level Actual Concentration <11 ppb	Analytical Detection Limit† Actual Concentration <0 ppb	Method Detection Limit† Actual Concentration <0 ppb
4/7/2021	100%	100%	100%	91%

† The Analytical Detection Limit as determined by the laboratory QC is 15 ppb.

Table 2-2. Surface Water Sampling Data per Location, April 2021

Station Number	Reporting Limit (ug/L)	Method Detection Limit (ug/L)	Total Dissolved Chromium (ug/L) 4/7/2021
3B	15	1.6	ND
3T	15	1.6	ND
4B	15	1.6	ND *
4T	15	1.6	ND
5B	15	1.6	ND
5T	15	1.6	ND
6B	15	1.6	ND
6T	15	1.6	ND
7B	15	1.6	ND
7T	2.3	1.6	2.3
8B	15	1.6	1.9 J
8T	15	1.6	1.9 J
9B	15	1.6	ND
9T	15	1.6	ND
10B	15	1.6	ND
10T	15	1.6	ND *
11B	15	1.6	ND
11T	15	1.6	ND
12B	15	1.6	ND
12T	15	1.6	ND
13B	15	1.6	ND
13T	15	1.6	ND
14B	15	1.6	ND *
14T	15	1.6	ND
15B	15	1.6	ND
15T	15	1.6	ND
16B	15	1.6	ND
16T	15	1.6	ND
17B	15	1.6	ND
17T	15	1.6	ND
18B	15	1.6	ND
18T	15	1.6	ND
19B	15	1.6	ND
19T	15	1.6	ND
20B	15	1.6	ND
20T	15	1.6	ND *
Cent B	15	1.6	ND
Cent T	15	1.6	ND
Lady B	15	1.6	ND
Lady T	15	1.6	ND

T - Sample collected 1 foot below the surface (TOP)

M - Sample collected from the measured middle of the TOP and BOTTOM measurements (MIDDLE)

B - Sample collected 1 foot from the bottom (BOTTOM)

* - Average of the sample result and its Field Duplicate

J - Result was reported below the Reporting Limit and above the Method Detection Limit

ND - Result not detected at the Method Detection Limit

Table 2-3. Water Sampling Data per Sampling Station, April 2021

Station Number	Total Dissolved Chromium (ug/L) 4/7/2021 Station Average of All Depths
3	15
4	15
5	15
6	15
7	9 J
8	1.9 J
9	15
10	15
11	15
12	15
13	15
14	11 J
15	15
16	15
17	15
18	15
19	15
20	15
Cent	15
Lady	15

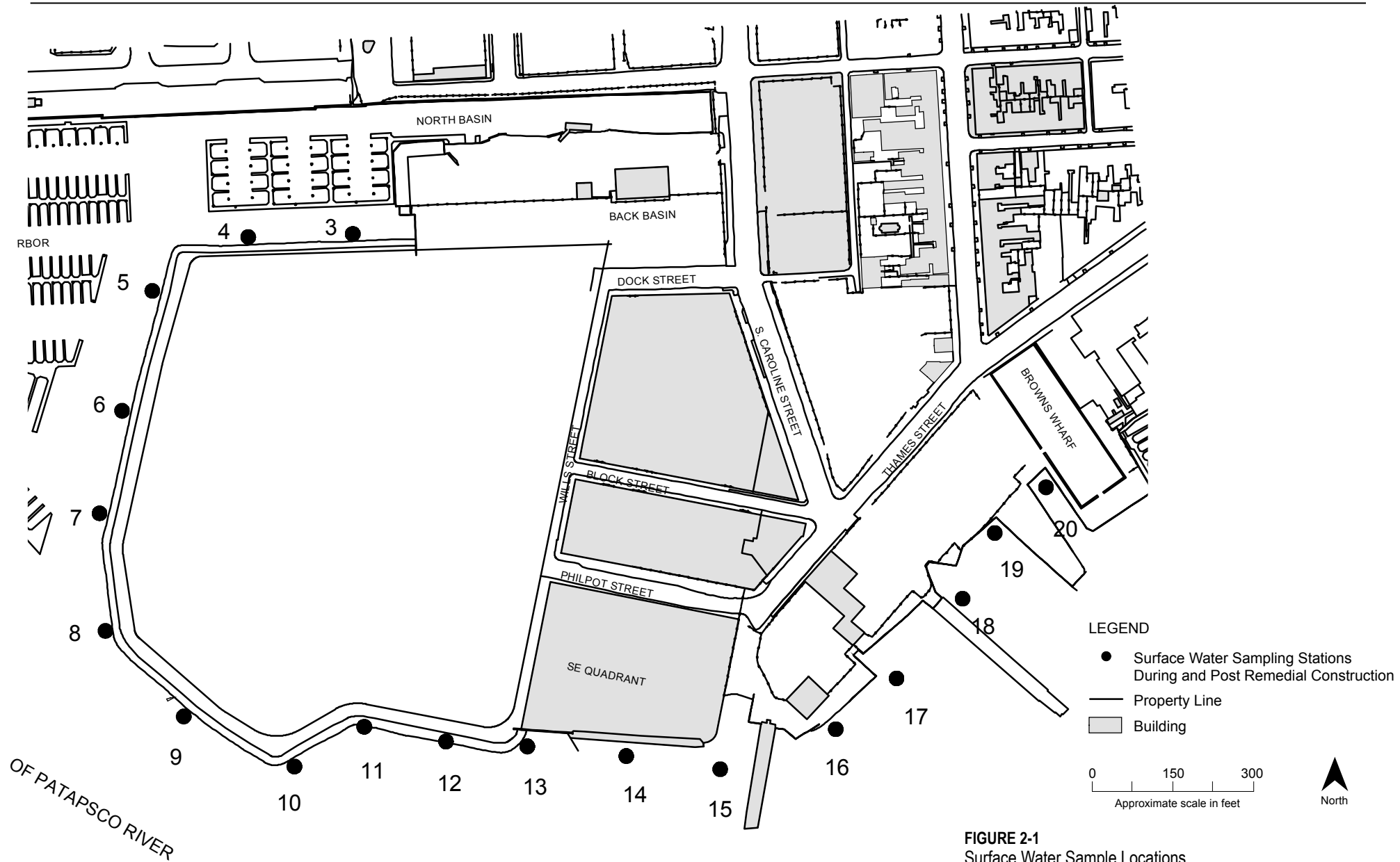


FIGURE 2-1
 Surface Water Sample Locations
Environmental Media Monitoring

3. Groundwater Monitoring

3.1 Methodology

The Consent Decree required monthly groundwater monitoring for the first 2 years following completion of remedial construction at nine locations around the perimeter of the Site and in three locations (OP-2, OP-11, and NWM-27) in offsite areas. Four of the perimeter locations (SW-06, SW-11, SW-13, and SW-15) are monitored by collecting surface water samples within 1 foot of the bottom, as described in Section 2.1. The other five perimeter locations (OP-3, OP-4, OP-5, OP-7, and OP-9) are monitored by collecting groundwater samples from onsite piezometers. The three offsite locations are monitored by collecting one sample from a conventional monitoring well (NWM-27) and one sample each from two piezometers (OP-2 and OP-11). All monitoring locations are shown in Figure 3-1.

As of January 2002, the groundwater-monitoring frequency was reduced from monthly to twice per year, as described in Sections 1.2.3 and 5.2.3 of the *Honeywell Baltimore Works Environmental Media Monitoring Plan*, which was approved by EPA and MDE.

Before the monitoring well and piezometers are purged and sampled, measurements of depth to water are recorded on a sampling summary sheet. All designated monitoring wells/piezometers are sampled in accordance with the low-flow sampling procedures detailed in the following documents:

- *Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures* (EPA/540/S-95/504), April 1996, by Robert W. Puls and Michael J. Barcelona; and
- *Recommended Procedures for Low-Flow Purging and Sampling of Groundwater Monitoring Wells* (Bulletin No. QAD023), August 8, 1994, by EPA Region III.

During purging and before sample collection, field measurements—including conductivity, pH, temperature, reduction oxidation potential, dissolved oxygen, and turbidity—are measured until the well stabilizes. The sampling time is recorded. The collected samples are filtered, preserved, placed on ice, and then transferred to the laboratory according to chain-of-custody procedures. The samples are analyzed for total dissolved chromium by the laboratory using EPA SW-846 Method 6010B. Two of the samples (OP-3 and OP-2) are also analyzed for total dissolved cyanide using EPA SW-846 Method 9014. Field blanks, temperature blanks, and rinsate blanks are also collected and analyzed for the same parameters.

Results received from the laboratory are entered into a database. Data for each month, quarter, and year are tabulated, averaged, and compared to previous results.

3.2 Current Quarter Results

Groundwater samples were collected on April 14, 2021. MES performed all sample collection, and Lancaster Laboratories performed the sample analysis.

3.2.1 Chromium

Total dissolved chromium was detected in all of the groundwater samples collected from piezometers and monitoring wells except at outer piezometer 11. The results of the second quarter 2021 groundwater sampling were similar to those of the previous 3 years at all locations.

Bottom surface water samples collected along the site perimeter from locations proximal to historical groundwater sampling well locations, had total dissolved chromium levels below the analytical method detection limit of 15 ppb.

3.2.2 Cyanide

Total dissolved cyanide concentrations were within expected variations, based on a review of the historical concentrations. The analytical data report is provided in Appendix B-1.

3.3 Historical Results

3.3.1 Chromium

The second quarter 2021 results from groundwater sampling, averaged to represent two sampling events per year for data comparison for each groundwater monitoring location, are presented in Table 3-1. A statistical review of the analytical data, including the minimum, maximum, average, and standard deviation values for each well location, is presented in Table 3-2. Validated analytical groundwater monitoring results with data qualifiers from the second quarter of 2020, including annual averages for data collected during the last 5 years, are presented in Table 3-3.

The historical total dissolved chromium concentrations in groundwater for each monitoring location are shown in Figure 3-2. Trends for total dissolved chromium concentrations for each groundwater monitoring location are depicted in Figures 3-3 through 3-9. The historical data in these figures were averaged to allow current data to be compared to past sample rounds.

3.3.2 Cyanide

Groundwater samples were collected from two locations (OP-2 and OP-3) for cyanide analysis. The historical trend of cyanide levels is presented in Table 3-4.

Table 3-1
Total Dissolved Chromium Concentrations in Groundwater (mg/l)

Monitoring Wells	Elevation (ft) Top of Well Screen	Current Results mg/l	Sample Detection Limit mg/l	Sample Event Dates							
				Apr, 2021	Oct, 2020	May, 2020	Oct, 2019	Apr, 2019	Oct, 2018	Apr, 2018	Oct, 2017
Outboard Piezometers											
11B		0.015	0.015	0.0057	0.0150	0.0150	0.0053	0.0053	0.0033	0.0033	0.0018
13B		0.015	0.015	0.003	0.0150	0.0150	0.0053	0.0053	0.0033	0.0033	0.0018
15B		0.015	0.015	0.0047	0.0150	0.0150	0.0053	0.0053	0.0033	0.0033	0.0020
6B		0.015	0.015	0.0036	0.0150	0.0020	0.0053	0.0053	0.0033	0.0033	0.0023
NWM-27	32.68	2.1	0.15	50	410	10.1	2.55	1.69	18	4.99	
OP11	44.47	0.0067	0.015	0.0034	0.0076	0.015	0.011	0.0059	0.024	0.0033	
OP2	64.31	4.40	0.015	4.3	4.39	4.51	4.53	4.37	4.71	4.34	
OP3	68.53	100	0.150	110	117	122	117	122	113	107	
OP4	69.14	0.190	0.015	0.1200	0.0091	0.015	0.0204	2.34	2	52.6	
OP5	60.7	0.011	0.015	0.008	0.54	0.02	0.59	1.12	1.16	1.52	
OP7	55.42	0.015	0.015	0.0105	0.01135	0.015	0.0053	0.0169	0.018	0.03595	
OP9	47.13	1400	1.500	1400	1590	1610	1520	1490	1490	773	

Outboard Piezometers	Apr, 2017	Oct, 2016	Apr, 2016	Dec, 2015	Nov, 2015	Apr, 2015	Oct, 2014	Apr, 2014	Oct, 2013	Apr, 2013	Oct, 2012
11B		0.0024	0.002		0.003	0.0013	0.002	0.0016	0.001	0.001	0.001
13B		0.0018	0.002		0.002	0.0013	0.002	0.0016	0.001	0.001	0.001
15B		0.0018	0.002		0.002	0.0013	0.002	0.0016	0.001	0.0011	0.0011
6B		0.0020	0.002		0.002	0.0025	0.003	0.0016	0.001	0.001	0.001
NWM-27	2.14	270	2010	1300		1700	1820	2200	2280	2450	1910
OP11	0.008	0.0083	0.008	0.0094		0.011	0.019	1.520	0.889	0.869	0.751
OP2	4.71	4.69	4.80	4.78		5.42	5.34	5.52	5.09	5.77	5.14
OP3	130	132	121	116		123	127	146	141	137	140
OP4	2.68	319	285	320		329	298	376	400	3	323
OP5	1.99	2.21	1.67	3.53		3.510	3.900	3.93	4.0	4.0	3.0
OP7	0.140	0.016	0.006	0.0047		0.033	0.026	0.021	0.002	0.002	0.002
OP9	1610	1720	1710	1450		1800	1660	1850	1840	1900	1870

Table 3-1
Total Dissolved Chromium Concentrations in Groundwater (mg/l)

Outboard Piezometers	Apr, 2012	Oct, 2011	Jun, 2011	Apr, 2010	Oct, 2009	Apr, 2009	Oct, 2008	Apr, 2008	Oct, 2007	Apr, 2007	Oct, 2006
11B	0.001	0.001	0.003	0.003	0.003	0.003	0.003	0.002	0.002	0.015	0.015
13B	0.002	0.001	0.003	0.003	0.003	0.003	0.003	0.002	0.002	0.015	0.015
15B	0.0011	0.001	0.003	0.003	0.003	0.003	0.003		0.002	0.015	0.015
6B	0.001	0.001	0.003	0.003	0.004	0.003	0.003	0.003	0.004	0.015	0.015
NWM-27	2150	2310	1910	1840	1950	2240	174	2130	699	1690	710
OP11	0.507	0.210	0.390	0.470	0.201	0.368	0.192	0.483	0.033	0.122	0.015
OP2	5.20	5.82	5.79	6.31	6.36	6.05	7.12	5.77	7.34	6.33	6.39
OP3	126	142	144	146	153	165	6	189	166	202	199
OP4	17	457	504	503	533	548	616	601	526	684	584
OP5	1.89	2.84	4.61	5.0	6.5	5.4	7.7	7.7	8.1	7.8	.8
OP7	0.012	0.010	0.005	0.006	0.005	0.003	0.004	0.005	0.002	0.015	0.015
OP9	1950	2110	2200	2040	2150	2070	5020	4800	3020	3170	3050

Outboard Piezometers	Apr, 2006	Oct, 2005	Apr, 2005	Oct, 2004	Apr, 2004	Oct, 2003	Apr, 2003	Oct, 2002	Apr, 2002	Jan, 2002	Dec, 2001
11B	0.015	0.015	0.015	0.005	0.010	0.005	0.005	0.005	0.008	0.008	0.008
13B	0.015	0.015	0.015	0.005	0.010	0.005	0.005	0.005	0.008	0.008	0.008
15B	0.015	0.015	0.015			0.005	0.005	0.005	0.008	0.008	0.008
6B	0.015	0.015	0.015	0.005	0.010	0.005	0.005	0.005	0.008	0.009	0.008
NWM-27	1540	1010	874	744	422	603	603	550	930	1100	690
OP11	0.235	0.182	0.026	0.017	0.080	0.005	0.005	0.017	0.009	0.029	0.033
OP2	6.20	6.32	6.08	5.98	5.75	6.16	6.00	5.63	4.90	5.50	5.60
OP3	219	286	288	297	309	342	342	378	440	440	440
OP4	812	1020	1100	1150	1260	1290	1210	1620	1800	1400	1700
OP5	.27	8.67	11.50	11.9	11.9	13.3	15.4	16.9	21.0	19.5	18.5
OP7	0.015	0.015	0.005	0.005	0.010	0.004	0.006	0.005	0.008	0.008	0.008
OP9	2790	2810	2680	2780	2510	2480	2510	2410	2500	2200	2500

Table 3-1
Total Dissolved Chromium Concentrations in Groundwater (mg/l)

Outboard Piezometers	Nov, 2001	Oct, 2001	Sep, 2001	Aug, 2001	Jul, 2001	Jun, 2001	May, 2001	Apr, 2001	Mar, 2001	Feb, 2001	Jan, 2001
11B	0.008	0.008	0.008	0.008	0.008	0.010	0.010	0.01	0.0105	0.01	0.01
13B	0.008	0.008	0.008	0.008	0.008	0.010	0.010	0.01	0.01	0.01	0.01
15B	0.008	0.008	0.008	0.008	0.008	0.010	0.010	0.01	0.01	0.01	0.01
6B	0.008	0.008	0.008	0.008	0.008	0.010	0.010	0.01	0.01	0.01	0.01
NWM-27	1300	830	1000	1500	1300	1600	1700	1300	1500	1600	1600
OP11	0.026	0.032	0.049	0.034	0.032	0.042	0.031	0.01	0.05	0.014	0.012
OP2	4.90	6.20	6.50	5.80	4.80	5.80	6.00	5.75	4.9	6.20	6.10
OP3	480	570	420	410	450	420	430	460	470	450	470
OP4	2000	1700	1800	1800	1800	1900	1800	1900	1900	2000	2000
OP5	20.00	20.50	21.00	17.5	23.5	23.0	23.0	24	25	25.5	26.0
OP7	0.008	0.012	0.008	0.008	0.008	0.010	0.010	0.01	0.01	0.010	0.010
OP9	2650	2500	2600	2400	2500	2500	2400	2400	2400	2300	2600

Outboard Piezometers	Dec, 2000	Nov, 2000	Oct, 2000	Sep, 2000	Aug, 2000	Jul, 2000	Jun, 2000	May, 2000	Apr, 2000	Mar, 2000	Feb, 2000
11B	0.010	0.010	0.010	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.002
13B	0.010	0.010	0.010	0.01	0.01	0.01	0.01	0.01	0.010125	0.0105	0.002
15B	0.01	0.010	0.010	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.002
6B	0.010	0.010	0.010	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.002
NWM-27	1600	1700	1700	1800	1700	1600	1700	1700	1800	3600	2600
OP11	0.015	0.022	0.011	0.010	.01	0.01	0.01	0.01	0.01	0.004	0.047
OP2	6.00	5.90	6.10	5.85	5.90	3.15	3.6	3.7	5.4	8	4.4
OP3	480	500	490	500	510	530	540	580	570	1045	630
OP4	2100	2100	2400	2250	2400	2400	2400	2800	2500	3300	2300
OP5	25.00	26.00	28.00	25.0	24.0	18.0	34	27	33	47	44
OP7	0.010	0.010	0.010	.01	.01	0.012	0.041	0.050	0.051	0.002	0.002
OP9	2500	2400	2700	2500	2500	2400	2400	2800	2500	4500	2400

Table 3-1
Total Dissolved Chromium Concentrations in Groundwater (mg/l)

Outboard Piezometers	Dec, 1999	Aug, 1999	May, 1999	Mar, 1999	Dec, 1998	Sep, 1998	Jun, 1998	Mar, 1998	Dec, 1997		
11B											
13B											
15B											
6B											
NWM-27	1800	2300	1900	1400	1000			610			
OP11	0.020	0.010	0.010	0.030	0.010	2.70					
OP2	7.30	6.50	1.80	2.40	2.80	4.60					
OP3	670	800	670	690	750	780	890	2200	2400		
OP4	2900	3800	2900	2000	3000	1900	2000	2500	3700		
OP5	42.00	31.00	59	45	58	65.0	70.0	130	150		
OP7	0.020	0.010	0.01	0.06	1.6	8.60	0.300	0.020	0.02		
OP9	3200	2200	1800	3200	2200	2300	2800	3600			

Table 3-2
Current and Annual Total Dissolved Chromium Concentrations in Groundwater (mg/l)

Monitoring Wells	Elevation (ft) Top of Well Screen	Current Results ppm	Sample Detection Limit ppm	Last Sample Round Results ppm	Average											Notes
					2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	
<u>Outboard Piezometers</u>																
OP-3	-53.5	100	1.5	110	117	122	117.50	110.0	127	120	137	139	133	139	145	4
OP-4	-57.1	0.19	0.015	0.12	0.0091	0.015	2.19	27.64	302	325	337	201	170	457	504	4
OP-5	-51.3	0.011	0.015	0.0075	0.538	0.015	1.14	1.76	1.96	3.55	3.92	4.00	2.43	3.10	4.82	4
OP-7	-47.6	ND	0.015	0.0100	0.0114	0.015	0.017	0.086	ND	0.019	0.0252	ND	ND	0.01	ND	4
OP-9	-37.8	1400	1.5	1400	1590	1610	1490	1192	1715	1625	1755	1870	1910	2045	2120	4
<u>Deep Surface Water</u>																
SW-06	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4
SW-11	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4
SW-13	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4
SW-15	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4
<u>Offsite Wells</u>																
OP-2	-48.0	4.40	0.015	4.30	4.39	4.51	4.54	4.53	4.75	5.10	5.43	5.43	5.17	5.81	6.11	4
OP-11	-35.5	0.0067	0.015	0.0034	0.0076	0.015	0.015	ND	ND	0.01	0.769	0.879	0.699	0.381	0.442	4
NWM-27	-24.7	2.1	0.015	50.00	410.00	10.10	10.00	3.57	1140	1500	2010	2365	2030	2270	1875	4

NA - Not Applicable

ND - Not Detected

ERROR - Numerical data not reported for some portion of the referenced time period

U - Not detected validated results

B - Indicates that the calibration blank had some carryover contamination from these samples.

* - Average of the sample and its duplicate

1 - Consists of averages of monthly data

2 - Consists of averages of quarterly data

3 - Consists of twice annual data (single data point)

4 - Average consists of all available data

Table 3-3 - Groundwater Trend Analysis ⁽¹⁾

Wells	Sample Dates	Data Points	Minimum	Maximum	Average	Standard Deviation	Current Quarter Concentrations
<u>Outboard Piezometers</u>							
OP-3	December,31 1980 to December,29 2021	79	6	2400	406	388	110
OP-4	December,31 1980 to December,29 2021	78	0	3800	1318	1007	0.12
OP-5	December,31 1980 to December,29 2021	94	0.00	150	19	24	0.01
OP-7	December,31 1980 to December,29 2021	85	0.002	9	0.140	0.945	1.72
OP-9	December,31 1980 to December,29 2021	73	773	5020	2397	705	1400
<u>Offsite Wells</u>							
OP-2	December,31 1980 to December,29 2021	83	1.80	8.00	5.42	1.10	4.30
OP-11	December,31 1980 to December,29 2021	75	0.002	2.700	0.180	0.406	0.003
NWM-27	December,31 1980 to December,29 2021	69	2	3600	1323	784	50.00

1 - Trend analysis based on Sample Event Results stored in central electronic database.

Table 3-4
Current and Annual Total Dissolved Cyanide Concentrations in Groundwater (ug/l)

Monitoring Wells	Elevation (ft) Top of Well Screen	Current Results ug/l	Sample Detection Limit ug/l	Sample Event Dates								
				Oct, 2020	May, 2020	Oct, 2019	Apr, 2019	Oct, 2018	Apr, 2018	Oct, 2017	Apr, 2017	
Outboard Piezometers		Apr, 2021										
OP2	64.31	10.00	10	10.00	10.00	10.00	5.00	5.00	5.00	5.0	5.0	
OP3	68.53	6.3	10	7.5	10.0	24.0	9.5	11.0	13.0	18.0	15.0	

Outboard Piezometers	Oct, 2016	Apr, 2016	Dec, 2015	Apr, 2015	Oct, 2014	Apr, 2014	Oct, 2013	Apr, 2013	Oct, 2012	Apr, 2012	Oct, 2011
OP2	5.00	5.00	5.00	8.70	5.00	5.0	5.0	5.0	5.0	5.0	5.0
OP3	12.0	14.0	9.9	5.0	16.00	14.0	19.0	5.0	17.0	9.5	13.0

Outboard Piezometers	Jun, 2011	Sep, 2010	Apr, 2010	Oct, 2009	Apr, 2009	Oct, 2008	Apr, 2008	Oct, 2007	Apr, 2007	Oct, 2006	Apr, 2006
OP2	5.00	11.00	23.00	5.00	5.0	5.0	5.0	5.0	10.0	10.0	10.0
OP3	13.0	24.0	5.0	18.0	19.0	12.0	25.0	9.5	26.0	22.0	10.0

Outboard Piezometers	Oct, 2005	Apr, 2005	Oct, 2004	Apr, 2004	Oct, 2003	Apr, 2003	Oct, 2002	Apr, 2002	Jan, 2002	Nov, 2001	Aug, 2001
OP2	10.00	10.00	10.00	10.0	5.00	5.00	5.00	10.00	10.00	10.00	10.0
OP3	35.0	17.0	34.0	20	30	36.0	40.4	24.0	15.0	47.0	42.0

Outboard Piezometers	May, 2001	Feb, 2001	Nov, 2000	Aug, 2000	May, 2000	Feb, 2000	Dec, 1999	Aug, 1999	May, 1999	Mar, 1999	Dec, 1998
OP2	10.00	10.00	10.00	10.00	10	10	5	5	5	5	5
OP3	18.0	37.0	10.0	41.0	53.0	110.00	110.0	37.00	69.00	55.00	29.00

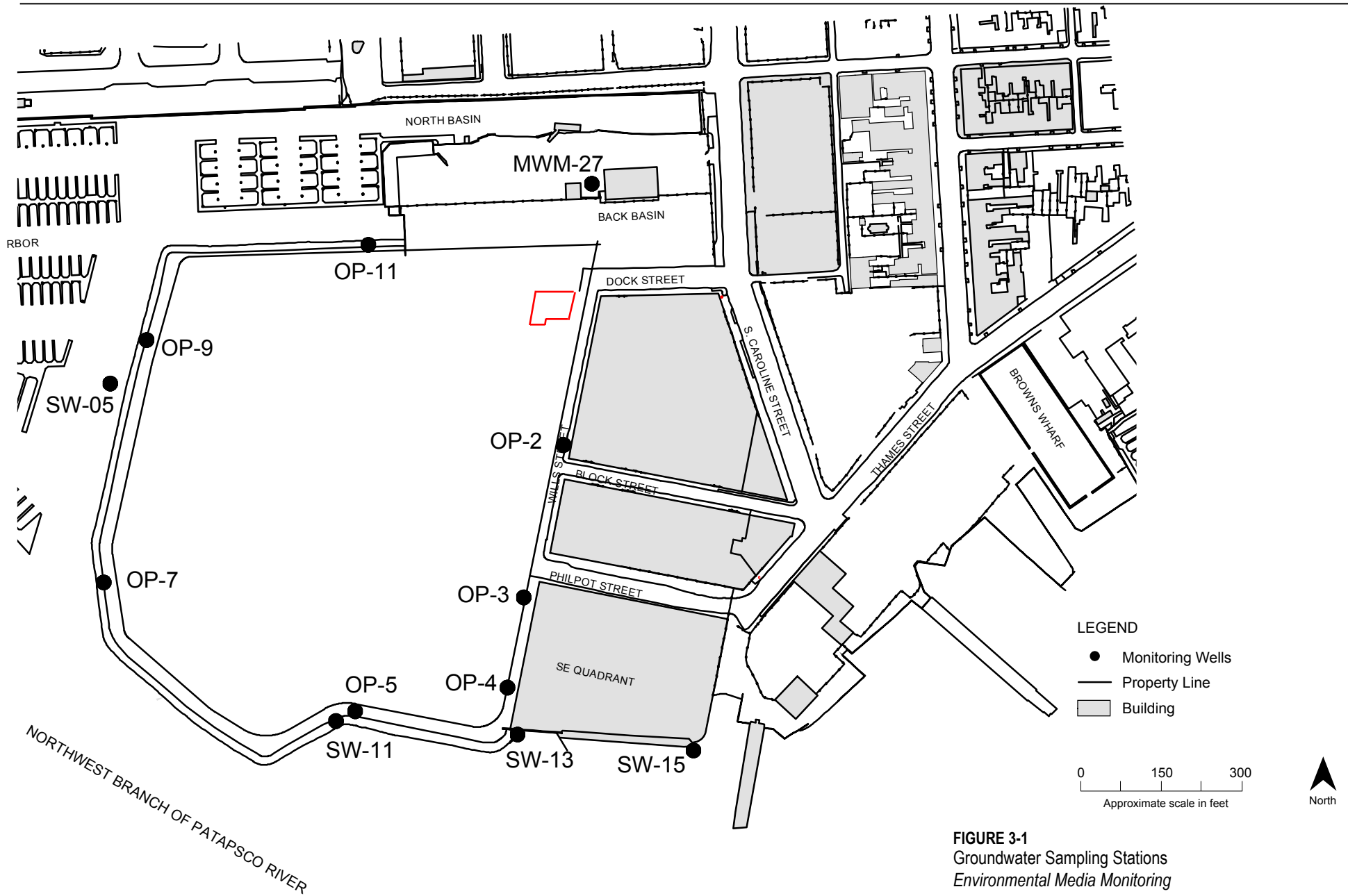


FIGURE 3-1
 Groundwater Sampling Stations
 Environmental Media Monitoring

Figure 3-2
Historical Total Dissolved Chromium Concentrations in Groundwater

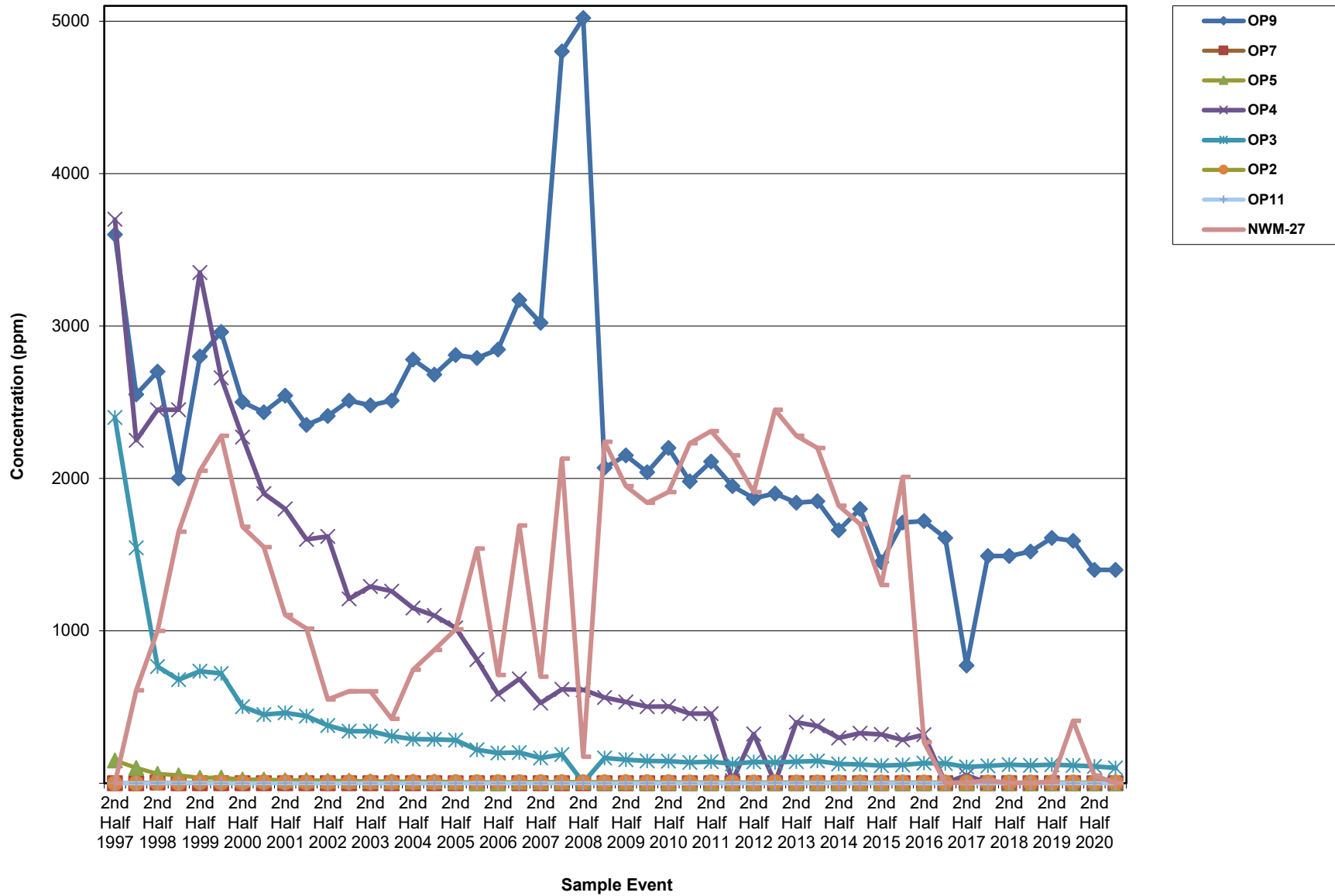


Figure 3-3
Total Dissolved Chromium Concentrations in Groundwater for OP- 3
 (Values between 1998 and 2001 are averaged over a six month period. Subsequent values represent a individual sample results. See Table 3-1)

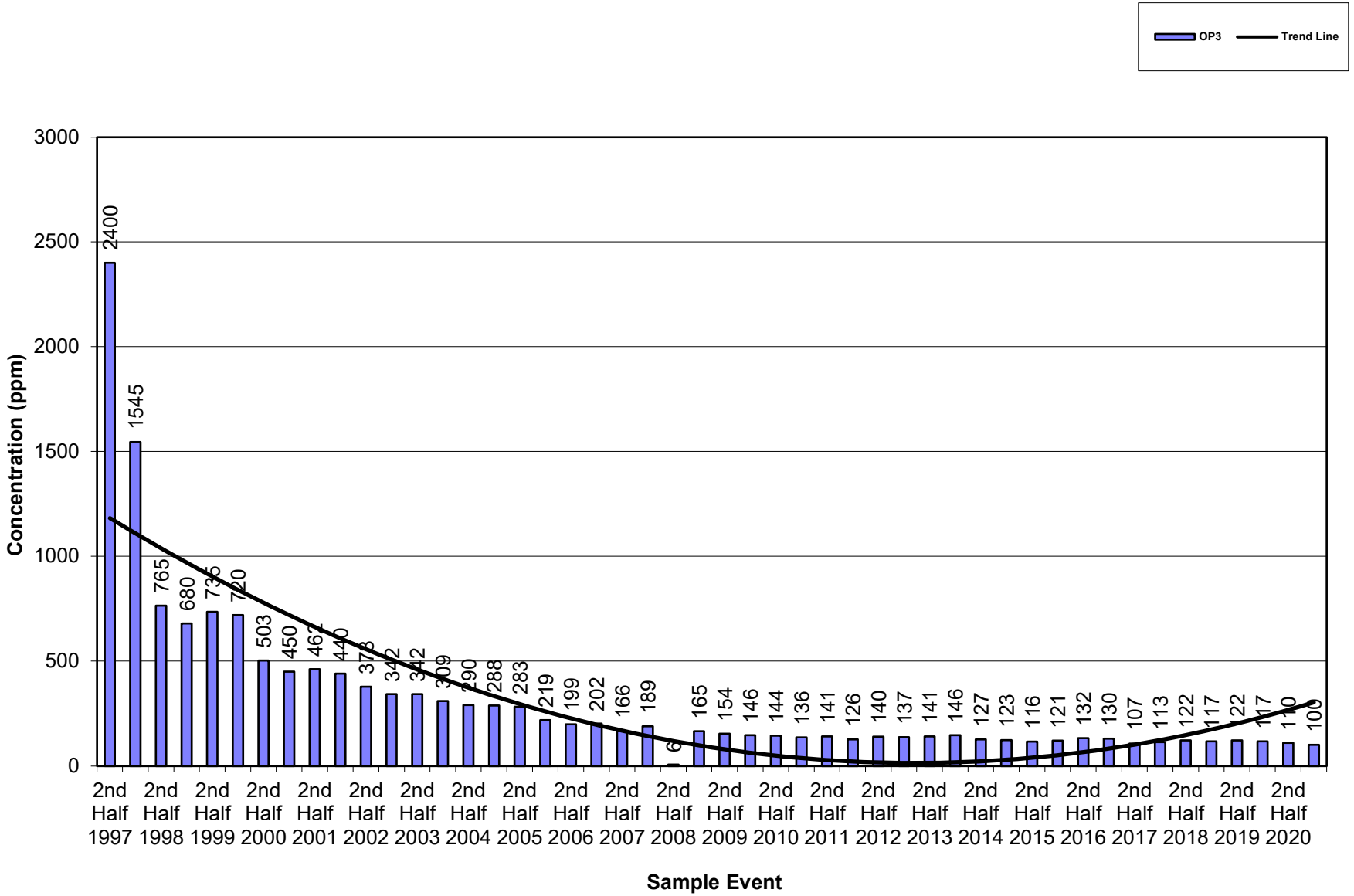


Figure 3-4
Total Dissolved Chromium Concentrations in Groundwater for OP-4
 (Values between 1998 and 2001 are averaged over a six month period. Subsequent values represent a individual sample results. See Table 3-1)

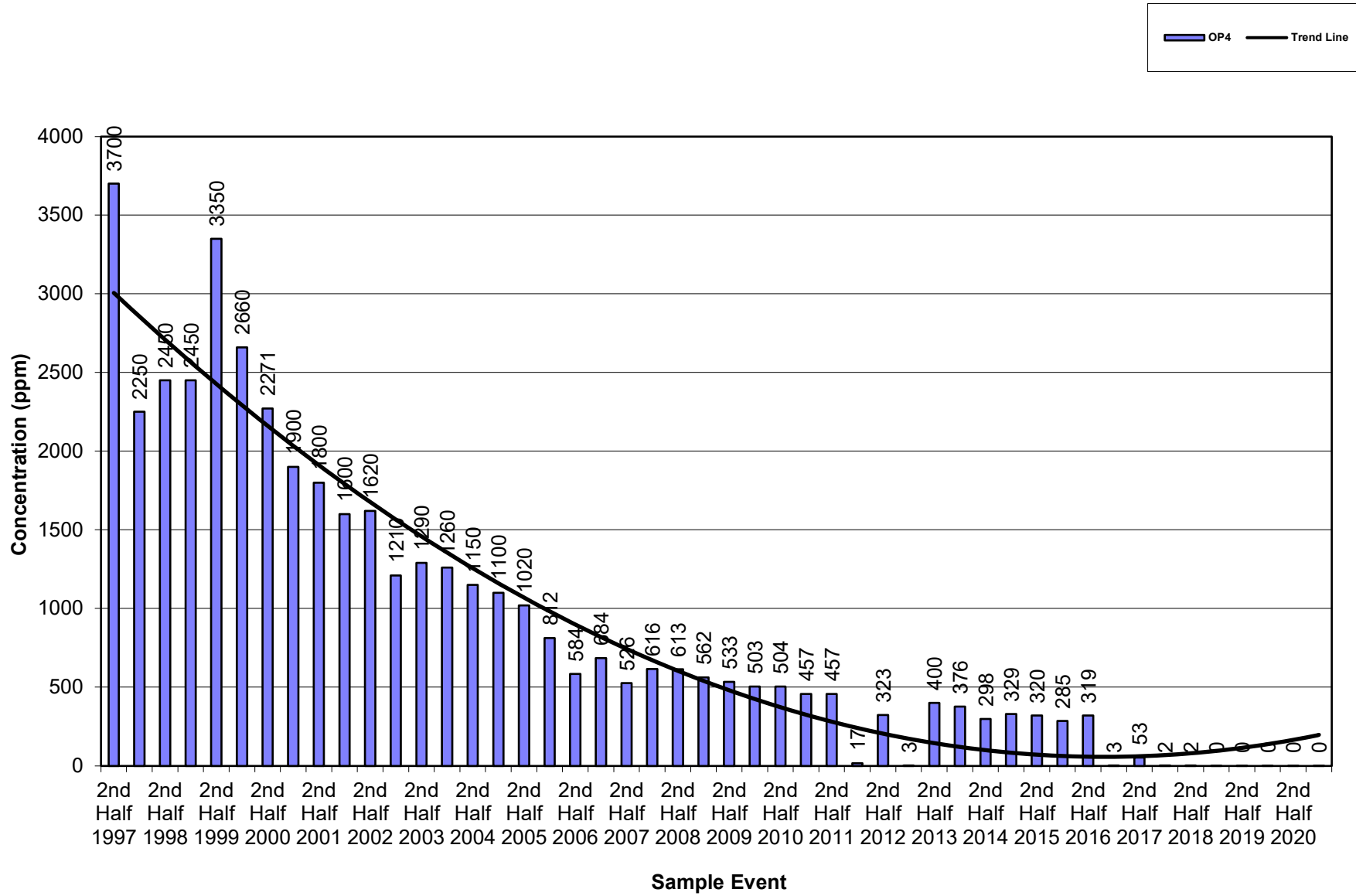


Figure 3-5
Total Dissolved Chromium Concentrations in Groundwater for OP-5
 (Values between 1998 and 2001 are averaged over a six month period. Subsequent values represent a individual sample results. See Table 3-1)

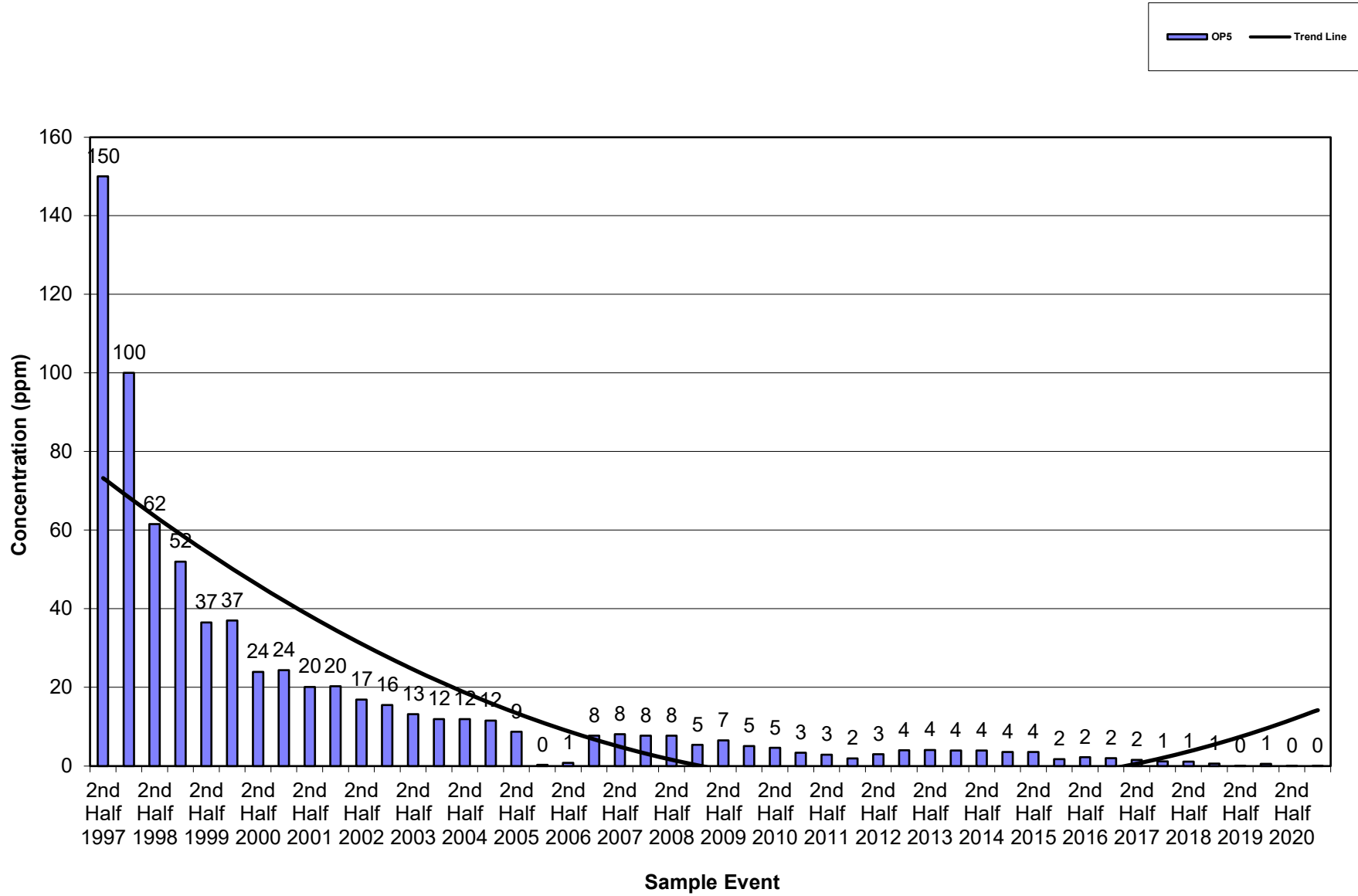


Figure 3-6
Total Dissolved Chromium Concentrations in Groundwater for OP-7
 (Values between 1998 and 2001 are averaged over a six month period. Subsequent values represent a individual sample results. See Table 3-1)

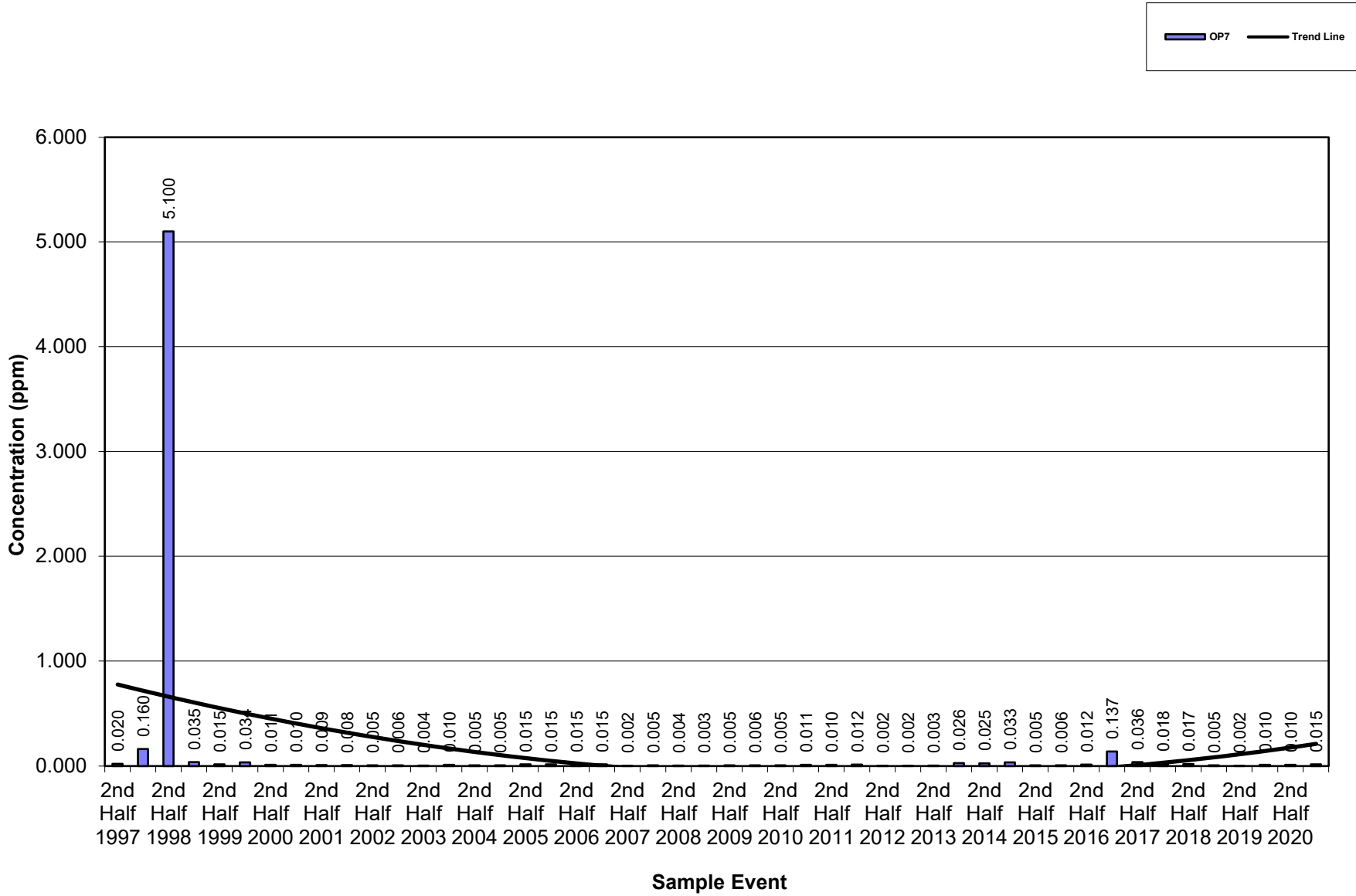


Figure 3-7
Total Dissolved Chromium Concentrations in Groundwater for OP-9
 (Values between 1998 and 2001 are averaged over a six month period. Subsequent values represent a individual sample results. See Table 3-1)

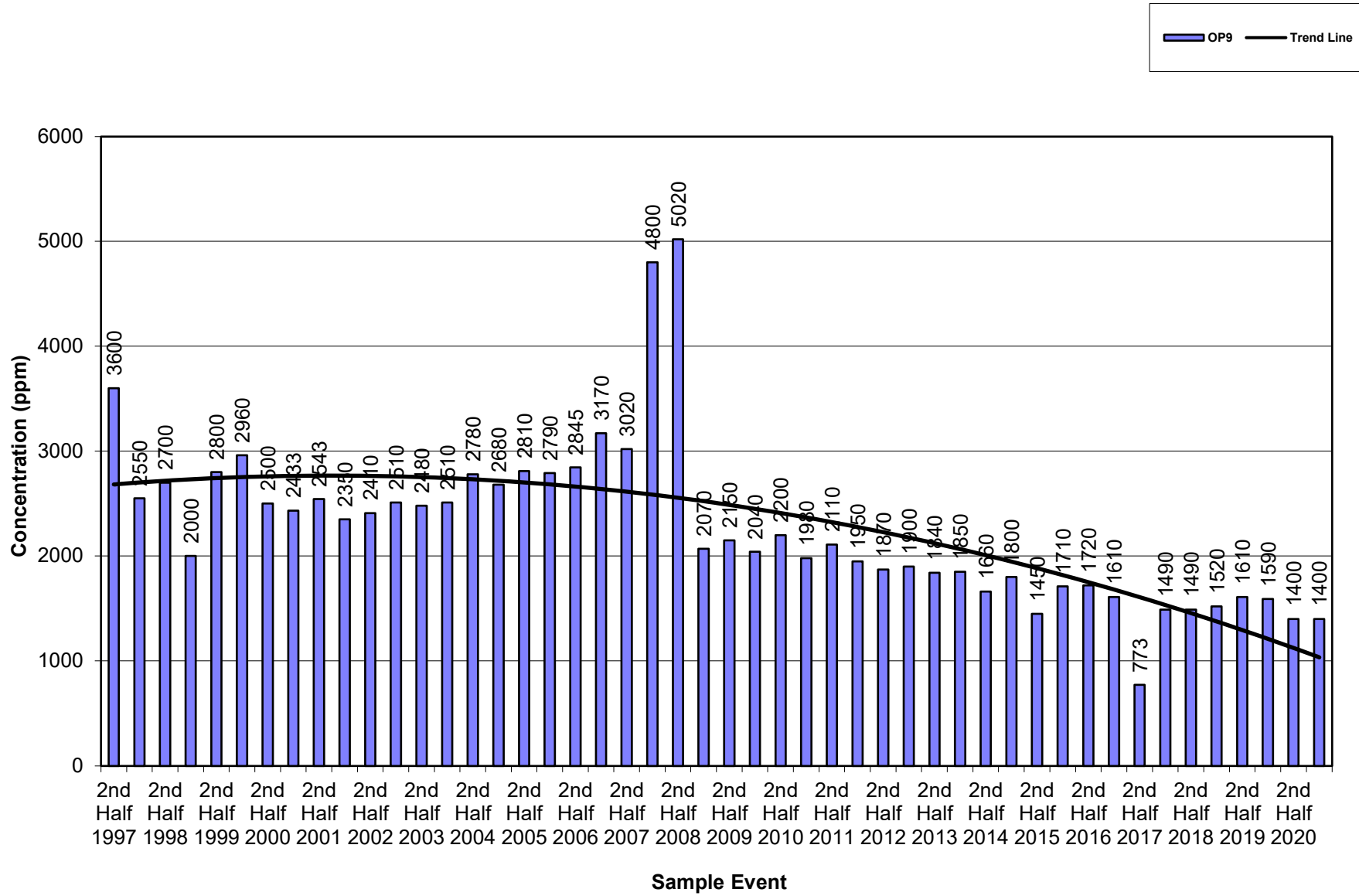


Figure 3-8
Total Dissolved Chromium Concentrations in Groundwater for OP- 2
 (Values between 1998 and 2001 are averaged over a six month period. Subsequent values represent a individual sample results. See Table 3-1)

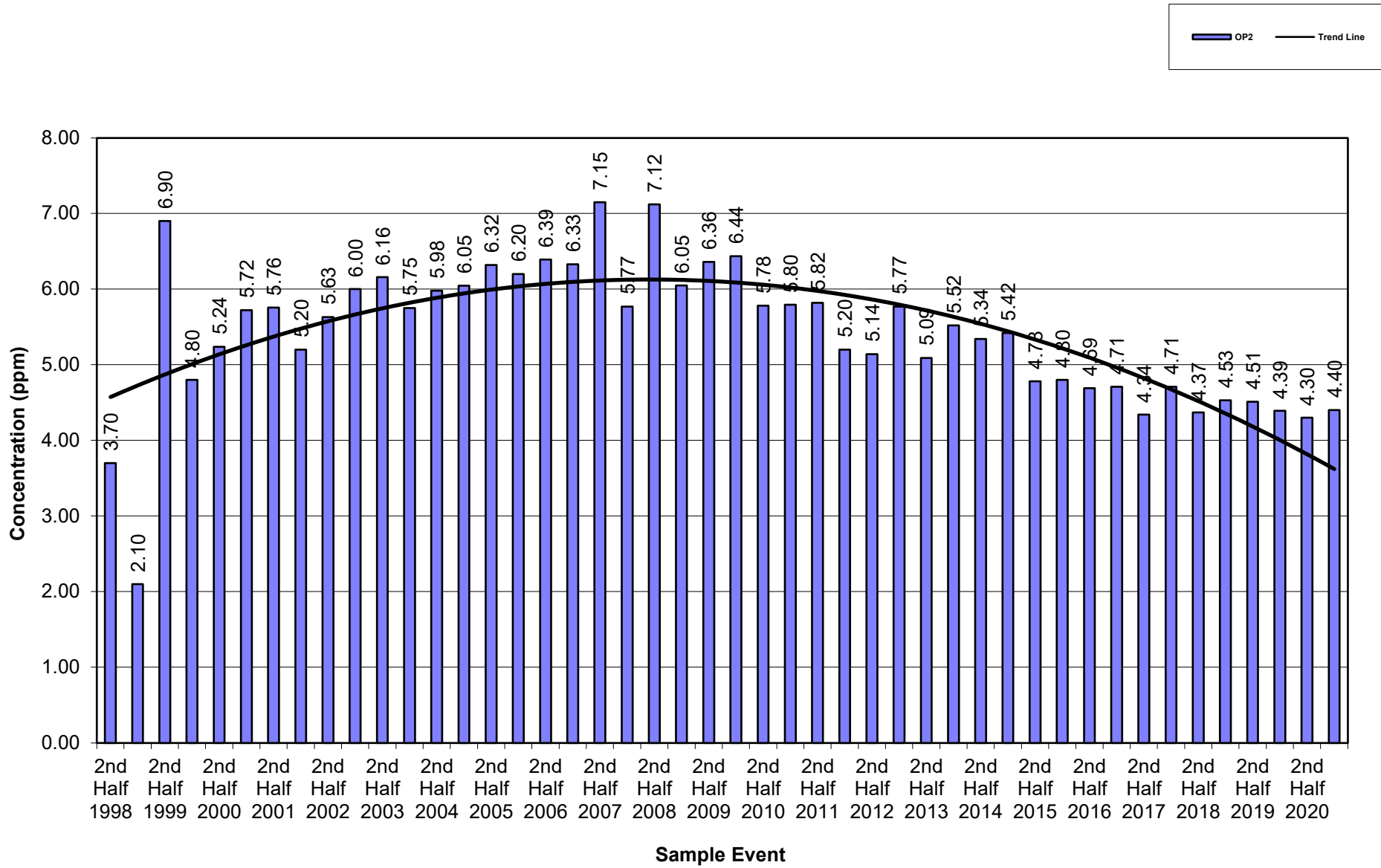


Figure 3-9
Total Dissolved Chromium Concentrations in Groundwater for OP-11

(Values between 1998 and 2001 are averaged over a six month period. Subsequent values represent a individual sample results. See Table 3-1)

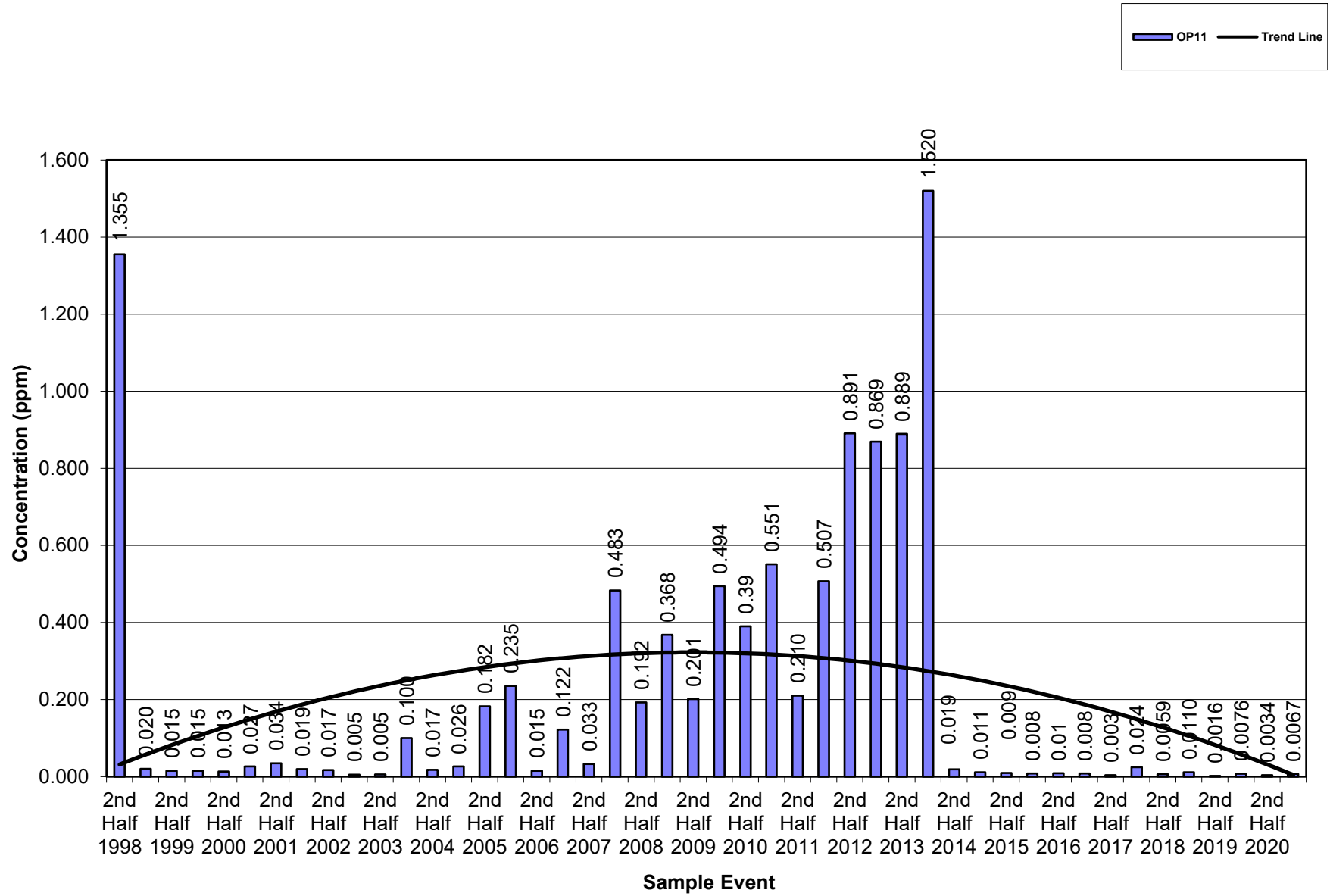


Figure 3-10
Total Dissolved Chromium Concentrations in Groundwater for NWM-27
 (Values between 1998 and 2001 are averaged over a six month period. Subsequent values represent a individual sample results. See Table 3-1)

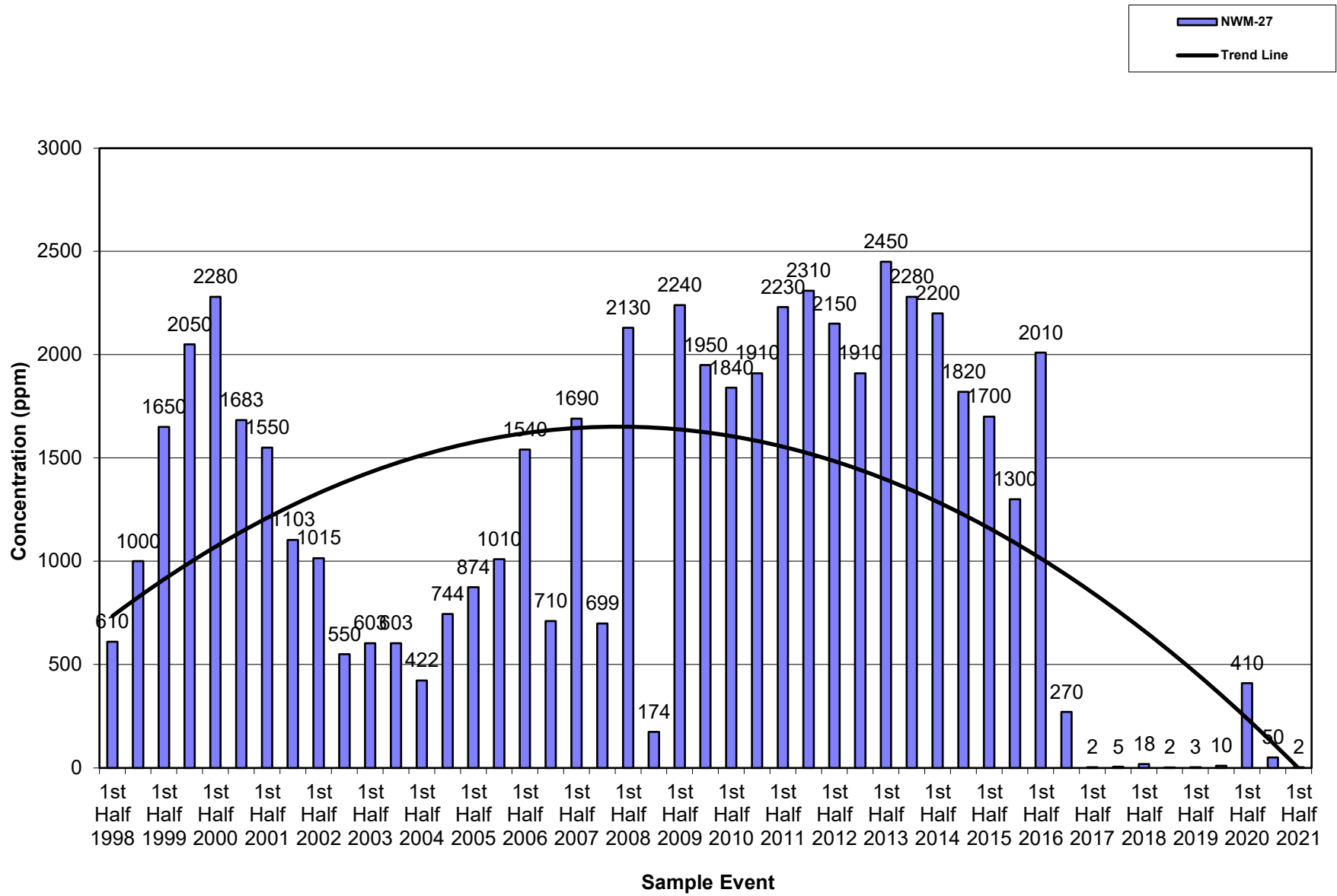


Figure 3-11 Total Dissolved Cyanide Concentrations in Groundwater OP-2

(Values between 1998 and 2001 are averaged over a six month period. Subsequent values represent a individual sample results. See Table 3-1)

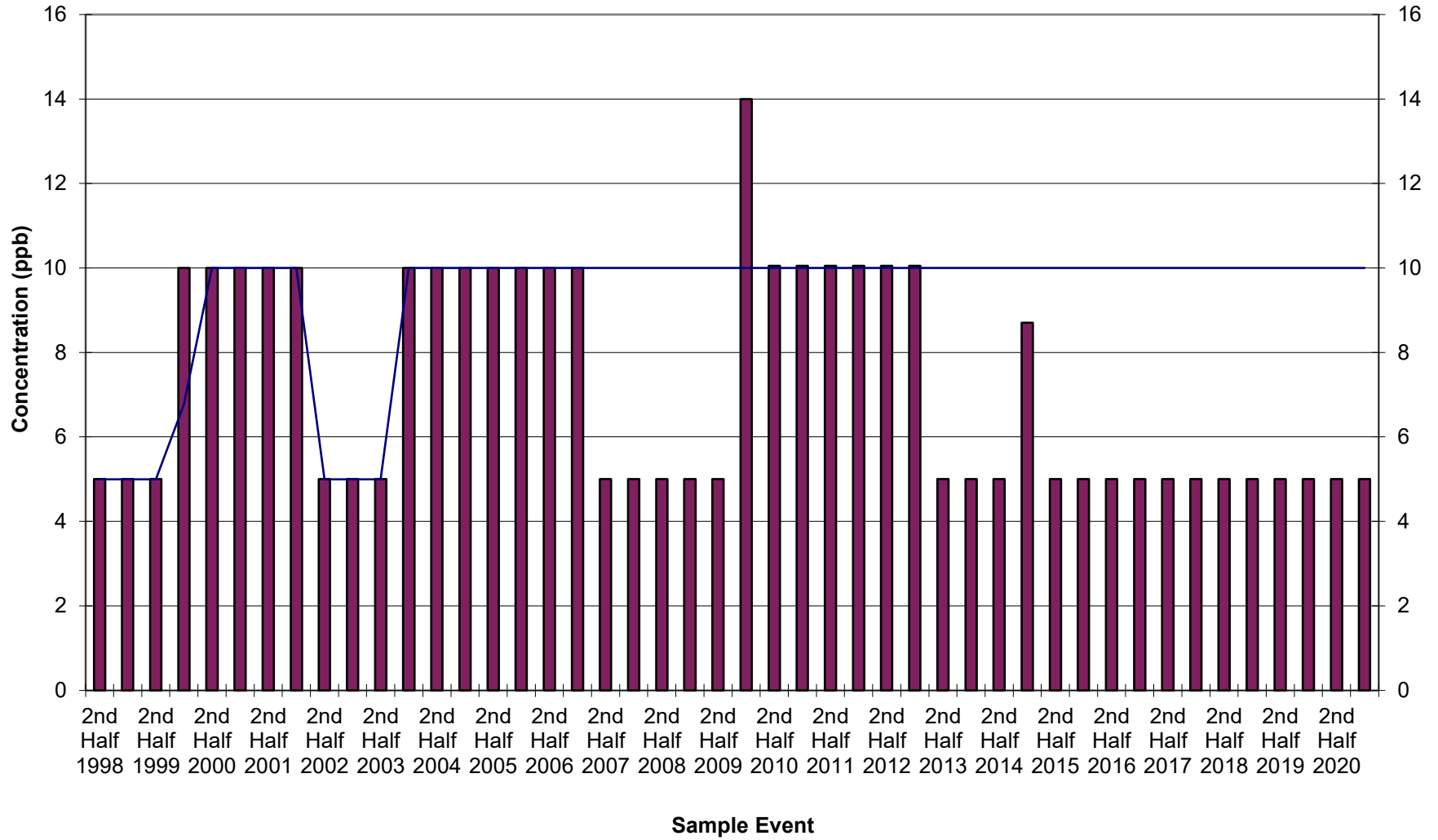
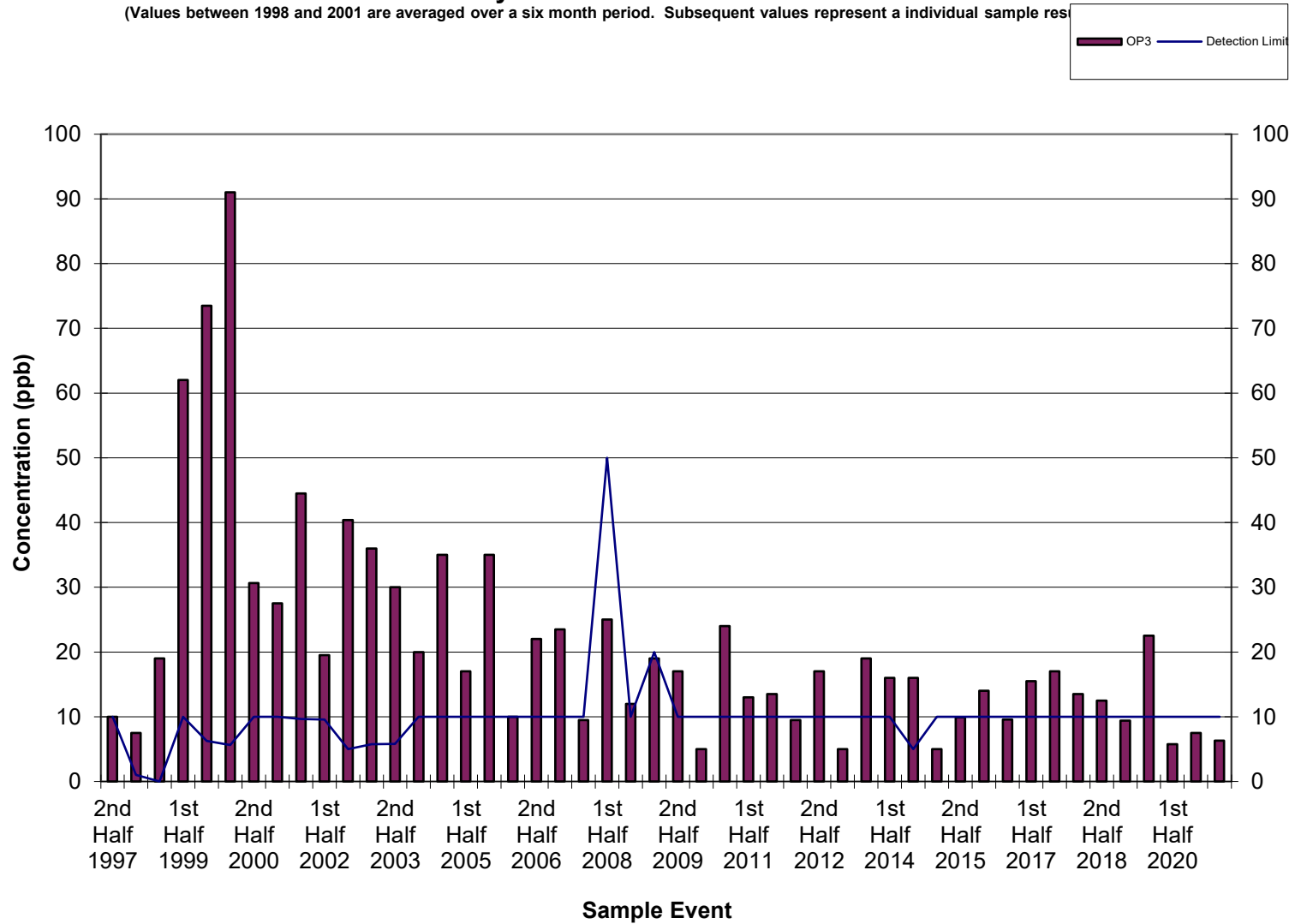


Figure 3-12
Total Dissolved Cyanide Concentrations in Groundwater OP-3
 (Values between 1998 and 2001 are averaged over a six month period. Subsequent values represent a individual sample res)



4. Drainage Layer Monitoring

4.1 Methodology

Section V, Paragraph 7(a) of the Consent Decree requires the promulgation of an SSMP to establish requirements to monitor the performance of the remedial action. Annual sampling of water passing through the drainage layer and infiltration trench is one of the methods used to evaluate this performance. Four perimeter locations, depicted in Figure 4-1, have been sampled for total chromium, filtered total chromium, and filtered total cyanide. As part of the Area 1, Phase 1 construction, one of the perimeter locations (SSMP4) was relocated, and an additional perimeter location (SSMP4A) was added. The relocated location and additional location were sampled during the April 8, 2015, sampling event. The depth to water in each sampling location is checked monthly to gauge the flow of water, if any, from the drainage layer into the sample point. Sample point SSSP1 is located at the end of a perforated pipe running within a toe drain along the landward perimeter of the site. Points SSMP2 and SSMP3 are located within an infiltration trench running along the harbor perimeter of the site. The other two locations, SSMP4 and SSMP4A, are located at the intersection of a pair of drainpipes located to the east and west of the Exelon Tower in a valley in the synthetic layers and the originally installed toe drain system. SSMP4 drains to the east around the site and out through SSMP1. SSMP4A connects to the original HDPE drainpipe located in the rip rap fill outboard of the hydraulic barrier.

Before sample collection begins, a volume of water is analyzed for temperature, dissolved oxygen, specific conductance, and redox potential. Three sample volumes are then withdrawn from the sample point using a peristaltic pump and dedicated tubing. The sampling time is recorded. Once the samples are collected, the appropriate samples are filtered; then all of the samples are preserved, placed on ice, and transferred to the laboratory using documented chain-of-custody procedures. The samples are analyzed for total chromium and total dissolved chromium by the laboratory using EPA SW-846 Method 6010B or for total dissolved cyanide using EPA SW-846 Method 9014, whichever method is stated on the chain-of-custody form for that particular sample. Field blanks, temperature blanks, and rinsate blanks are also collected.

MES performs all sampling. Lancaster Laboratories performs all analysis. Results received from the laboratory are entered into a database.

Beginning in the first quarter of 2017, sampling of the drainage layer was performed to establish a new baseline as part of the revision to the site Surface Soil Monitoring Plan. Drainage layer sampling was performed approximately every 6 weeks over the course of 1 year. The last of the eight sampling events was performed on January 18, 2018. The results of the re-baseline sampling are currently under review and will be incorporated and submitted as an addendum to the revised SSMP document.

4.2 Current Quarter Results

Drainage layer samples were collected on April 28, 2021. The results from the event are attached to this report as Appendix C. Water elevations from each sample point, the tidal elevation when the water elevation was taken, and monthly rainfall totals are presented in Figure 4-2.

The validation report for the sampling event is included in Appendix D.

4.2.1 Chromium

The total chromium results for the current sample round, as well as historical results, are shown in Tables 4-1 through 4-5. Total chromium levels for the 2020 drainage layer sampling were similar to the results of the 2019 sampling.

4.2.2 Dissolved Chromium

The total dissolved chromium results for the current sample round, as well as historical results, are shown in Tables 4-1 through 4-5. Dissolved chromium results were below the limit of quantitation and the method detection limit at most sampled locations.

4.2.3 Cyanide

The total dissolved cyanide results, as well as historical results, for the sample points are shown in Tables 4-1 through 4-5. The total dissolved cyanide results were below the sample detection limit at all locations.

4.3 Trend Analysis

Results from all SSMP sampling locations were consistent with sampling from the 2019 drainage layer sampling. Current and historical sampling results are provided in Tables 4-1 through 4-5.

Table 4-1
 Drainage Layer Sampling Data SSMP1
 Second Quarter 2021

Year	CR mg/L	CR (Filtered) Mg/L	Cyanide µg/l	Spec. Cond. ms/cm	pH S.U.	Temp. °C	D.O. mg/L	ORP mV
2021	-	-	-	-	-	-	-	-
2020	0.0057	0.0047	5	2.3	7.47	19.03	3.97	155
2019	0.0643	0.0053	5	0.699	7.37	16.56	2.73	59
2018	0.0037	0.0033	5	1.91	7.24	14.11	3.09	49
2017	0.0385	0.0041	5	0.00	6.73	15.37	4.26	144
2016	0.0301	0.002	5	1.96	7.50	27.09	6.25	111
2015	0.0041	0.0013	5		6.46	9.55	4.85	206
2014	0.0027	0.0016	5	0.316	6.71	12.6	10.74	3
2013	0.0031	0.0018	5	0.75	6.98	21.19	5.14	146
2012	0.0046	0.0029	10	0.795	5.68	14.58	6.13	260
2011	0.0079	0.0034	5	0.901	6.62	19.7	0.37	9
2010	0.0061	0.0034	5	-	-	-	-	-
2009	0.0032	0.0095	5	0.704	-	13.5	8.95	-
2008	0.0289	0.0023	5	-	-	20	6.43	-
2007	0.0793	0.015	10	-	-	17.38	0	-
2006	0.0103	0.015	10	0.661	6.39	19.1	7.98	-
2005	0.0053	0.015	10	795	6.64	16.4	-	-
2004	0.01	0.01	10	1448	6.7	22.6	4.9	-
2003	0.0121	0.006	5	568	7.64	15.1	3.15	-
2002	0.008	0.008	10	0.63	7.16	11.1	9.26	-
2001	0.01	0.01	10	3.3	6.5	8.8	-	-
2000	0.011	0.01	10	-	-	-	-	-

Table 4-2
 Drainage Layer Sampling Data SSMP2
 Second Quarter 2021

Year	CR mg/L	CR (Filtered) mg/L	Cyanide µg/l	Spec. Cond. ms/cm	pH S.U.	Temp. °C	D.O. mg/L	ORP mV
2021	0.0045	0.029	10	0.232	6.10	19.95	6.1	170
2020	0.0016	0.0016	5	0.177	6.57	21.94	4.09	228
2019	0.0053	0.0053	5	0.128	7.07	18.40	3.26	269
2018	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-
2016	0.0439	0.002	5	1.64	7.90	25.47	4.53	18
2015	0.0038	0.0013	5	1.56	8.17	8.21	5.60	143
2014	0.0033	0.0017	5	1.35	6.93	13.43	9.64	-24
2013	0.0011	0.0011	5	1.20	6.90	21.65	3.86	78
2012	0.0028	0.0014	1	2.54	6.59	14.22	5.07	200
2011	0.0034	0.0034	5	2.01	6.5	20.1	0.88	34
2010	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-
2007	0.116	0.015	10	-	-	-	-	-
2006	0.015	0.015	10	20.1	2.59	19.4	7.84	-
2005	0.015	0.015	10	11360	7.27	18.3	-	-
2004	0.01	0.01	10	123.5	6.99	23.5	3.37	-
2003	0.005	0.005	5	360.8	7.92	15	5.16	-
2002	0.008	0.008	10	0.246	7.14	8.3	10.65	-
2001	0.01	0.01	10	66.4	7.23	6.7	-	-
2000	0.01	0.01	10	-	-	-	-	-

Table 4-3
 Drainage Layer Sampling Data SSMP3
 Second Quarter 2021

Year	CR mg/L	CR (Filtered) mg/L	Cyanide µg/l	Spec. Cond. ms/cm	pH S.U.	Temp. °C	D.O. mg/L	ORP mV
2021	0.0052	0.015	10	18.7	7.44	18.4	18.81	-139
2020	0.0016	0.0016	5	20.3	7.39	19.62	2.71	-246
2019	0.0074	0.0053	5	17.6	7.73	18.79	1.37	-277
2018	0.0033	0.0033	5	23.9	6.49	13.06	1.38	92
2017	0.0047	0.0021	5	29.1	7.20	17.41	5.32	-145
2016	0.0048	0.002	5	23.3	7.64	18.12	4.93	-9
2015	0.0049	0.0013	5	18.4	6.14	8.79	4.12	127
2014	0.0030	0.0020	5	19.3	6.69	10.98	7.30	-104
2013	0.0011	0.0012	5	18.9	7.00	22.54	8.05	-98
2012	0.0016	0.0019	10	13.8	7.14	14.79	8.82	167
2011	0.0034	0.0034	5	2.696	6.89	19.8	0.75	12
2010	0.0034	0.0034	5	-	-	-	-	-
2009	0.003	0.003	5	31.9	-	13.8	9.88	-
2008	0.0023	0.0023	5	-	-	19.1	3.26	-
2007	0.015	0.015	10	-	-	20.89	0	-
2006	0.015	0.015	10	12.9	6.71	20	4.11	-
2005	0.015	0.015	10	6460	6.35	19.5	-	-
2004	0.01	0.01	10	5750	7.45	23.8	4.9	-
2003	0.005	0.005	5	1919	7.38	15.1	3.35	-
2002	0.008	0.008	10	23.8	6.95	8.3	4.9	-
2001	0.01	0.01	10	23.55	7.21	6.8	-	-
2000	0.01	0.01	10	-	-	-	-	-

Table 4-4
 Drainage Layer Sampling Data SSMP4 (Relocated between 2014 and 2015)
 Second Quarter 2021

Year	CR mg/L	CR (Filtered) mg/L	Cyanide µg	Spec. Cond. ms/cm	pH S.U.	Temp. °C	D.O. mg/L	ORP mV
2021	0.0098	0.015	11	24.8	7.82	19.45	6.72	23
2020	0.0016	0.0027	5	9.36	6.91	16.01	7.51	114
2019	0.0064	0.0062	5	5.58	6.93	16.61	2.75	277
2018	0.005	0.0038	16	18.90	7.10	12.04	0.00	73
2017	0.004	0.0049	20	7.150	8.27	13.62	2.23	176
2016	0.0169	0.0156	5	1.95	7.41	13.85	9.78	310
2015 ¹	0.0329	0.0173	5	0.793	8.82	9.50	5.64	85
2014	0.0033	0.0031	5	1.95	6.69	7.31	7.51	85
2013	0.0083	0.0069	5	1.83	6.51	20.05	8.64	218
2012	0.0106	0.0110	10	2.38	7.32	15.40	9.18	189
2011	0.0058	0.004	5	1.592	7.34	19.8	0.88	41
2010	0.0073	0.0069	5	-	-	-	-	-
2009	0.0093	0.0086	5	6.44	-	13.1	10.79	-
2008	0.0023	0.0023	5	-	-	19	3.1	-
2007	0.0049	0.0024	10	-	-	19.94	9.02	-
2006	0.015	0.015	10	1.46	7.19	18.7	5.82	-
2005	0.015	0.015	10	1215	7.01	19.1	-	-
2004	0.0043	0.0037	10	5756	7.44	21.1	6.14	-
2003	0.0031	0.0024	5	677	8.26	15	6.71	-
2002	0.008	0.008	10	1.62	7.3	9.7	10.27	-
2001	0.01	0.01	10	1376	7.78	7.2	-	-
2000	0.01	0.01	10	-	-	-	-	-

Note 1 – Sample was erroneously labelled SSMP4A rather than SSMP4 in the field

Table 4-5
 Drainage Layer Sampling Data SSMP4A
 Second Quarter 2021

Year	CR mg/L	CR (Filtered) mg/L	Cyanide µg/L	Spec. Cond. ms/cm	pH S.U.	Temp. °C	D.O. mg/L	ORP mV
2021	0.013	0.0026	10	0.504	8.70	23.93	13.56	56
2020	0.0031	0.0016	5	6.58	7.31	17.42	4.4	108
2019	0.0207	0.0053	5	0.629	7.78	17.19	3.18	109
2018	0.0037	0.0033	5	3.14	7.54	15.10	3.02	96
2017	0.007	0.0037	5	1.04	7.90	15.27	3.11	115
2016	0.0458	0.0237	5	5.41	7.99	15.88	9.71	107
2015 ¹	0.17	0.0354	5	0.793	8.64	9.31	5.99	62

Note 1 – This sample was labelled SSMP4 rather than SSMP4A in the field

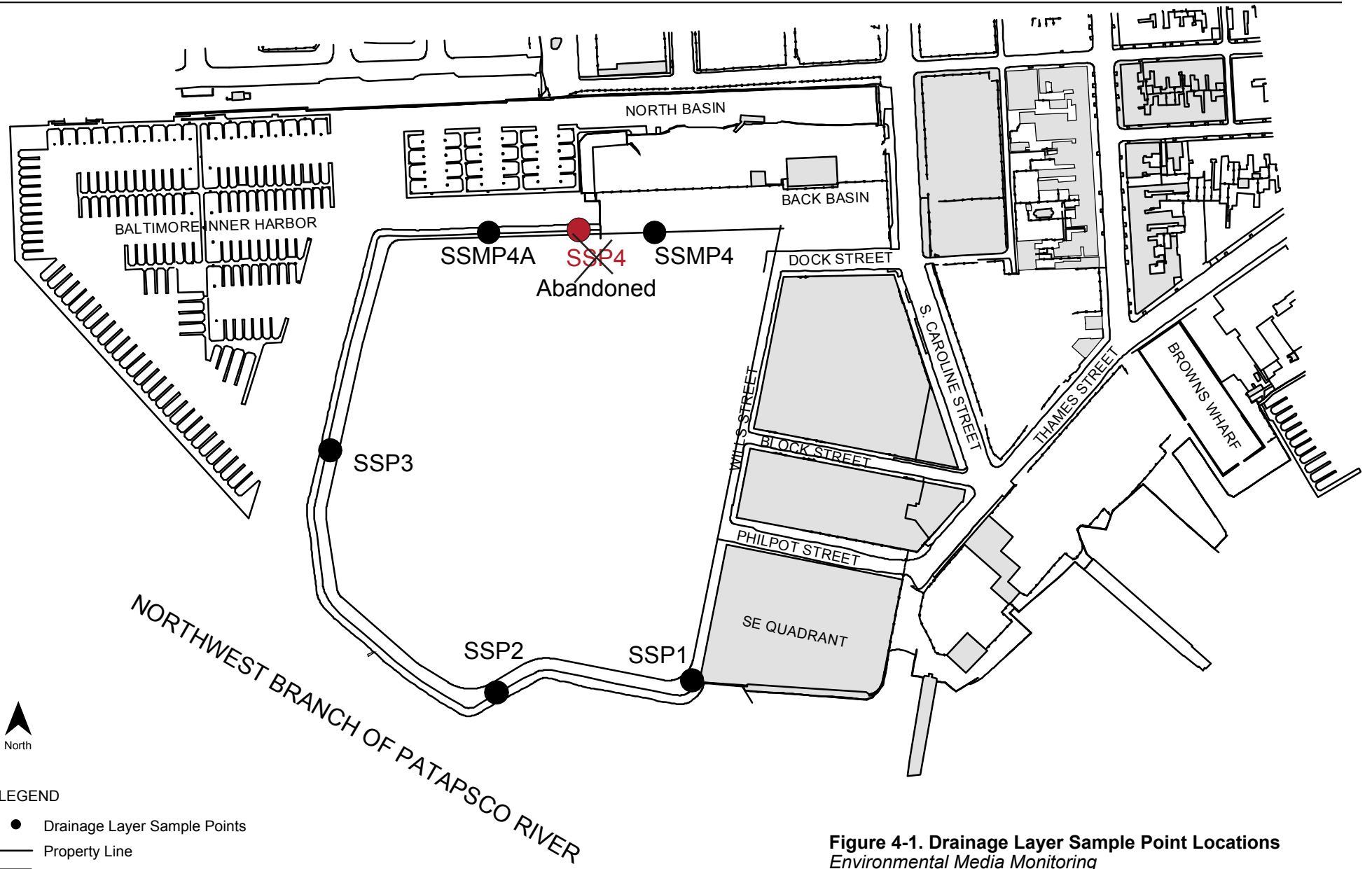
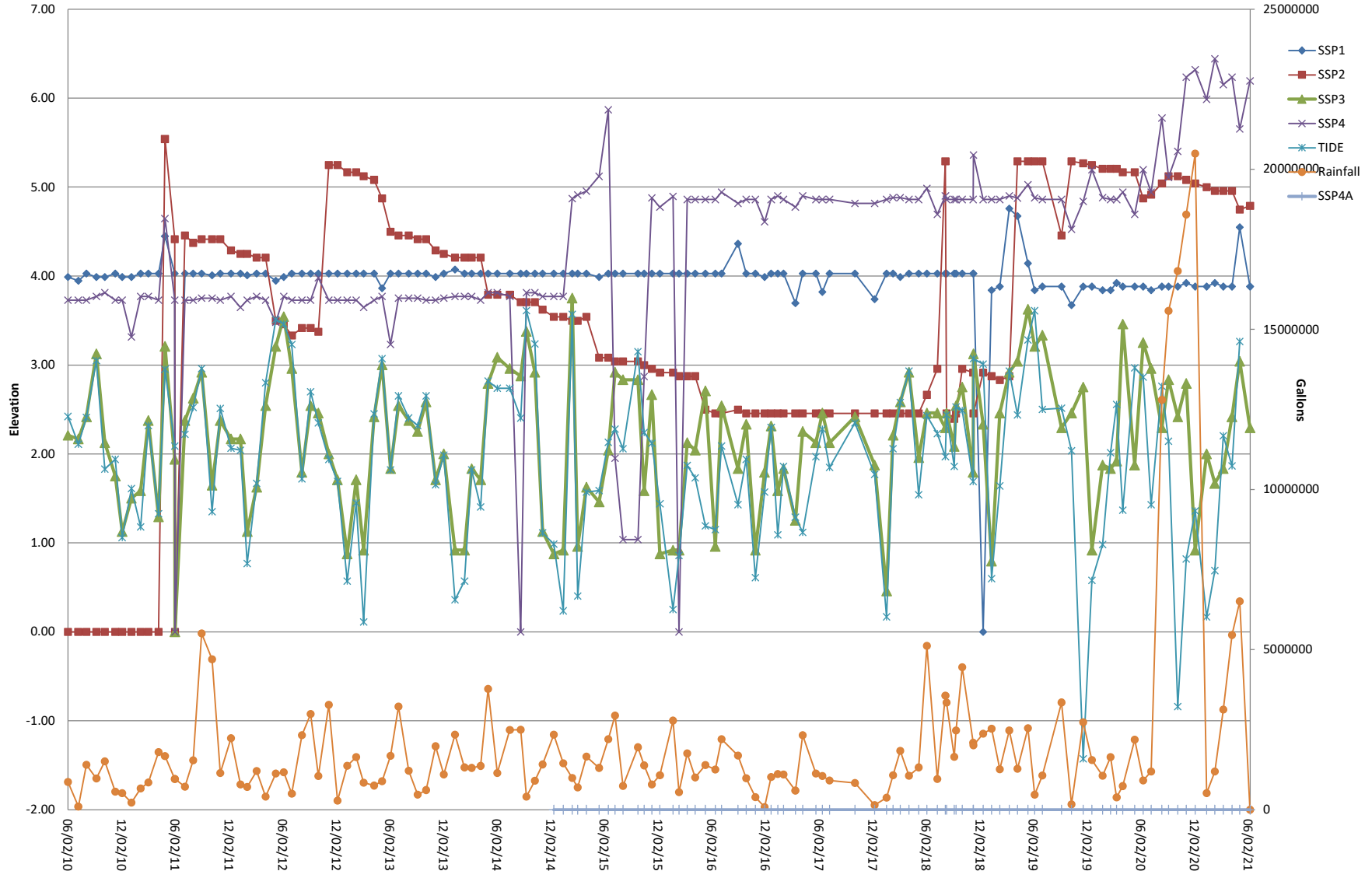


Figure 4-1. Drainage Layer Sample Point Locations
Environmental Media Monitoring

Drainage Layer Sample Points Water Depths
Figure 4-2



Appendix A
Surface Water Sampling Program Data

Appendix A-1
Raw Laboratory Data—April 2021

ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300


Laboratory Job ID: 410-35284-1

Client Project/Site: Baltimore Inner Harbor, MD

For:

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

Attn: Ms. Maria Kaouris



Authorized for release by:
4/19/2021 11:45:32 AM

Natalie Luciano, Principal Project Manager
(717)556-7258

Natalie.Luciano@eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
 - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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A handwritten signature in black ink, appearing to read "Natalie Luciano".

Natalie Luciano
Principal Project Manager
4/19/2021 11:45:32 AM



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Definitions/Glossary

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Qualifiers

Metals

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Job ID: 410-35284-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-35284-1

Receipt

The samples were received on 4/8/2021 5:19 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.7°C and 2.8°C

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): 12B_040721 (410-35284-20). The container labels list a collection time of 1016, while the COC lists 1018. The client COC was followed.

Metals

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



Detection Summary

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: 3T_040721

Lab Sample ID: 410-35284-1

No Detections.

Client Sample ID: 3B_040721

Lab Sample ID: 410-35284-2

No Detections.

Client Sample ID: 4T_040721

Lab Sample ID: 410-35284-3

No Detections.

Client Sample ID: 4B_040721

Lab Sample ID: 410-35284-4

No Detections.

Client Sample ID: 5T_040721

Lab Sample ID: 410-35284-5

No Detections.

Client Sample ID: 5B_040721

Lab Sample ID: 410-35284-6

No Detections.

Client Sample ID: 6T_040721

Lab Sample ID: 410-35284-7

No Detections.

Client Sample ID: 6B_040721

Lab Sample ID: 410-35284-8

No Detections.

Client Sample ID: 7T_040721

Lab Sample ID: 410-35284-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	2.3	J	15	1.6	ug/L	1		6010C	Dissolved

Client Sample ID: 7B_040721

Lab Sample ID: 410-35284-10

No Detections.

Client Sample ID: 8T_040721

Lab Sample ID: 410-35284-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	1.9	J	15	1.6	ug/L	1		6010C	Dissolved

Client Sample ID: 8B_040721

Lab Sample ID: 410-35284-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	1.9	J	15	1.6	ug/L	1		6010C	Dissolved

Client Sample ID: 9T_040721

Lab Sample ID: 410-35284-13

No Detections.

Client Sample ID: 9B_040721

Lab Sample ID: 410-35284-14

No Detections.

Client Sample ID: 10T_040721

Lab Sample ID: 410-35284-15

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: 10B_040721 **Lab Sample ID: 410-35284-16**

No Detections.

Client Sample ID: 11T_040721 **Lab Sample ID: 410-35284-17**

No Detections.

Client Sample ID: 11B_040721 **Lab Sample ID: 410-35284-18**

No Detections.

Client Sample ID: 12T_040721 **Lab Sample ID: 410-35284-19**

No Detections.

Client Sample ID: 12B_040721 **Lab Sample ID: 410-35284-20**

No Detections.

Client Sample ID: 13T_040721 **Lab Sample ID: 410-35284-21**

No Detections.

Client Sample ID: 13B_040721 **Lab Sample ID: 410-35284-22**

No Detections.

Client Sample ID: 14T_040721 **Lab Sample ID: 410-35284-23**

No Detections.

Client Sample ID: 14B_040721 **Lab Sample ID: 410-35284-24**

No Detections.

Client Sample ID: 15T_040721 **Lab Sample ID: 410-35284-25**

No Detections.

Client Sample ID: 15B_040721 **Lab Sample ID: 410-35284-26**

No Detections.

Client Sample ID: 16T_040721 **Lab Sample ID: 410-35284-27**

No Detections.

Client Sample ID: 16B_040721 **Lab Sample ID: 410-35284-28**

No Detections.

Client Sample ID: 17T_040721 **Lab Sample ID: 410-35284-29**

No Detections.

Client Sample ID: 17B_040721 **Lab Sample ID: 410-35284-30**

No Detections.

Client Sample ID: 18T_040721 **Lab Sample ID: 410-35284-31**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC



Detection Summary

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: 18B_040721

Lab Sample ID: 410-35284-32

No Detections.

Client Sample ID: 19T_040721

Lab Sample ID: 410-35284-33

No Detections.

Client Sample ID: 19B_040721

Lab Sample ID: 410-35284-34

No Detections.

Client Sample ID: 20T_040721

Lab Sample ID: 410-35284-35

No Detections.

Client Sample ID: 20B_040721

Lab Sample ID: 410-35284-36

No Detections.

Client Sample ID: Cent T_040721

Lab Sample ID: 410-35284-37

No Detections.

Client Sample ID: Cent B_040721

Lab Sample ID: 410-35284-38

No Detections.

Client Sample ID: Lady T_040721

Lab Sample ID: 410-35284-39

No Detections.

Client Sample ID: Lady B_040721

Lab Sample ID: 410-35284-40

No Detections.

Client Sample ID: D1_040721

Lab Sample ID: 410-35284-41

No Detections.

Client Sample ID: D2_040721

Lab Sample ID: 410-35284-42

No Detections.

Client Sample ID: D3_040721

Lab Sample ID: 410-35284-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	2.1	J	15	1.6	ug/L	1		6010C	Dissolved

Client Sample ID: D4_040721

Lab Sample ID: 410-35284-44

No Detections.

Client Sample ID: FB_040721

Lab Sample ID: 410-35284-45

No Detections.

Client Sample ID: RB1_040721

Lab Sample ID: 410-35284-46

No Detections.

Client Sample ID: RB2_040721

Lab Sample ID: 410-35284-47

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: 3T_040721

Date Collected: 04/07/21 09:40

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-1

Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:38	04/15/21 14:09	1

Client Sample ID: 3B_040721

Date Collected: 04/07/21 09:41

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-2

Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:38	04/15/21 16:01	1

Client Sample ID: 4T_040721

Date Collected: 04/07/21 09:44

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-3

Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:38	04/15/21 16:04	1

Client Sample ID: 4B_040721

Date Collected: 04/07/21 09:46

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-4

Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:38	04/15/21 16:08	1

Client Sample ID: 5T_040721

Date Collected: 04/07/21 09:47

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-5

Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:49	04/15/21 21:04	1

Client Sample ID: 5B_040721

Date Collected: 04/07/21 09:49

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-6

Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:49	04/15/21 21:07	1

Client Sample ID: 6T_040721

Date Collected: 04/07/21 09:50

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-7

Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:49	04/15/21 21:16	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: 6B_040721

Lab Sample ID: 410-35284-8

Date Collected: 04/07/21 09:52

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:49	04/15/21 21:20	1

Client Sample ID: 7T_040721

Lab Sample ID: 410-35284-9

Date Collected: 04/07/21 09:53

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	2.3	J	15	1.6	ug/L		04/14/21 14:49	04/15/21 21:23	1

Client Sample ID: 7B_040721

Lab Sample ID: 410-35284-10

Date Collected: 04/07/21 09:54

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:49	04/15/21 21:26	1

Client Sample ID: 8T_040721

Lab Sample ID: 410-35284-11

Date Collected: 04/07/21 09:56

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	1.9	J	15	1.6	ug/L		04/14/21 14:49	04/15/21 21:30	1

Client Sample ID: 8B_040721

Lab Sample ID: 410-35284-12

Date Collected: 04/07/21 09:58

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	1.9	J	15	1.6	ug/L		04/14/21 14:49	04/15/21 21:33	1

Client Sample ID: 9T_040721

Lab Sample ID: 410-35284-13

Date Collected: 04/07/21 09:59

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:49	04/15/21 21:36	1

Client Sample ID: 9B_040721

Lab Sample ID: 410-35284-14

Date Collected: 04/07/21 10:01

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:49	04/15/21 21:39	1

Client Sample Results

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: 10T_040721

Lab Sample ID: 410-35284-15

Date Collected: 04/07/21 10:02

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:49	04/15/21 21:43	1

Client Sample ID: 10B_040721

Lab Sample ID: 410-35284-16

Date Collected: 04/07/21 10:04

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:49	04/15/21 21:46	1

Client Sample ID: 11T_040721

Lab Sample ID: 410-35284-17

Date Collected: 04/07/21 10:11

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:49	04/15/21 20:44	1

Client Sample ID: 11B_040721

Lab Sample ID: 410-35284-18

Date Collected: 04/07/21 10:13

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:49	04/15/21 21:55	1

Client Sample ID: 12T_040721

Lab Sample ID: 410-35284-19

Date Collected: 04/07/21 10:16

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:49	04/15/21 21:59	1

Client Sample ID: 12B_040721

Lab Sample ID: 410-35284-20

Date Collected: 04/07/21 10:18

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:49	04/15/21 22:02	1

Client Sample ID: 13T_040721

Lab Sample ID: 410-35284-21

Date Collected: 04/07/21 10:19

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:38	04/15/21 16:11	1

Client Sample Results

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: 13B_040721

Lab Sample ID: 410-35284-22

Date Collected: 04/07/21 10:21

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:49	04/15/21 22:05	1

Client Sample ID: 14T_040721

Lab Sample ID: 410-35284-23

Date Collected: 04/07/21 10:23

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:49	04/15/21 22:09	1

Client Sample ID: 14B_040721

Lab Sample ID: 410-35284-24

Date Collected: 04/07/21 10:24

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 18:54	1

Client Sample ID: 15T_040721

Lab Sample ID: 410-35284-25

Date Collected: 04/07/21 10:25

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 18:57	1

Client Sample ID: 15B_040721

Lab Sample ID: 410-35284-26

Date Collected: 04/07/21 10:26

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 19:07	1

Client Sample ID: 16T_040721

Lab Sample ID: 410-35284-27

Date Collected: 04/07/21 10:28

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 19:10	1

Client Sample ID: 16B_040721

Lab Sample ID: 410-35284-28

Date Collected: 04/07/21 10:30

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 19:13	1

Client Sample Results

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: 17T_040721

Lab Sample ID: 410-35284-29

Date Collected: 04/07/21 10:31

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 19:16	1

Client Sample ID: 17B_040721

Lab Sample ID: 410-35284-30

Date Collected: 04/07/21 10:33

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 19:20	1

Client Sample ID: 18T_040721

Lab Sample ID: 410-35284-31

Date Collected: 04/07/21 10:35

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 19:23	1

Client Sample ID: 18B_040721

Lab Sample ID: 410-35284-32

Date Collected: 04/07/21 10:36

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 19:26	1

Client Sample ID: 19T_040721

Lab Sample ID: 410-35284-33

Date Collected: 04/07/21 10:49

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 18:34	1

Client Sample ID: 19B_040721

Lab Sample ID: 410-35284-34

Date Collected: 04/07/21 10:50

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 19:30	1

Client Sample ID: 20T_040721

Lab Sample ID: 410-35284-35

Date Collected: 04/07/21 10:53

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 19:33	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: 20B_040721

Date Collected: 04/07/21 10:55

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-36

Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 19:36	1

Client Sample ID: Cent T_040721

Date Collected: 04/07/21 09:36

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-37

Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:49	04/15/21 22:12	1

Client Sample ID: Cent B_040721

Date Collected: 04/07/21 09:38

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-38

Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 19:46	1

Client Sample ID: Lady T_040721

Date Collected: 04/07/21 09:33

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-39

Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 19:49	1

Client Sample ID: Lady B_040721

Date Collected: 04/07/21 09:34

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-40

Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 19:52	1

Client Sample ID: D1_040721

Date Collected: 04/07/21 09:46

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-41

Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 19:56	1

Client Sample ID: D2_040721

Date Collected: 04/07/21 10:02

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-42

Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 19:59	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: D3_040721

Lab Sample ID: 410-35284-43

Date Collected: 04/07/21 10:24

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	2.1	J	15	1.6	ug/L		04/14/21 14:16	04/15/21 16:34	1

Client Sample ID: D4_040721

Lab Sample ID: 410-35284-44

Date Collected: 04/07/21 10:53

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:16	04/15/21 16:37	1

Client Sample ID: FB_040721

Lab Sample ID: 410-35284-45

Date Collected: 04/07/21 10:46

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:16	04/15/21 16:47	1

Client Sample ID: RB1_040721

Lab Sample ID: 410-35284-46

Date Collected: 04/07/21 10:09

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:16	04/15/21 16:50	1

Client Sample ID: RB2_040721

Lab Sample ID: 410-35284-47

Date Collected: 04/07/21 10:48

Matrix: Water

Date Received: 04/08/21 17:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:16	04/15/21 16:53	1

QC Sample Results

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-114548/1-A
Matrix: Water
Analysis Batch: 115260

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114548

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:16	04/15/21 16:02	1

Lab Sample ID: LCS 410-114548/2-A
Matrix: Water
Analysis Batch: 115260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114548

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	499	511		ug/L		102	80 - 120

Lab Sample ID: MB 410-114557/1-A
Matrix: Water
Analysis Batch: 115315

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114557

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:23	04/15/21 18:22	1

Lab Sample ID: LCS 410-114557/2-A
Matrix: Water
Analysis Batch: 115315

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114557

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	499	505		ug/L		101	80 - 120

Lab Sample ID: MB 410-114567/1-A
Matrix: Water
Analysis Batch: 115220

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114567

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:38	04/15/21 13:57	1

Lab Sample ID: LCS 410-114567/2-A
Matrix: Water
Analysis Batch: 115220

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114567

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	499	479		ug/L		96	80 - 120

Lab Sample ID: MB 410-114571/1-A
Matrix: Water
Analysis Batch: 115356

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114571

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/14/21 14:49	04/15/21 20:32	1

Lab Sample ID: LCS 410-114571/2-A
Matrix: Water
Analysis Batch: 115356

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	499	496		ug/L		100	80 - 120

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QC Sample Results

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Method: 6010C - Metals (ICP)

Lab Sample ID: 410-35284-33 MS
Matrix: Water
Analysis Batch: 115315

Client Sample ID: 19T_040721
Prep Type: Dissolved
Prep Batch: 114557
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Chromium	ND		499	499		ug/L		100	75 - 125

Lab Sample ID: 410-35284-33 MSD
Matrix: Water
Analysis Batch: 115315

Client Sample ID: 19T_040721
Prep Type: Dissolved
Prep Batch: 114557
 %Rec. RPD

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chromium	ND		499	488		ug/L		98	75 - 125	2	20

Lab Sample ID: 410-35284-33 DU
Matrix: Water
Analysis Batch: 115315

Client Sample ID: 19T_040721
Prep Type: Dissolved
Prep Batch: 114557
 RPD

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Chromium	ND		ND		ug/L		NC	20

Lab Sample ID: 410-35284-1 MS
Matrix: Water
Analysis Batch: 115220

Client Sample ID: 3T_040721
Prep Type: Dissolved
Prep Batch: 114567
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Chromium	ND		499	468		ug/L		94	75 - 125

Lab Sample ID: 410-35284-1 MSD
Matrix: Water
Analysis Batch: 115220

Client Sample ID: 3T_040721
Prep Type: Dissolved
Prep Batch: 114567
 %Rec. RPD

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chromium	ND		499	469		ug/L		94	75 - 125	0	20

Lab Sample ID: 410-35284-21 MS
Matrix: Water
Analysis Batch: 115220

Client Sample ID: 13T_040721
Prep Type: Dissolved
Prep Batch: 114567
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Chromium	ND		499	479		ug/L		96	75 - 125

Lab Sample ID: 410-35284-1 DU
Matrix: Water
Analysis Batch: 115220

Client Sample ID: 3T_040721
Prep Type: Dissolved
Prep Batch: 114567
 RPD

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Chromium	ND		ND		ug/L		NC	20

Lab Sample ID: 410-35284-17 MS
Matrix: Water
Analysis Batch: 115356

Client Sample ID: 11T_040721
Prep Type: Dissolved
Prep Batch: 114571
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Chromium	ND		499	560		ug/L		112	75 - 125

QC Sample Results

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Method: 6010C - Metals (ICP)

Lab Sample ID: 410-35284-17 MSD
Matrix: Water
Analysis Batch: 115356

Client Sample ID: 11T_040721
Prep Type: Dissolved
Prep Batch: 114571

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND		499	536		ug/L		107	75 - 125	4	20

Lab Sample ID: 410-35284-37 MS
Matrix: Water
Analysis Batch: 115356

Client Sample ID: Cent T_040721
Prep Type: Dissolved
Prep Batch: 114571

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND		499	498		ug/L		100	75 - 125		

Lab Sample ID: 410-35284-17 DU
Matrix: Water
Analysis Batch: 115356

Client Sample ID: 11T_040721
Prep Type: Dissolved
Prep Batch: 114571

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND		ND		ug/L				NC	20

QC Association Summary

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Metals

Prep Batch: 114548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35284-43	D3_040721	Dissolved	Water	Non-Digest Prep	
410-35284-44	D4_040721	Dissolved	Water	Non-Digest Prep	
410-35284-45	FB_040721	Dissolved	Water	Non-Digest Prep	
410-35284-46	RB1_040721	Dissolved	Water	Non-Digest Prep	
410-35284-47	RB2_040721	Dissolved	Water	Non-Digest Prep	
MB 410-114548/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-114548/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Prep Batch: 114557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35284-24	14B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-25	15T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-26	15B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-27	16T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-28	16B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-29	17T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-30	17B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-31	18T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-32	18B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-33	19T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-34	19B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-35	20T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-36	20B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-38	Cent B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-39	Lady T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-40	Lady B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-41	D1_040721	Dissolved	Water	Non-Digest Prep	
410-35284-42	D2_040721	Dissolved	Water	Non-Digest Prep	
MB 410-114557/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-114557/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-35284-33 MS	19T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-33 MSD	19T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-33 DU	19T_040721	Dissolved	Water	Non-Digest Prep	

Prep Batch: 114567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35284-1	3T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-2	3B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-3	4T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-4	4B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-21	13T_040721	Dissolved	Water	Non-Digest Prep	
MB 410-114567/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-114567/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-35284-1 MS	3T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-1 MSD	3T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-21 MS	13T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-1 DU	3T_040721	Dissolved	Water	Non-Digest Prep	

Prep Batch: 114571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35284-5	5T_040721	Dissolved	Water	Non-Digest Prep	

QC Association Summary

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Metals (Continued)

Prep Batch: 114571 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35284-6	5B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-7	6T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-8	6B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-9	7T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-10	7B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-11	8T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-12	8B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-13	9T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-14	9B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-15	10T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-16	10B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-17	11T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-18	11B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-19	12T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-20	12B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-22	13B_040721	Dissolved	Water	Non-Digest Prep	
410-35284-23	14T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-37	Cent_T_040721	Dissolved	Water	Non-Digest Prep	
MB 410-114571/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-114571/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-35284-17 MS	11T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-17 MSD	11T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-37 MS	Cent_T_040721	Dissolved	Water	Non-Digest Prep	
410-35284-17 DU	11T_040721	Dissolved	Water	Non-Digest Prep	

Analysis Batch: 115220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35284-1	3T_040721	Dissolved	Water	6010C	114567
410-35284-2	3B_040721	Dissolved	Water	6010C	114567
410-35284-3	4T_040721	Dissolved	Water	6010C	114567
410-35284-4	4B_040721	Dissolved	Water	6010C	114567
410-35284-21	13T_040721	Dissolved	Water	6010C	114567
MB 410-114567/1-A	Method Blank	Total/NA	Water	6010C	114567
LCS 410-114567/2-A	Lab Control Sample	Total/NA	Water	6010C	114567
410-35284-1 MS	3T_040721	Dissolved	Water	6010C	114567
410-35284-1 MSD	3T_040721	Dissolved	Water	6010C	114567
410-35284-21 MS	13T_040721	Dissolved	Water	6010C	114567
410-35284-1 DU	3T_040721	Dissolved	Water	6010C	114567

Analysis Batch: 115260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35284-43	D3_040721	Dissolved	Water	6010C	114548
410-35284-44	D4_040721	Dissolved	Water	6010C	114548
410-35284-45	FB_040721	Dissolved	Water	6010C	114548
410-35284-46	RB1_040721	Dissolved	Water	6010C	114548
410-35284-47	RB2_040721	Dissolved	Water	6010C	114548
MB 410-114548/1-A	Method Blank	Total/NA	Water	6010C	114548
LCS 410-114548/2-A	Lab Control Sample	Total/NA	Water	6010C	114548

QC Association Summary

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Metals

Analysis Batch: 115315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35284-24	14B_040721	Dissolved	Water	6010C	114557
410-35284-25	15T_040721	Dissolved	Water	6010C	114557
410-35284-26	15B_040721	Dissolved	Water	6010C	114557
410-35284-27	16T_040721	Dissolved	Water	6010C	114557
410-35284-28	16B_040721	Dissolved	Water	6010C	114557
410-35284-29	17T_040721	Dissolved	Water	6010C	114557
410-35284-30	17B_040721	Dissolved	Water	6010C	114557
410-35284-31	18T_040721	Dissolved	Water	6010C	114557
410-35284-32	18B_040721	Dissolved	Water	6010C	114557
410-35284-33	19T_040721	Dissolved	Water	6010C	114557
410-35284-34	19B_040721	Dissolved	Water	6010C	114557
410-35284-35	20T_040721	Dissolved	Water	6010C	114557
410-35284-36	20B_040721	Dissolved	Water	6010C	114557
410-35284-38	Cent B_040721	Dissolved	Water	6010C	114557
410-35284-39	Lady T_040721	Dissolved	Water	6010C	114557
410-35284-40	Lady B_040721	Dissolved	Water	6010C	114557
410-35284-41	D1_040721	Dissolved	Water	6010C	114557
410-35284-42	D2_040721	Dissolved	Water	6010C	114557
MB 410-114557/1-A	Method Blank	Total/NA	Water	6010C	114557
LCS 410-114557/2-A	Lab Control Sample	Total/NA	Water	6010C	114557
410-35284-33 MS	19T_040721	Dissolved	Water	6010C	114557
410-35284-33 MSD	19T_040721	Dissolved	Water	6010C	114557
410-35284-33 DU	19T_040721	Dissolved	Water	6010C	114557

Analysis Batch: 115356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-35284-5	5T_040721	Dissolved	Water	6010C	114571
410-35284-6	5B_040721	Dissolved	Water	6010C	114571
410-35284-7	6T_040721	Dissolved	Water	6010C	114571
410-35284-8	6B_040721	Dissolved	Water	6010C	114571
410-35284-9	7T_040721	Dissolved	Water	6010C	114571
410-35284-10	7B_040721	Dissolved	Water	6010C	114571
410-35284-11	8T_040721	Dissolved	Water	6010C	114571
410-35284-12	8B_040721	Dissolved	Water	6010C	114571
410-35284-13	9T_040721	Dissolved	Water	6010C	114571
410-35284-14	9B_040721	Dissolved	Water	6010C	114571
410-35284-15	10T_040721	Dissolved	Water	6010C	114571
410-35284-16	10B_040721	Dissolved	Water	6010C	114571
410-35284-17	11T_040721	Dissolved	Water	6010C	114571
410-35284-18	11B_040721	Dissolved	Water	6010C	114571
410-35284-19	12T_040721	Dissolved	Water	6010C	114571
410-35284-20	12B_040721	Dissolved	Water	6010C	114571
410-35284-22	13B_040721	Dissolved	Water	6010C	114571
410-35284-23	14T_040721	Dissolved	Water	6010C	114571
410-35284-37	Cent T_040721	Dissolved	Water	6010C	114571
MB 410-114571/1-A	Method Blank	Total/NA	Water	6010C	114571
LCS 410-114571/2-A	Lab Control Sample	Total/NA	Water	6010C	114571
410-35284-17 MS	11T_040721	Dissolved	Water	6010C	114571
410-35284-17 MSD	11T_040721	Dissolved	Water	6010C	114571
410-35284-37 MS	Cent T_040721	Dissolved	Water	6010C	114571
410-35284-17 DU	11T_040721	Dissolved	Water	6010C	114571

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: 3T_040721

Lab Sample ID: 410-35284-1

Date Collected: 04/07/21 09:40

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114567	04/14/21 14:38	UJLA	ELLE
Dissolved	Analysis	6010C		1	115220	04/15/21 14:09	UCIG	ELLE

Client Sample ID: 3B_040721

Lab Sample ID: 410-35284-2

Date Collected: 04/07/21 09:41

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114567	04/14/21 14:38	UJLA	ELLE
Dissolved	Analysis	6010C		1	115220	04/15/21 16:01	UCIG	ELLE

Client Sample ID: 4T_040721

Lab Sample ID: 410-35284-3

Date Collected: 04/07/21 09:44

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114567	04/14/21 14:38	UJLA	ELLE
Dissolved	Analysis	6010C		1	115220	04/15/21 16:04	UCIG	ELLE

Client Sample ID: 4B_040721

Lab Sample ID: 410-35284-4

Date Collected: 04/07/21 09:46

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114567	04/14/21 14:38	UJLA	ELLE
Dissolved	Analysis	6010C		1	115220	04/15/21 16:08	UCIG	ELLE

Client Sample ID: 5T_040721

Lab Sample ID: 410-35284-5

Date Collected: 04/07/21 09:47

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 21:04	UCIG	ELLE

Client Sample ID: 5B_040721

Lab Sample ID: 410-35284-6

Date Collected: 04/07/21 09:49

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 21:07	UCIG	ELLE

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: 6T_040721

Date Collected: 04/07/21 09:50

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 21:16	UCIG	ELLE

Client Sample ID: 6B_040721

Date Collected: 04/07/21 09:52

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 21:20	UCIG	ELLE

Client Sample ID: 7T_040721

Date Collected: 04/07/21 09:53

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 21:23	UCIG	ELLE

Client Sample ID: 7B_040721

Date Collected: 04/07/21 09:54

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 21:26	UCIG	ELLE

Client Sample ID: 8T_040721

Date Collected: 04/07/21 09:56

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 21:30	UCIG	ELLE

Client Sample ID: 8B_040721

Date Collected: 04/07/21 09:58

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 21:33	UCIG	ELLE

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: 9T_040721

Date Collected: 04/07/21 09:59

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 21:36	UCIG	ELLE

Client Sample ID: 9B_040721

Date Collected: 04/07/21 10:01

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 21:39	UCIG	ELLE

Client Sample ID: 10T_040721

Date Collected: 04/07/21 10:02

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 21:43	UCIG	ELLE

Client Sample ID: 10B_040721

Date Collected: 04/07/21 10:04

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 21:46	UCIG	ELLE

Client Sample ID: 11T_040721

Date Collected: 04/07/21 10:11

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 20:44	UCIG	ELLE

Client Sample ID: 11B_040721

Date Collected: 04/07/21 10:13

Date Received: 04/08/21 17:19

Lab Sample ID: 410-35284-18

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 21:55	UCIG	ELLE

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: 12T_040721

Lab Sample ID: 410-35284-19

Date Collected: 04/07/21 10:16

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 21:59	UCIG	ELLE

Client Sample ID: 12B_040721

Lab Sample ID: 410-35284-20

Date Collected: 04/07/21 10:18

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 22:02	UCIG	ELLE

Client Sample ID: 13T_040721

Lab Sample ID: 410-35284-21

Date Collected: 04/07/21 10:19

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114567	04/14/21 14:38	UJLA	ELLE
Dissolved	Analysis	6010C		1	115220	04/15/21 16:11	UCIG	ELLE

Client Sample ID: 13B_040721

Lab Sample ID: 410-35284-22

Date Collected: 04/07/21 10:21

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 22:05	UCIG	ELLE

Client Sample ID: 14T_040721

Lab Sample ID: 410-35284-23

Date Collected: 04/07/21 10:23

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 22:09	UCIG	ELLE

Client Sample ID: 14B_040721

Lab Sample ID: 410-35284-24

Date Collected: 04/07/21 10:24

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 18:54	UCIG	ELLE

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: 15T_040721

Lab Sample ID: 410-35284-25

Date Collected: 04/07/21 10:25

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 18:57	UCIG	ELLE

Client Sample ID: 15B_040721

Lab Sample ID: 410-35284-26

Date Collected: 04/07/21 10:26

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 19:07	UCIG	ELLE

Client Sample ID: 16T_040721

Lab Sample ID: 410-35284-27

Date Collected: 04/07/21 10:28

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 19:10	UCIG	ELLE

Client Sample ID: 16B_040721

Lab Sample ID: 410-35284-28

Date Collected: 04/07/21 10:30

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 19:13	UCIG	ELLE

Client Sample ID: 17T_040721

Lab Sample ID: 410-35284-29

Date Collected: 04/07/21 10:31

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 19:16	UCIG	ELLE

Client Sample ID: 17B_040721

Lab Sample ID: 410-35284-30

Date Collected: 04/07/21 10:33

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 19:20	UCIG	ELLE

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: 18T_040721

Lab Sample ID: 410-35284-31

Date Collected: 04/07/21 10:35

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 19:23	UCIG	ELLE

Client Sample ID: 18B_040721

Lab Sample ID: 410-35284-32

Date Collected: 04/07/21 10:36

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 19:26	UCIG	ELLE

Client Sample ID: 19T_040721

Lab Sample ID: 410-35284-33

Date Collected: 04/07/21 10:49

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 18:34	UCIG	ELLE

Client Sample ID: 19B_040721

Lab Sample ID: 410-35284-34

Date Collected: 04/07/21 10:50

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 19:30	UCIG	ELLE

Client Sample ID: 20T_040721

Lab Sample ID: 410-35284-35

Date Collected: 04/07/21 10:53

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 19:33	UCIG	ELLE

Client Sample ID: 20B_040721

Lab Sample ID: 410-35284-36

Date Collected: 04/07/21 10:55

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 19:36	UCIG	ELLE

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: Cent T_040721

Lab Sample ID: 410-35284-37

Date Collected: 04/07/21 09:36

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114571	04/14/21 14:49	N3PD	ELLE
Dissolved	Analysis	6010C		1	115356	04/15/21 22:12	UCIG	ELLE

Client Sample ID: Cent B_040721

Lab Sample ID: 410-35284-38

Date Collected: 04/07/21 09:38

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 19:46	UCIG	ELLE

Client Sample ID: Lady T_040721

Lab Sample ID: 410-35284-39

Date Collected: 04/07/21 09:33

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 19:49	UCIG	ELLE

Client Sample ID: Lady B_040721

Lab Sample ID: 410-35284-40

Date Collected: 04/07/21 09:34

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 19:52	UCIG	ELLE

Client Sample ID: D1_040721

Lab Sample ID: 410-35284-41

Date Collected: 04/07/21 09:46

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 19:56	UCIG	ELLE

Client Sample ID: D2_040721

Lab Sample ID: 410-35284-42

Date Collected: 04/07/21 10:02

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114557	04/14/21 14:23	UJLA	ELLE
Dissolved	Analysis	6010C		1	115315	04/15/21 19:59	UCIG	ELLE

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Client Sample ID: D3_040721

Lab Sample ID: 410-35284-43

Date Collected: 04/07/21 10:24

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114548	04/14/21 14:16	N3PD	ELLE
Dissolved	Analysis	6010C		1	115260	04/15/21 16:34	UCIG	ELLE

Client Sample ID: D4_040721

Lab Sample ID: 410-35284-44

Date Collected: 04/07/21 10:53

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114548	04/14/21 14:16	N3PD	ELLE
Dissolved	Analysis	6010C		1	115260	04/15/21 16:37	UCIG	ELLE

Client Sample ID: FB_040721

Lab Sample ID: 410-35284-45

Date Collected: 04/07/21 10:46

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114548	04/14/21 14:16	N3PD	ELLE
Dissolved	Analysis	6010C		1	115260	04/15/21 16:47	UCIG	ELLE

Client Sample ID: RB1_040721

Lab Sample ID: 410-35284-46

Date Collected: 04/07/21 10:09

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114548	04/14/21 14:16	N3PD	ELLE
Dissolved	Analysis	6010C		1	115260	04/15/21 16:50	UCIG	ELLE

Client Sample ID: RB2_040721

Lab Sample ID: 410-35284-47

Date Collected: 04/07/21 10:48

Matrix: Water

Date Received: 04/08/21 17:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			114548	04/14/21 14:16	N3PD	ELLE
Dissolved	Analysis	6010C		1	115260	04/15/21 16:53	UCIG	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

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

Authority	Program	Identification Number	Expiration Date
Maryland	State	100	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010C	Non-Digest Prep	Water	Chromium



Method Summary

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300



Sample Summary

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-35284-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-35284-1	3T_040721	Water	04/07/21 09:40	04/08/21 17:19	
410-35284-2	3B_040721	Water	04/07/21 09:41	04/08/21 17:19	
410-35284-3	4T_040721	Water	04/07/21 09:44	04/08/21 17:19	
410-35284-4	4B_040721	Water	04/07/21 09:46	04/08/21 17:19	
410-35284-5	5T_040721	Water	04/07/21 09:47	04/08/21 17:19	
410-35284-6	5B_040721	Water	04/07/21 09:49	04/08/21 17:19	
410-35284-7	6T_040721	Water	04/07/21 09:50	04/08/21 17:19	
410-35284-8	6B_040721	Water	04/07/21 09:52	04/08/21 17:19	
410-35284-9	7T_040721	Water	04/07/21 09:53	04/08/21 17:19	
410-35284-10	7B_040721	Water	04/07/21 09:54	04/08/21 17:19	
410-35284-11	8T_040721	Water	04/07/21 09:56	04/08/21 17:19	
410-35284-12	8B_040721	Water	04/07/21 09:58	04/08/21 17:19	
410-35284-13	9T_040721	Water	04/07/21 09:59	04/08/21 17:19	
410-35284-14	9B_040721	Water	04/07/21 10:01	04/08/21 17:19	
410-35284-15	10T_040721	Water	04/07/21 10:02	04/08/21 17:19	
410-35284-16	10B_040721	Water	04/07/21 10:04	04/08/21 17:19	
410-35284-17	11T_040721	Water	04/07/21 10:11	04/08/21 17:19	
410-35284-18	11B_040721	Water	04/07/21 10:13	04/08/21 17:19	
410-35284-19	12T_040721	Water	04/07/21 10:16	04/08/21 17:19	
410-35284-20	12B_040721	Water	04/07/21 10:18	04/08/21 17:19	
410-35284-21	13T_040721	Water	04/07/21 10:19	04/08/21 17:19	
410-35284-22	13B_040721	Water	04/07/21 10:21	04/08/21 17:19	
410-35284-23	14T_040721	Water	04/07/21 10:23	04/08/21 17:19	
410-35284-24	14B_040721	Water	04/07/21 10:24	04/08/21 17:19	
410-35284-25	15T_040721	Water	04/07/21 10:25	04/08/21 17:19	
410-35284-26	15B_040721	Water	04/07/21 10:26	04/08/21 17:19	
410-35284-27	16T_040721	Water	04/07/21 10:28	04/08/21 17:19	
410-35284-28	16B_040721	Water	04/07/21 10:30	04/08/21 17:19	
410-35284-29	17T_040721	Water	04/07/21 10:31	04/08/21 17:19	
410-35284-30	17B_040721	Water	04/07/21 10:33	04/08/21 17:19	
410-35284-31	18T_040721	Water	04/07/21 10:35	04/08/21 17:19	
410-35284-32	18B_040721	Water	04/07/21 10:36	04/08/21 17:19	
410-35284-33	19T_040721	Water	04/07/21 10:49	04/08/21 17:19	
410-35284-34	19B_040721	Water	04/07/21 10:50	04/08/21 17:19	
410-35284-35	20T_040721	Water	04/07/21 10:53	04/08/21 17:19	
410-35284-36	20B_040721	Water	04/07/21 10:55	04/08/21 17:19	
410-35284-37	Cent T_040721	Water	04/07/21 09:36	04/08/21 17:19	
410-35284-38	Cent B_040721	Water	04/07/21 09:38	04/08/21 17:19	
410-35284-39	Lady T_040721	Water	04/07/21 09:33	04/08/21 17:19	
410-35284-40	Lady B_040721	Water	04/07/21 09:34	04/08/21 17:19	
410-35284-41	D1_040721	Water	04/07/21 09:46	04/08/21 17:19	
410-35284-42	D2_040721	Water	04/07/21 10:02	04/08/21 17:19	
410-35284-43	D3_040721	Water	04/07/21 10:24	04/08/21 17:19	
410-35284-44	D4_040721	Water	04/07/21 10:53	04/08/21 17:19	
410-35284-45	FB_040721	Water	04/07/21 10:46	04/08/21 17:19	
410-35284-46	RB1_040721	Water	04/07/21 10:09	04/08/21 17:19	
410-35284-47	RB2_040721	Water	04/07/21 10:48	04/08/21 17:19	



410-35284 Chain of Custody

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425 (717) 668-2300		Honeywell Chain Of Custody / Analysis Request										AESI Ref: 44280.31144		
Privileged & Confidential		N		Site Name: Baltimore Inner Harbor		Phase:		Location of Site: BALTIMORE, MD		Program		Lab Proj # (SDG):		
Sampling Co.: Maryland Environmental Service		EDD To: matthew.gillis@jacobs.com		Location of Site: BALTIMORE, MD		Phase:		Program		Lab ID: LLI		Lab ID: BALTIMORE		
Client Contact: (name, co., address) Maria Kaouns 115 Tabor Rd Morris Plains, NJ 07950		Sampler: AM, B.L., JM, JM		PO #: 4500013808		Analysis Turnaround Time (TAT): 7		Consultant: CH2M		Preservative: 3		Lab Job #		
Preliminary Data To: matthew.gillis@jacobs.com		Full Report TAT: 14		Composite/Grab		Field Filtered Sample ?		SW6010 Chromium		MSMSD		Authorized User: Honeywell		
Sample Receipt: matthew.gillis@jacobs.com		Hard Copy To: Amy Kopper		Invoice To: Maria Kaouns		Copyright AESI Version 3.9 Unauthorised use strictly prohibited.						Text & Excel File Drive		
Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	Sample Cont.	# of	Units	ppb	Sampling Method (code)	Lab Sample Numbers
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID											
1	3T	0.00	2.92	3T_040721	4/7/2021	940	W-SW	WATER	REG	4	grab	Y X	X	
2	3M			JM_040721	4/7/2021		W-SW	WATER	REG		grab			
3	3B	1.92	2.92	3B_040721	4/7/2021	941	W-SW	WATER	REG	1	grab	Y X		
4	4T	0.00	2.67	4T_040721	4/7/2021	944	W-SW	WATER	REG	1	grab	Y X		
5	4M			4M_040721	4/7/2021		W-SW	WATER	REG		grab			
6	4B	1.67	2.67	4B_040721	4/7/2021	946	W-SW	WATER	REG	1	grab	Y X		
7	5T	0.00	3.75	5T_040721	4/7/2021	947	W-SW	WATER	REG	1	grab	Y X		
8	5M			5M_040721	4/7/2021		W-SW	WATER	REG		grab			
9	5B	2.75	3.75	5B_040721	4/7/2021	949	W-SW	WATER	REG	1	grab	Y X		
10	6T	0.00	3.75	6T_040721	4/7/2021	950	W-SW	WATER	REG	1	grab	Y X		
11	6M			6M_040721	4/7/2021		W-SW	WATER	REG		grab			
12	6B	2.75	3.75	6B_040721	4/7/2021	952	W-SW	WATER	REG	1	grab	Y X		
Relinquished by: <i>[Signature]</i>		Company: HES		Received by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Date/Time: 4/17/21 1425		Condition: <i>[Signature]</i>		Custody Seals Intact		
Relinquished by: <i>[Signature]</i>		Company: MFS		Received by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Date/Time: 4/18/21 1200		Condition: <i>[Signature]</i>		Custody Seals Intact		
Preservatives: (Other, Specify):		(pH<2), 40% C, 11 (4C NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); 3p (special instructions)												


John 4/8/21 17:00
Cec 4-8-21 17:19

[Handwritten mark]


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Lancaster Laboratories		Honeywell Chain Of Custody / Analysis Request										AESI Ref: 44280.32010			
2425 New Holland Pike Lancaster, PA 17605-2425 (717) 666-2300												COC#: 30905-102620-3			
Privileged & Confidential		N		Site Name: Baltimore Inner Harbor		Phase:		Jurisdiction: Water Sampling		Lab Proj # (SDG):					
Sampling Co.: Maryland Environmental Service		EDD To: matthew.gillis@jacobs.com		Location of Site: BALTIMORE, MD		Program:				Lab ID: LI					
Client Contact: (name, co., address)		Sample: AM, BL, JM, JM								Site ID: BALTIMORE					
Maria Kaouns 115 Tabor Rd Morris Plains, NJ 07950		PO #: 4500013808		Analysis Turnaround Time (TAT): 7		Preservative: 3				Lab Job #:					
Preliminary Data To: matthew.gillis@jacobs.com		Consultant: CH2M								Authorized User: Honeywell					
Sample Receipt: matthew.gillis@jacobs.com		Full Report TAT: 14								Test & Excel File Drive					
Hard Copy To: Amy Klopfer										Excel & Test File Order					
Invoice To: Maria Kaouns										Copyright AESI Version 3.3 Unauthorized use strictly prohibited.					
Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	MSMSD	Sampling Method (code)	Lab Sample Numbers	
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID												
1	11T	0.00	3.00	11T_040721	4/7/2021	1011	W-SW	WATER	REG	4	grab	Y	X	X	
2	11M			11M_040721	4/7/2021		W-SW	WATER	REG		grab				
3	11B	2.00	3.00	11B_040721	4/7/2021	1013	W-SW	WATER	REG	1	grab	Y	X		
4	12T	0.00	2.75	12T_040721	4/7/2021	1016	W-SW	WATER	REG	1	grab	Y	X		
5	12M			12M_040721	4/7/2021		W-SW	WATER	REG		grab				
6	12B	1.75	2.75	12B_040721	4/7/2021	1018	W-SW	WATER	REG	1	grab	Y	X		
7	13T	0.00	3.08	13T_040721	4/7/2021	1019	W-SW	WATER	REG	1	grab	Y	X		
8	13M			13M_040721	4/7/2021		W-SW	WATER	REG		grab				
9	13B	2.08	3.08	13B_040721	4/7/2021	1021	W-SW	WATER	REG	1	grab	Y	X		
10	14T	0.00	3.58	14T_040721	4/7/2021	1023	W-SW	WATER	REG	1	grab	Y	X		
11	14M			14M_040721	4/7/2021		W-SW	WATER	REG		grab				
12	14B	2.58	3.58	14B_040721	4/7/2021	1024	W-SW	WATER	REG	1	grab	Y	X		
Relinquished by: <i>[Signature]</i>		Company: MES		Received by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Condition:		Custody Seals Intact:					
Date/Time: 4/7/21 14:25		Date/Time: 4/12/21 14:25		Date/Time: 4/12/21 14:25		Date/Time: 4/12/21 14:25		Cooler Temp.:		Cooler Temp.:					
Relinquished by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Received by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Condition:		Custody Seals Intact:					
Date/Time: 4/12/21 12:04		Date/Time: 4/12/21 12:00		Date/Time: 4/12/21 12:00		Date/Time: 4/12/21 12:00		Cooler Temp.:		Cooler Temp.:					
Preservatives: (Other, Specify)		(pH<2); 4(Deg C); 11 (4C NaOH (pH-12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)													

John 4/8/21 17:00

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425 (717) 656-2300		Honeywell Chain Of Custody / Analysis Request										AESI Ref: 44280.32343 COC# 30905-102620-4	
Privileged & Confidential		N		Site Name: Baltimore Inner Harbor		Phase: Sampling Program		Surface Water Sampling		Lab Proj # (SDG):		Lab ID: LLI	
Sampling Co.: Maryland Environmental Service		EDD To: matthew.gillis@jacobs.com		Location of Site: BALTIMORE, MD						Site ID: BALTIMORE		Lab Job #	
Client Contact: (name, co., address) Mana Kaouris 115 Tabor Rd Morris Plains, NJ 07950		Sampler: AM, B, JM, JM		Analysis Turnaround Time (TAT): 7		Preservative: 3				Authorized User: Honeywell		Text & Excel File Drive: Excel & Word file Order	
Preliminary Data To: matthew.gillis@jacobs.com		Consultant: CH2M		Full Report TAT: 14		Composite/Grab		Field Filtered Sample 7		SW6010 Chromium		Copyright AESI. Version 8.8. Unauthorized use strictly prohibited.	
Sample Receipt Acknowledgement To: amy.klopper@jacobs.com		Hard Copy To: Amy Klopper 2011 S.W. Wall Street Road Morris Plains, NJ 07950		Invoice To: Mana Kaouris									
Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Units	Sampling Method (code)	Lab Sample Numbers	
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID										
1	15T	0.00	1.50	15T_040721	4/7/2021	1025	W-SW	WATER	REG	1	grab	Y X	
2	15M	0.00	1.50	15M_040721	4/7/2021	1025	W-SW	WATER	REG	1	grab	Y X	
3	15B	0.50	1.50	15B_040721	4/7/2021	1026	W-SW	WATER	REG	1	grab	Y X	
4	16T	0.00	9.58	16T_040721	4/7/2021	1028	W-SW	WATER	REG	1	grab	Y X	
5	16M	0.00	9.58	16M_040721	4/7/2021	1028	W-SW	WATER	REG	1	grab	Y X	
6	16B	8.58	9.58	16B_040721	4/7/2021	1030	W-SW	WATER	REG	1	grab	Y X	
7	17T	0.00	3.00	17T_040721	4/7/2021	1031	W-SW	WATER	REG	1	grab	Y X	
8	17M	0.00	3.00	17M_040721	4/7/2021	1031	W-SW	WATER	REG	1	grab	Y X	
9	17B	2.00	3.00	17B_040721	4/7/2021	1033	W-SW	WATER	REG	1	grab	Y X	
10	18T	0.00	9.75	18T_040721	4/7/2021	1035	W-SW	WATER	REG	1	grab	Y X	
11	18M	0.00	9.75	18M_040721	4/7/2021	1035	W-SW	WATER	REG	1	grab	Y X	
12	18B	8.75	9.75	18B_040721	4/7/2021	1036	W-SW	WATER	REG	1	grab	Y X	
Relinquished by: <i>[Signature]</i>		Company: HES		Received by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Condition:		Custody Seals Intact			
Date/Time: 4/7/21 1425		Date/Time: 4/8/21 1204		Date/Time: 4/8/21 1200		Date/Time: 4/8/21 1425		Cooler Temp.:		Cooler Temp.:			
Relinquished by: <i>[Signature]</i>		Company: HES		Received by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Condition:		Custody Seals Intact			
Date/Time: 4/8/21 1204		Date/Time: 4/8/21 1200		Date/Time: 4/8/21 1200		Date/Time: 4/8/21 1200		Cooler Temp.:		Cooler Temp.:			
Preservatives: (Other; Specify):		0 (none); 1 (4 Deg C); 2 (HCl pH<2); 3 (HNO3 pH<2); 4 (H2SO4 pH<2); 5 (NaOH pH>12); 6 (NaOH; Zn Acetate); 7 (H2SO4 (pH<2), 4 Deg C); 8 (HCl pH<2); 9 (HCl 4 Deg C); 10 (HNO3 (pH<2), 4Deg C); 11 (4C NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)											

John 4/8/21 17:00
Chris 4/8/21 17:19

Lancaster Laboratories		Honeywell Chain Of Custody / Analysis Request										AESI Ref: 44280.33376	
2425 New Holland Pike Lancaster, PA 17805-2425 (717) 656-2300		Privileged & Confidential		N		Site Name: Baltimore Inner Harbor		Phase:		Surface Water Sampling		Lab Proj # (SDG):	
Sampling Co.: Maryland Environmental Service		EDD To: matthew.gillis@jacobs.com		Location of Site: BALTIMORE, MD		Program:				Lab ID: LLI		COC#: 30905410262025	
Client Contact: (name, co., address) Maria Kaouns 115 Tabor Rd Morris Plains, NJ 07950		Sampler: MM, BL, JM, JM		PO #: 4500013806		Preservative: 3				Lab Job #		Authorized User: Honeywell	
Preliminary Data To		Analysis Turnaround Time (TAT): 7		Consultant: CH2M		Composite/Grab		Field Filtered Sample ?		SW610 Chromium		MSMSD	
Sample Receipt		Full Report TAT: 14										Copyright AESI: Version 3.2 Unauthorised use strictly prohibited.	
Hard Copy To: Honeywell, 1000 Wills Street, Baltimore, MD 21231		Invoice To: Maria Kaouns											
Sample Identification					Sample Data	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Units	Sampling Method (code)	Lab Sample Numbers
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID										
1	19T	0.00	6.50	19T_040721	4/7/2021	1049	W-SW	WATER	REG	4	grab Y X	X	
2	19M			19M_040721	4/7/2021		W-SW	WATER	REG	grab			
3	19B	5.50	6.50	19B_040721	4/7/2021	1050	W-SW	WATER	REG	1	grab Y X		
4	20T	0.00	7.50	20T_040721	4/7/2021	1053	W-SW	WATER	REG	1	grab Y X		
5	20M			20M_040721	4/7/2021		W-SW	WATER	REG	grab			
6	20B	1.50	2.50	20B_040721	4/7/2021	1055	W-SW	WATER	REG	1	grab Y X		
7	Cent T	0.00	7.92	Cent T_040721	4/7/2021	936	W-SW	WATER	REG	1	grab Y X		
8	Cent M			Cent M_040721	4/7/2021		W-SW	WATER	REG	grab			
9	Cent B	6.92	7.92	Cent B_040721	4/7/2021	938	W-SW	WATER	REG	1	grab Y X		
10	LADY T	0.00	1.83	Lady T_040721	4/7/2021	933	W-SW	WATER	REG	1	grab Y X		
11	Lady M			Lady M_040721	4/7/2021		W-SW	WATER	REG	grab			
12	LADY B	0.83	1.83	Lady B_040721	4/7/2021	934	W-SW	WATER	REG	1	grab Y X		
Relinquished by: <i>[Signature]</i>		Company: MEF		Received by: <i>[Signature]</i>		Company: Jacobs		Condition:		Custody Seals Intact			
Date/Time: 4/7/21 1425		Date/Time: 4/7/21 1204		Date/Time: 4/7/21 1204		Date/Time: 4/7/21 1204		Cooler Temp.:		Cooler Temp.:			
Relinquished by: <i>[Signature]</i>		Company: MEF		Received by: <i>[Signature]</i>		Company: Jacobs		Condition:		Custody Seals Intact			
Date/Time: 4/8/21 1204		Date/Time: 4/8/21 1204		Date/Time: 4/8/21 1204		Date/Time: 4/8/21 1204		Cooler Temp.:		Cooler Temp.:			
Preservatives: (Other; Specify): (pH<2), 4Deg C); 11 (4C NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)													

John
4/8/21 17:00
4-8-21 17:01

Lancaster Laboratories 2424 New Holland Pike Lancaster, PA 17605-2425 (717) 656-2300		Honeywell Chain Of Custody / Analysis Request										AESI Ref: 44280.36388			
Privileged & Confidential		N		Site Name: Baltimore Inner Harbor		Phase:		Lab Proj # (SDG):		COC# 30905-102420-6					
Sampling Co.: Maryland Environmental Service		EDD To: matthew.gills@jacobs.com		Location of Site: BALTIMORE, MD		Program:		Lab ID:		Site ID: BALTIMORE					
Client Contact: (name, co., address)		Sampler: AM, B, JM, JM		PO # 4500013806		Preservative: 3		Lab Job #:		Authorized User: Honeywell					
115 Tabor Rd Morris Plains, NJ 07950		Analysis Turnaround Time (TAT): 7 Consultant: CH2M		Full Report TAT: 14		Composite/Grab		Field Filtered Sample ?		Test & Excel File Drive					
Sample ID: RB1		Sample ID: RB2		Sample ID: RB3		Sample ID: RB4		Sample ID: RB5		Sample ID: RB6					
Hard Copy To: Amy Klopfer		Invoice To: Maria Kaouris		Sample Date		Sample Time		Sample Type		Sample Matrix					
Sample Purpose		# of Cont.		Units		µg/L		Sampling Method (code)		Lab Sample Numbers					
1	4B	1.67	2.67	D1_040721	4/7/2021	946	W-SW	WATER	FD	1	grab	Y	X		
2	10T	0.00	3.01	D2_040721	4/7/2021	1002	W-SW	WATER	FD	1	grab	Y	X		
3	14B	2.58	3.58	D3_040721	4/7/2021	1024	W-SW	WATER	FD	1	grab	Y	X		
4	20T	0.00	2.52	D4_040721	4/7/2021	1053	W-SW	WATER	FD	1	grab	Y	X		
5	FIELDQC	-	-	FB_040721	4/7/2021	1046	BLKWATER	WATER	FB	1	grab	Y	X		
6	FIELDQC	-	-	RB1_040721	4/7/2021	1009	BLKWATER	WATER	EB	1	grab	Y	X		
7	FIELDQC	-	-	RB2_040721	4/7/2021	1048	BLKWATER	WATER	EB	1	grab	Y	X		
8	FIELDQC	-	-	RB3_040721	4/7/2021		BLKWATER	WATER	EB	1	grab	Y	X		
9															
10															
11															
12															
Relinquished by: [Signature]		Company: M&S		Received by: [Signature]		Company: Jacobs		Condition:		Custody Seals Intact					
Date/Time: 4/17/21 1425		Date/Time: 4/17/21 1425		Date/Time: 4/17/21 1425		Date/Time: 4/17/21 1425		Cooler Temp.:		Custody Seals Intact					
Relinquished by: [Signature]		Company: M&S		Received by: [Signature]		Company: Jacobs		Condition:		Custody Seals Intact					
Date/Time: 4/18/21 1204		Date/Time: 4/18/21 1204		Date/Time: 4/18/21 1204		Date/Time: 4/18/21 1204		Cooler Temp.:		Custody Seals Intact					
Preservatives: (Other, Specify):		[pH<2], 4Deg C], 11 (4C NaOH (pH<12) & Ascorbic Acid), 12 (4C H2SO4 (pH<2) & Na2S2O3), 13 (Zn Acetate), sp (special instructions)]													

Jalk 9/8/21 17:00
Coo 4-8-21 1719

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 410-35284-1

Login Number: 35284
List Number: 1
Creator: Rivera, Tatiana

List Source: Eurofins Lancaster Laboratories Env

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
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 ($\leq 6C$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6C$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
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	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

Appendix A-2
Chain-of-Custody Records—April 2021








410-35284 Chain of Custody

Lancaster Laboratories										Honeywell Chain Of Custody / Analysis Request										AESI Ref: 44280.31144	
2425 New Holland Pike Lancaster, PA 17605-2425 (717) 668-2300										Privileged & Confidential		N		Site Name: Baltimore Inner Harbor		Phase:		Lab Proj # (SDG):		COC#: 30905-102620-1	
Sampling Co.: Maryland Environmental Service					EDD To: matthew.gillis@jacobs.com					Location of Site: BALTIMORE, MD					Program		Lab ID: LI				
Client Contact: (name, co., address) Maria Kaouris 115 Tabor Rd Morris Plains, NJ 07950					Sampler: AM, B, L, JM, JM PO #: 4500013808					Preservative: 3					Lab Job #		Site ID: BALTIMORE				
Preliminary Data To: matthew.gillis@jacobs.com					Analysis Turnaround Time (TAT): 7					Composite/Grab					Authorized User: Honeywell		Copyright AESI Version 3.9 Unauthorised use strictly prohibited.				
Sample Receipt: matthew.gillis@jacobs.com					Consultant: CH2M					Field Filtered Sample ?					MSMSD		Text & Excel File Only				
Hard Copy To: Amy Kopper					Full Report TAT: 14					SW6010 Chromium											
Invoice To: Maria Kaouris																					
Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Units	ppb		Sampling Method (code)	Lab Sample Numbers							
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID																		
1	3T	0.00	2.92	3T_040721	4/7/2021	940	W-SW	WATER	REG	4	grab	Y X	X								
2	3M			3M_040721	4/7/2021		W-SW	WATER	REG		grab										
3	3B	1.92	2.92	3B_040721	4/7/2021	941	W-SW	WATER	REG	1	grab	Y X									
4	4T	0.00	2.67	4T_040721	4/7/2021	944	W-SW	WATER	REG	1	grab	Y X									
5	4M			4M_040721	4/7/2021		W-SW	WATER	REG		grab										
6	4B	1.67	2.67	4B_040721	4/7/2021	946	W-SW	WATER	REG	1	grab	Y X									
7	5T	0.00	3.75	5T_040721	4/7/2021	947	W-SW	WATER	REG	1	grab	Y X									
8	5M			5M_040721	4/7/2021		W-SW	WATER	REG		grab										
9	5B	2.75	3.75	5B_040721	4/7/2021	949	W-SW	WATER	REG	1	grab	Y X									
10	6T	0.00	3.75	6T_040721	4/7/2021	950	W-SW	WATER	REG	1	grab	Y X									
11	6M			6M_040721	4/7/2021		W-SW	WATER	REG		grab										
12	6B	2.75	3.75	6B_040721	4/7/2021	952	W-SW	WATER	REG	1	grab	Y X									
Relinquished by: <i>[Signature]</i>				Company: HES				Received by: <i>[Signature]</i>				Date/Time: 4/17/21 1425		Condition: <i>[Signature]</i>		Custody Seals Intact					
Relinquished by: <i>[Signature]</i>				Company: MFS				Received by: <i>[Signature]</i>				Date/Time: 4/18/21 1200		Condition: <i>[Signature]</i>		Custody Seals Intact					
Preservatives: (Other, Specify): (pH<2), 40% Cr, 11 (4C NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)																					


John 4/8/21 17:00
Cec 4-8-21 17:19

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Lancaster Laboratories		Honeywell Chain Of Custody / Analysis Request										AESI Ref: 44280.31869	
2425 New Holland Pike Lancaster, PA 17608-2425 (717) 656-2300		Privileged & Confidential		N		Site Name: Baltimore BH		Phase:		Lab Proj # (SDG):		COC#: 30905-102620-2	
Sampling Co.: Maryland Environmental Service		EDD To: matthew.gillie@jacobs.com		Location of Site: BALTIMORE, MD		Program		Date of Water Collection		Lab ID: LLJ		Site ID: BALTIMORE	
Client Contact: (name, co., address) Maria Kaouris 115 Tabor Rd Morris Plains, NJ 07950		Sampler: AM, BL, JM, JM		PO #: 4500013808		Preservative: 3		Analysis Turnaround Time (TAT): 7		Consultant: CH2M		Lab Job #: Honeywell	
Preliminary Data To: http://www.honeywell.com/CityLab/Default.aspx		Full Report TAT: 14		Composite/Grab		Field Filtered Sample ?		SW6010 Chromium		Test & Excel File Drive		Excel & Test File Order	
Sample Receipt		Hard Copy To: Amy Klopper		Invoice To: Maria Kaouris		Copyright AESI Version 9.9 Unauthorized use strictly prohibited.				Sampling Method (code)		Lab Sample Numbers	
Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Units	ug/L		
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID										
1	7T	0.00	3.33	7T_040721	4/7/2021	953	W-SW	WATER	REG	1	grab	Y	X
2	7M	0.00	3.33	7M_040721	4/7/2021	954	W-SW	WATER	REG	1	grab	Y	X
3	7B	2.33	3.33	7B_040721	4/7/2021	954	W-SW	WATER	REG	1	grab	Y	X
4	8T	0.00	3.50	8T_040721	4/7/2021	956	W-SW	WATER	REG	1	grab	Y	X
5	8M	0.00	3.50	8M_040721	4/7/2021	956	W-SW	WATER	REG	1	grab	Y	X
6	8B	2.50	3.50	8B_040721	4/7/2021	958	W-SW	WATER	REG	1	grab	Y	X
7	9T	0.00	2.75	9T_040721	4/7/2021	959	W-SW	WATER	REG	1	grab	Y	X
8	9M	0.00	2.75	9M_040721	4/7/2021	959	W-SW	WATER	REG	1	grab	Y	X
9	9B	1.75	2.75	9B_040721	4/7/2021	1001	W-SW	WATER	REG	1	grab	Y	X
10	10T	0.00	3.01	10T_040721	4/7/2021	1002	W-SW	WATER	REG	1	grab	Y	X
11	10M	0.00	3.01	10M_040721	4/7/2021	1002	W-SW	WATER	REG	1	grab	Y	X
12	10B	2.01	3.01	10B_040721	4/7/2021	1004	W-SW	WATER	REG	1	grab	Y	X
Relinquished by: 		Company: MEC		Received by: 		Company: Jacobs		Condition:		Custody Seals Intact			
Date/Time: 4/17/21 1425		Date/Time: 4/17/21 1425		Date/Time: 4/17/21 1425		Date/Time: 4/17/21 1425		Cooler Temp.:		Cooler Temp.:			
Relinquished by: 		Company: MEC		Received by: 		Company: Jacobs		Condition:		Custody Seals Intact			
Date/Time: 4/18/21 1200		Date/Time: 4/18/21 1200		Date/Time: 4/18/21 1200		Date/Time: 4/18/21 1200		Cooler Temp.:		Cooler Temp.:			
Preservatives: (Other; Specify)													

John 4/8/21 17:00
 Cor 4-8-21 1719

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Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425 (717) 666-2300		Honeywell Chain Of Custody / Analysis Request										AESI Ref: 44280.32010 COC#: 30905-102620-3	
Privileged & Confidential		N		Site Name: Baltimore Inner Harbor		Phase:		Location of Site: BALTIMORE, MD		Program		Lab Proj # (SDG):	
Sampling Co.: Maryland Environmental Service		EDD To: matthew.gillis@jacobs.com		Location of Site: BALTIMORE, MD		Program		Jurisdiction: Water Sampling		Lab ID: LI		Site ID: BALTIMORE	
Client Contact: (name, co., address) Maria Kaouns 115 Tabor Rd Morris Plains, NJ 07950		Sample: AM, BL, JM, JM		PO #: 4500013808		Preservative: 3		Analysis Turnaround Time (TAT): 7		Consultant: CH2M		Lab Job #	
Preliminary Data To		Full Report TAT: 14		Composite/Grab		Field Filtered Sample ?		SW6010 Chromium		MS/MSD		Authorized User: Honeywell	
Sample Receipt		Hard Copy To: Amy Klopper		Invoice To: Maria Kaouns		Tax & Eval File Code		Est & Test File Order		Copyright AESI Version 3.3 Unauthorised use strictly prohibited.			
Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Units	Sampling Method (code)		Lab Sample Numbers
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID										
1	11T	0.00	3.00	11T_040721	4/7/2021	1011	W-SW	WATER	REG	4	grab	Y	X
2	11M			11M_040721	4/7/2021		W-SW	WATER	REG		grab		
3	11B	2.00	3.00	11B_040721	4/7/2021	1013	W-SW	WATER	REG	1	grab	Y	X
4	12T	0.00	2.75	12T_040721	4/7/2021	1016	W-SW	WATER	REG	1	grab	Y	X
5	12M			12M_040721	4/7/2021		W-SW	WATER	REG		grab		
6	12B	1.75	2.75	12B_040721	4/7/2021	1018	W-SW	WATER	REG	1	grab	Y	X
7	13T	0.00	3.08	13T_040721	4/7/2021	1019	W-SW	WATER	REG	1	grab	Y	X
8	13M			13M_040721	4/7/2021		W-SW	WATER	REG		grab		
9	13B	2.08	3.08	13B_040721	4/7/2021	1021	W-SW	WATER	REG	1	grab	Y	X
10	14T	0.00	3.58	14T_040721	4/7/2021	1023	W-SW	WATER	REG	1	grab	Y	X
11	14M			14M_040721	4/7/2021		W-SW	WATER	REG		grab		
12	14B	2.58	3.58	14B_040721	4/7/2021	1024	W-SW	WATER	REG	1	grab	Y	X
Relinquished by: <i>[Signature]</i>		Company: MES		Received by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Condition:		Custody Seals Intact:			
Date/Time: 4/7/21 14:25		Date/Time: 4/12/21 14:25		Date/Time: 4/12/21 14:25		Date/Time: 4/12/21 14:25		Cooler Temp.:		Cooler Temp.:			
Relinquished by: <i>[Signature]</i>		Company: MES		Received by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Condition:		Custody Seals Intact:			
Date/Time: 4/12/21 12:04		Date/Time: 4/12/21 12:04		Date/Time: 4/12/21 12:04		Date/Time: 4/12/21 12:04		Cooler Temp.:		Cooler Temp.:			
Preservatives: (Other, Specify)		(pH<2); 4Deg C); 11 (4C NaOH (pH-12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)											

John 4/8/21 17:00

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425 (717) 656-2300		Honeywell Chain Of Custody / Analysis Request										AESI Ref: 44280.32343 COC#: 30305-102620-4	
Privileged & Confidential		N		Site Name: Baltimore Inner Harbor			Phase: Sampling Program		Surface Water Sampling			Lab Proj # (SDG):	
Sampling Co.: Maryland Environmental Service		EDD To: matthew.gillis@jacobs.com		Location of Site: BALTIMORE, MD								Lab ID: LLJ	
Client Contact: (name, co., address) Mana Kaouris 115 Tabor Rd Morris Plains, NJ 07950		Sampler: AM, B, JM, JM		Analysis Turnaround Time (TAT): 7			Preservative: 3					Site ID: BALTIMORE	
Preliminary Data To: matthew.gillis@jacobs.com		Consultant: CH2M		Full Report TAT: 14			Composite/Grab		Field Filtered Sample 7			Authorized User: Honeywell	
Sample Receipt Acknowledgement To: Mana Kaouris							SW6010 Chromium					Text & Excel File Drive Excel & Text File Order	
Hard Copy To: Amy Klopper 2044 S.W. Williams Road Morris Plains, NJ 07950												Copyright AESI. Version 8.0. Unauthorized use strictly prohibited.	
Invoice To: Mana Kaouris													
Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Units	Sampling Method (code)	Lab Sample Numbers	
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID										
1	15T	0.00	1.50	15T_040721	4/7/2021	1025	W-SW	WATER	REG	1	grab	Y X	
2	15M	0.00	1.50	15M_040721	4/7/2021	1025	W-SW	WATER	REG	1	grab	Y X	
3	15B	0.50	1.50	15B_040721	4/7/2021	1026	W-SW	WATER	REG	1	grab	Y X	
4	16T	0.00	9.58	16T_040721	4/7/2021	1028	W-SW	WATER	REG	1	grab	Y X	
5	16M	0.00	9.58	16M_040721	4/7/2021	1028	W-SW	WATER	REG	1	grab	Y X	
6	16B	8.58	9.58	16B_040721	4/7/2021	1030	W-SW	WATER	REG	1	grab	Y X	
7	17T	0.00	3.00	17T_040721	4/7/2021	1031	W-SW	WATER	REG	1	grab	Y X	
8	17M	0.00	3.00	17M_040721	4/7/2021	1031	W-SW	WATER	REG	1	grab	Y X	
9	17B	2.00	3.00	17B_040721	4/7/2021	1033	W-SW	WATER	REG	1	grab	Y X	
10	18T	0.00	9.75	18T_040721	4/7/2021	1035	W-SW	WATER	REG	1	grab	Y X	
11	18M	0.00	9.75	18M_040721	4/7/2021	1035	W-SW	WATER	REG	1	grab	Y X	
12	18B	8.75	9.75	18B_040721	4/7/2021	1036	W-SW	WATER	REG	1	grab	Y X	
Relinquished by: <i>[Signature]</i>		Company: HES		Received by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Condition:		Custody Seals Intact			
Date/Time: 4/7/21 1425		Date/Time: 4/8/21 1204		Date/Time: 4/8/21 1200		Date/Time: 4/8/21 1200		Cooler Temp.:		Custody Seals Intact			
Relinquished by: <i>[Signature]</i>		Company: HES		Received by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Condition:		Custody Seals Intact			
Date/Time: 4/8/21 1204		Date/Time: 4/8/21 1200		Date/Time: 4/8/21 1200		Date/Time: 4/8/21 1200		Cooler Temp.:		Custody Seals Intact			
Preservatives: (Other; Specify):		0 (none); 1 (4 Deg C); 2 (HCl pH<2); 3 (HNO3 pH<2); 4 (H2SO4 pH<2); 5 (NaOH pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4 (pH<2), 4 Deg C); 8 (HCl pH<2); 9 (HCl 4 Deg C); 10 (HNO3 pH<2, 4Deg C); 11 (4C NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)											

John 4/8/21 17:00
Chris 4/8/21 17:19

Lancaster Laboratories		Honeywell Chain Of Custody / Analysis Request										AESI Ref: 44280.33376	
2425 New Holland Pike Lancaster, PA 17605-2425 (717) 656-2300		Privileged & Confidential		N		Site Name: Baltimore Inner Harbor		Phase:		Surface Water Sampling		COC#: 30905-112620-3	
Sampling Co.: Maryland Environmental Service		EDD To: matthew.gillis@jacobs.com		Location of Site: BALTIMORE, MD		Program:		Lab Proj # (SDG):		Lab ID: LLI		Site ID: BALTIMORE	
Client Contact: (name, co., address) Maria Kaouns 115 Tabor Rd Morris Plains, NJ 07950		Sampler: MM, BL, JM, JM		PO #: 4500013806		Preservative: 3		Lab Job #:		Authorized User: Honeywell		Lab ID: LLI	
Preliminary Data To		Analysis Turnaround Time (TAT): 7		Consultant: CH2M		Composite/Grab		Field Filtered Sample ?		SW610 Chromium		MSMSD	
Sample Receipt		Full Report TAT: 14										Copyright AESI: Version 3.2 Unauthorized use strictly prohibited.	
Hard Copy To: Honeywell, 1000 Wills Street, Baltimore, MD 21231		Invoice To: Maria Kaouns										Text & Email File Only Print & Test File Only	
Sample Identification				Sample Data	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Units	Sampling Method (code)	Lab Sample Numbers	
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID										
1	19T	0.00	6.50	19T_040721	4/7/2021	1049	W-SW	WATER	REG	4	grab	Y	X
2	19M			19M_040721	4/7/2021		W-SW	WATER	REG	grab			
3	19B	5.50	6.50	19B_040721	4/7/2021	1050	W-SW	WATER	REG	1	grab	Y	X
4	20T	0.00	7.50	20T_040721	4/7/2021	1053	W-SW	WATER	REG	1	grab	Y	X
5	20M			20M_040721	4/7/2021		W-SW	WATER	REG	grab			
6	20B	1.50	2.50	20B_040721	4/7/2021	1055	W-SW	WATER	REG	1	grab	Y	X
7	Cent T	0.00	7.92	Cent T_040721	4/7/2021	936	W-SW	WATER	REG	1	grab	Y	X
8	Cent M			Cent M_040721	4/7/2021		W-SW	WATER	REG	grab			
9	Cent B	6.92	7.92	Cent B_040721	4/7/2021	938	W-SW	WATER	REG	1	grab	Y	X
10	LADY T	0.00	1.83	Lady T_040721	4/7/2021	933	W-SW	WATER	REG	1	grab	Y	X
11	Lady M			Lady M_040721	4/7/2021		W-SW	WATER	REG	grab			
12	LADY B	0.83	1.83	Lady B_040721	4/7/2021	934	W-SW	WATER	REG	1	grab	Y	X
Relinquished by: <i>[Signature]</i>		Company: MEF		Received by: <i>[Signature]</i>		Company: Jacobs		Condition:		Custody Seals Intact			
		Date/Time: 4/7/21 1425				Date/Time: 4/7/21 1425		Cooler Temp.:					
Relinquished by: <i>[Signature]</i>		Company: MES		Received by: <i>[Signature]</i>		Company:		Condition:		Custody Seals Intact			
		Date/Time: 4/8/21 1204				Date/Time: 4/8/21 12:00		Cooler Temp.:					
Preservatives: (Other; Specify):		(pH<2), 4Deg C); 11 (4C NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)											

John
4/8/21 17:00
4-8-21 17:01

Lancaster Laboratories 2424 New Holland Pike Lancaster, PA 17605-2425 (717) 658-2300		Honeywell Chain Of Custody / Analysis Request										AESI Ref: 44280.36388			
Privileged & Confidential		N		Site Name: Baltimore Inner Harbor		Phase:		Lab Proj # (SDG):		COC# 50905-102420-36		Lab Proj # (SDG):			
Sampling Co.: Maryland Environmental Service		EDD To: matthew.gills@jacobs.com		Location of Site: BALTIMORE, MD		Program:		Lab ID:		Site ID:		Lab Job #:			
Client Contact: (name, co., address)		Sampler: AM, B, JM, JM		PO # 4500013806		Preservative:		3		Authorized User: Honeywell		Test & Ext'd File Order			
115 Tabor Rd Morris Plains, NJ 07950		Analysis Turnaround Time (TAT): 7		Consultant: CH2M		Full Report TAT: 14						Copyright AESI: Version 8.0. Unauthorized use strictly prohibited.			
Sample Identification		Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	Sample Cont.	# of	Composite/Grab	Field Filtered Sample	8W6010 Chromium	Units	ug/L	Sampling Method (code)	Lab Sample Numbers
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID												
1	4B	1.67	2.67	D1_040721	4/7/2021	946	W-SW	WATER	FD	1	grab	Y	X		
2	10T	0.00	3.01	D2_040721	4/7/2021	1002	W-SW	WATER	FD	1	grab	Y	X		
3	14B	2.58	3.58	D3_040721	4/7/2021	1024	W-SW	WATER	FD	1	grab	Y	X		
4	20T	0.00	2.52	D4_040721	4/7/2021	1053	W-SW	WATER	FD	1	grab	Y	X		
5	FIELDQC	-	-	FB_040721	4/7/2021	1046	BLKWATER	WATER	FB	1	grab	Y	X		
6	FIELDQC	-	-	RB1_040721	4/7/2021	1009	BLKWATER	WATER	EB	1	grab	Y	X		
7	FIELDQC	-	-	RB2_040721	4/7/2021	1048	BLKWATER	WATER	EB	1	grab	Y	X		
8	FIELDQC	-	-	RB3_040721	4/7/2021		BLKWATER	WATER	EB	1	grab	Y	X		
9															
10															
11															
12															
Relinquished by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Received by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Condition:		Custody Seals Intact					
Date/Time: 4/17/21 1425		Date/Time: 4/17/21 1425		Date/Time: 4/17/21 1425		Date/Time: 4/17/21 1425		Cooler Temp.:		Custody Seals Intact					
Relinquished by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Received by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Condition:		Custody Seals Intact					
Date/Time: 4/18/21 1204		Date/Time: 4/18/21 1204		Date/Time: 4/18/21 1204		Date/Time: 4/18/21 1204		Cooler Temp.:		Custody Seals Intact					
Preservatives: (Other, Specify):		[pH<2], 4Deg C], 11 (4C NaOH (pH<12) & Ascorbic Acid), 12 (4C H2SO4 (pH<2) & Na2S2O3), 13 (Zn Acetate), sp (special instructions)													

Jalk 9/8/21 17:00
CC 4-8-21 1719

Appendix A-3
Field Report—April 2021

BALTIMORE INNER HARBOR SURFACE WATER SAMPLING

April 7, 2021



METER CALIBRATION LOG

BIH CALIBRATION LOG

DATE	TIME	METER	BUFFER	SAMPLING EVENT	INITIALS
7/11/18	800	HORIBA 3	AUTO CAL	SEDIMENT SAMPLING	LV
8/6/18	800	HORIBA 3	AUTO CAL	SURFACE WATER	AH
10/3/18	#6 525	HORIBA 2	AUTO CAL	GROUNDWATER	AH
11/19/18	755	HORIBA 3	AUTO CAL	SURFACE WATER	LV/CIT
3/4/19	945	HORIBA 3	AUTO CAL	SURFACE WATER	LV
4/10/19	0530	HORIBA 1	AUTO CAL	GROUNDWATER	BL
4/17/19	930	HORIBA 3	AUTO CAL	Drainage Layer	BRK/LV
5/14/19	830	HORIBA 3	AUTO CAL	SURFACE WATER	CH
8/20/19	915	HORIBA 3	AUTO CAL	surface water	CO
10/21/19	545	HORIBA 1	AUTO CAL	GROUNDWATER	CO
10/23/19	815	HORIBA 3	AUTO CAL	surface water	CO
3/5/20	648	HORIBA 3	AUTO CAL	Surface Water	AM
5/19/20	700	HORIBA 3	AUTO CAL	GROUNDWATER	AB
6/1/20	850	HORIBA 3	AUTO CAL	Surface Water	AB
6/2/20	917	HORIBA 3	AUTO CAL	Drainage Layer	AB
9/11/20	0840	HORIBA 3	AUTO CAL	Surface Water	BL
10/6/20	0920 0645	HORIBA 3	AUTO CAL	GROUNDWATER	BL
11/13/20	0850	HORIBA 3	AUTO CAL	Surface Water	BL
2/24/21	0900	HORIBA 3	AUTO CAL	Surface Water	CO
4/7/21	0850	HORIBA 3	AUTO CAL	Surface Water	BL

FIELD NOTES

BIH Surface Water Sampling

4/7/21

Samplers: AM, JM, BL
Boat Captain: JM

Weather Conditions: 57°F Sunny

Low Tide: 10:23am

Sampling Window: 9:23am - 11:23am

Sample ID	Depth to Bottom (ft)	Sample Depth	Time (hrs)	pH (units)	Temp (°C)	Sp. cond. (ms/cm)	Initials
Lady T	1' 10"	0'	933	6.22	11.81	4.69	AM
Lady B	1' 10"	10'	934	6.45	14.08	8.83	AM
Cent T	7' 11"	0'	936	6.85	14.86	4.08	AM
Cent B	7' 11"	6' 11"	938	6.78	12.77	12.50	AM
3 T	2' 11"	0'	940	7.14	13.25	4.65	AM
3 B	2' 11"	1' 11"	941	7.10	13.43	8.74	AM
4 T	2' 8"	0'	944	7.16	13.82	8.94	AM
4 B Dup	2' 8"	1' 8"	946	7.24	13.42	7.99	AM
5 T	3' 9"	0'	947	7.43	13.08	6.21	AM
5 B AM	3' 9"	2' 9"	949	7.40	13.46	8.14	AM
6 T	3' 3"	0'	950	7.50	13.30	6.34	AM
6 B	3' 3"	2' 3"	952	7.52	13.37	7.35	AM
7 T	3' 4"	0'	953	7.55	13.30	7.42	AM
7 B	3' 4"	2' 4"	954	7.53	13.39	8.34	AM

BH Surface Water Sampling

4/7/21

Sample ID	Depth to bottom	Sample Depth	Time (HRS)	pH (units)	Temp (°C)	Sp. cond (mS/cm)	Initials
8T	3' 6"	0'	956	7.64	13.62	6.49	AM
8B	3' 6"	2' 6"	958	7.62	13.61	8.04	AM
9T	2' 9"	0'	959	7.69 7.69	13.49	7.14	AM
9B	2' 9"	1' 9"	1001	7.70	13.57	7.64	AM
10T ^{Deep}	3' 1"	0'	1002	7.81	13.43	5.80	AM
10B	3' 1"	2' 1"	1004	7.74	13.36	8.59 8.59	AM
RB	—	—	1009	9.11	15.27	0.0013	AM
11T*	3' 0"	0	1011	7.04	14.46	5.51	AM
11B	3' 0"	2' 0"	1013	7.27	14.03	8.19	AM
12T	2' 9"	0'	1016	7.59	13.99	6.02	AM
12B	2' 9"	1' 9"	1018	7.57	13.61	8.54	AM
13T	3' 1"	0'	1019	7.68	13.99	6.78	AM
13B	3' ^{AM} 1"	2' 1"	1021	7.71	13.48	8.34	AM
14T	3' 7"	0'	1023	7.75	13.44	7.60	AM
14B ^{Deep}	3' 7"	3' ^{AM} 2' 7"	1024	7.72	13.13	9.43	AM
15T	1' 6"	0'	1025	7.72	13.13	8.47	AM
15B	1' 6"	6"	1026	7.67	13.03	9.04	AM
16T	9' 7"	0'	1028	7.76	13.44	9.21	AM
16B	9' 7"	8' 7"	1030	7.69	12.87	11.7	AM

BIM Surface Water Sampling

4/7/21

Sample ID	Depth to Bottom	Sample Depth	Time (MSS)	pH (units)	Temp (C)	Sp cond (ns/cm)	Initials
17T	3' 0"	0'	1031	7.77	13.58	9.20	AM
17B	3' 0"	2' 0"	1033	7.78	13.42	9.35	AM
18T	9' 9"	0'	1035	7.83	13.75	9.02	AM
18B	9' 9"	8' 9"	1036	7.71	13.07	11.7	AM
AM 19A RB	—	—	1048	8.85	16.81	0.001	AM
AM 19B FB	—	—	1046	9.22	15.64	0.0005	AM
19T*	6' 6"	0'	1049	6.64	14.99	8.69	AM
19B	6' 6"	5' 6"	1050	6.79	13.71	10.8	AM
20T hyp	2' 6"	0'	1053	7.14	13.91	7.33	AM
20B	2' 6"	1' 6"	1055	7.27	13.74	8.97	AM

AM

CHAIN of CUSTODY

Lancaster Laboratories

2425 New Holland Pike
Lancaster, PA 17606-2426
(717) 656-2300



Chain Of Custody / Analysis Request

AESI Ref: 44260.31144

COC#: 30905-102620-1

Sampling Co.: Maryland Environmental Service
Client Contact: (name, co., address)
Maria Kaouris
115 Tabor Rd
Morris Plains, NJ 07950
Preliminary Data To: matthew.gillis@jacobs.com / matthew.gillis@jacobs.com
Sample Receipt: matthew.gillis@jacobs.com / matthew.gillis@jacobs.com
Hard Copy To: Amy Klopper
Invoice To: Maria Kaouris

Privileged & Confidential N
EDD To: matthew.gillis@jacobs.com
Sampler: AM, B, L, JM, JM
PO #: 4500013806
Analysis Turnaround Time (TAT): 7
Consultant CH2M
Full Report TAT: 14

Site Name: Baltimore Inner Harbor
Location of Site: BALTIMORE, MD
Phase:
Program: Surface Water Sampling
Preservative: 3
MS/MSD: SW8010 Chromium

Lab Proj # (SDG):
Lab ID: LLI
Site ID: BALTIMORE
Lab Job #:
Authorized User: Honeywell
Text & Excel File Paths: Email & Text File Order

Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	Units	ppb	MS/MSD	Sampling Method (code)	Lab Sample Numbers
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID													
1	3T	0.00	2.92	3T_040721	4/7/2021	940	W-SW	WATER	REG	4	grab	Y	X			
2	3M			3M_040721	4/7/2021		W-SW	WATER	REG	grab						
3	3B	1.92	2.92	3B_040721	4/7/2021	941	W-SW	WATER	REG	1	grab	Y	X			
4	4T	0.00	2.67	4T_040721	4/7/2021	944	W-SW	WATER	REG	1	grab	Y	X			
5	4M			4M_040721	4/7/2021		W-SW	WATER	REG	grab						
6	4B	1.67	2.67	4B_040721	4/7/2021	946	W-SW	WATER	REG	1	grab	Y	X			
7	5T	0.00	3.75	5T_040721	4/7/2021	947	W-SW	WATER	REG	1	grab	Y	X			
8	5M			5M_040721	4/7/2021		W-SW	WATER	REG	grab						
9	5B	2.75	3.75	5B_040721	4/7/2021	949	W-SW	WATER	REG	1	grab	Y	X			
10	6T	0.00	3.75	6T_040721	4/7/2021	950	W-SW	WATER	REG	1	grab	Y	X			
11	6M			6M_040721	4/7/2021		W-SW	WATER	REG	grab						
12	6B	2.75	3.25	6B_040721	4/7/2021	952	W-SW	WATER	REG	1	grab	Y	X			

Relinquished by: [Signature] Company: MES Received by: [Signature] Company: JACOBS
Date/Time: 4/7/21 1425 Date/Time: 4/7/21 1425
Relinquished by: Company: Received by: Company: Condition: Custody Seals Intact
Date/Time: Date/Time: Cooler Temp.: Cooler Temp.:

Preservatives: (Other; Specify): (pH<2, 4Deg C); 11 (4C NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2B2O3); 13 (Zn Acetate); sp (special instructions)

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Lancaster Laboratories

2425 New Holland Pike
Lancaster, PA 17605-2425
(717) 666-2300



Chain Of Custody / Analysis Request

AESI Ref: 44280.31869

COC#: 30905-102820-2

Privileged & Confidential	N	Site Name:	Baltimore BIH	Phase:		Lab Proj # (SDG):	
EDD To:	matthew.gillis@jacobs.com	Location of Site:	BALTIMORE, MD	Program	Surface Water Sampling	Lab ID	LLI
Sampler:	AM, JM, JM	Preservative	3			Site ID	BALTIMORE
PO #	4500013806	Analysis Turnaround Time (TAT):	7			Lab Job #	
Consultant		Full Report TAT:	14			Authorized User:	Honeywell
Sample Receipt						Test & Excel File Drive	Excel & Text File Order
Hard Copy To	Amy Klopper					Copyright AESI: Version 2.0	Unauthorized use strictly prohibited.
Invoice To:	Maria Kaouris						

Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	SW6010 Chromium	Units	ug/L	Sampling Method (code)	Lab Sample Numbers
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID													
1	7T	0.00	3.33	7T_040721	4/7/2021	953	W-SW	WATER	REG	1	grab	Y	X			
2	7M			7M_040721	4/7/2021		W-SW	WATER	REG		grab					
3	7B	2.33	3.33	7B_040721	4/7/2021	954	W-SW	WATER	REG	1	grab	Y	X			
4	8T	0.00	3.50	8T_040721	4/7/2021	956	W-SW	WATER	REG	1	grab	Y	X			
5	8M			8M_040721	4/7/2021		W-SW	WATER	REG		grab					
6	8B	2.50	3.50	8B_040721	4/7/2021	958	W-SW	WATER	REG	1	grab	Y	X			
7	9T	0.00	2.75	9T_040721	4/7/2021	959	W-SW	WATER	REG	1	grab	Y	X			
8	9M			9M_040721	4/7/2021		W-SW	WATER	REG		grab					
9	9B	1.75	2.75	9B_040721	4/7/2021	1001	W-SW	WATER	REG	1	grab	Y	X			
10	10T	0.00	3.01	10T_040721	4/7/2021	1002	W-SW	WATER	REG	1	grab	Y	X			
11	10M			10M_040721	4/7/2021		W-SW	WATER	REG		grab					
12	10B	2.01	3.01	10B_040721	4/7/2021	1004	W-SW	WATER	REG	1	grab	Y	X			

Relinquished by:	<i>[Signature]</i>	Company:	MEC	Received by:	<i>[Signature]</i>	Company:	Jacobs	Condition:		Custody Seals Intact:	
	Date/Time:		4/7/21 1425		Date/Time:		4/7/21 1425	Cooler Temp.:			
Relinquished by:		Company:		Received by:		Company:		Condition:		Custody Seals Intact:	
	Date/Time:				Date/Time:			Cooler Temp.:			

Preservatives: (Other, Specify): (pH<2), 4Deg C); 11 (4C NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)

Lancaster Laboratories
 2426 New Holland Pike
 Lancaster, PA 17606-2426
 (717) 666-2300



Chain Of Custody / Analysis Request

AESI Ref: 44280.32010
 COC#: 30905-102620-3

Sampling Co.: Maryland Environmental Service
Client Contact: (name, co., address)
 Maria Kaouris
 115 Tabor Rd
 Morris Plains, NJ 07950
 Preliminary Data To: matthew.gillis@jacobs.com, G:\VA\DATA\muskegon.com, bernice.muskegon@jacobs.com
 Sample Receipt: matthew.gillis@jacobs.com, G:\VA\DATA\muskegon.com
 Hard Copy To: Amy Kopper
 Invoice To: Maria Kaouris

Privileged & Confidential N
EDD To: matthew.gillis@jacobs.com
Sampler: AM, BL, JM, JM
PO #: 4500013806
Analysis Turnaround Time (TAT): 7
Consultant: CH2M
Full Report TAT: 14

Site Name: Baltimore Inner Harbor
Location of Site: BALTIMORE, MD
Phase: Surface Water Sampling
Preservative: 3
Composite/Grab:
Field Filtered Sample ?
 SW610 Chromium
 MS/MSD

Lab Proj # (SDG):
Lab ID: LLI
Site ID: BALTIMORE
Lab Job #:
Authorized User: Honeywell
 Text & Excel File Drive Text & Text File Order
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Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Units	MS/MSD	Sampling Method (code)	Lab Sample Numbers
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID										
1	11T	0.00	3.00	11T_040721	4/7/2021	1011	W-SW	WATER	REG	4	grab	Y X	
2	11M			11M_040721	4/7/2021		W-SW	WATER	REG		grab	Y X	
3	11B	2.00	3.00	11B_040721	4/7/2021	1013	W-SW	WATER	REG	1	grab	Y X	
4	12T	0.00	2.75	12T_040721	4/7/2021	1016	W-SW	WATER	REG	1	grab	Y X	
5	12M			12M_040721	4/7/2021		W-SW	WATER	REG		grab	Y X	
6	12B	1.75	2.75	12B_040721	4/7/2021	1018	W-SW	WATER	REG	1	grab	Y X	
7	13T	0.00	3.08	13T_040721	4/7/2021	1019	W-SW	WATER	REG	1	grab	Y X	
8	13M			13M_040721	4/7/2021		W-SW	WATER	REG		grab	Y X	
9	13B	2.08	3.08	13B_040721	4/7/2021	1021	W-SW	WATER	REG	1	grab	Y X	
10	14T	0.00	3.58	14T_040721	4/7/2021	1023	W-SW	WATER	REG	1	grab	Y X	
11	14M			14M_040721	4/7/2021		W-SW	WATER	REG		grab	Y X	
12	14B	2.58	3.58	14B_040721	4/7/2021	1024	W-SW	WATER	REG	1	grab	Y X	

Relinquished by: *[Signature]* Company: *MES* Received by: *[Signature]* Company: *[Signature]* Condition: *[Signature]* Custody Seals Intact:
 Date/Time: 4/7/21 1425 Date/Time: 4/17/21 1426 Cooler Temp.:
 Relinquished by: Company: Received by: Company: Condition: Custody Seals Intact:
 Date/Time: Date/Time: Cooler Temp.:

Preservatives: (Other; Specify): (pH-2), 4Deg C; 11 (4C NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)

Lancaster Laboratories		Honeywell Chain Of Custody / Analysis Request										AESI Ref: 44280.32343	
2425 New Holland Pike Lancaster, PA 17606-2425 (717) 866-2300		Privileged & Confidential		N		Site Name: Baltimore Inner Harbor		Phase: Sampling Program		Surface Water Sampling		COC#: 30965-102620-4	
Sampling Co.: Maryland Environmental Service		EDD To: matthew.gillia@jacobs.com		Location of Site: BALTIMORE, MD		Lab Proj # (SDG):		Lab ID: LLI		Site ID: BALTIMORE		Lab Job #	
Client Contact: (name, co., address) Maria Kaouns 115 Tabor Rd Morris Plains, NJ 07950		Sampler: AM, BL, JM, JM		Analysis Turnaround Time (TAT): 7		Preservative: 3		Authorized User: Honeywell		Text & Excel File Drive		Excel & Text File Order	
Preliminary Data To: [Redacted]		Consultant: CH2M		Full Report TAT: 14		Compositing/Grab		Field Filled Sample ?		SW6010 Chromium		Copyright AESI: Version 3.0 Unauthorized use strictly prohibited.	
Sample Receipt Acknowledgement To: [Redacted]		Hard Copy To: Amy Klopfer		Invoice To: Maria Kaouns									
Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Units	Sampling Method (code)	Lab Sample Numbers	
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID										
1	15T	0.00	1.50	15T_040721	4/7/2021	1025	W-SW	WATER	REG	1	grab	Y X	
2	15M			15M_040721	4/7/2021		W-SW	WATER	REG		grab		
3	15B	0.50	1.50	15B_040721	4/7/2021	1026	W-SW	WATER	REG	1	grab	Y X	
4	16T	0.00	9.58	16T_040721	4/7/2021	1028	W-SW	WATER	REG	1	grab	Y X	
5	16M			16M_040721	4/7/2021		W-SW	WATER	REG		grab	Y X	
6	16B	8.58	9.58	16B_040721	4/7/2021	1030	W-SW	WATER	REG	1	grab	Y X	
7	17T	0.00	3.00	17T_040721	4/7/2021	1031	W-SW	WATER	REG	1	grab	Y X	
8	17M			17M_040721	4/7/2021		W-SW	WATER	REG		grab		
9	17B	2.00	3.00	17B_040721	4/7/2021	1033	W-SW	WATER	REG	1	grab	Y X	
10	18T	0.00	9.75	18T_040721	4/7/2021	1035	W-SW	WATER	REG	1	grab	Y X	
11	18M			18M_040721	4/7/2021		W-SW	WATER	REG		grab		
12	18B	8.75	9.75	18B_040721	4/7/2021	1036	W-SW	WATER	REG	1	grab	Y X	
Relinquished by: [Signature]		Company: HES		Date/Time: 4/7/21 1425		Received by: [Signature]		Company: [Signature]		Date/Time: 4/28/21 1425		Condition: Cooler Temp.	
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:		Condition: Cooler Temp.	
Preservatives: (Other; Specify):													0 (none); 1 (4 Deg C); 2 (HCl pH<2); 3 (HNO3 pH<2); 4 (H2SO4 pH<2); 5 (NaOH pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4 pH<2), 4 Deg C); 8 (HCl pH<2); 9 (HCl 4 Deg C); 10 (HNO3 pH<2), 4Deg C); 11 (4C NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)

Lancaster Laboratories

2425 New Holland Pike
Lancaster, PA 17605-2425
(717) 686-2300

Honeywell

Chain Of Custody / Analysis Request

AESI Ref: 44280.33376
COC#: 30905-102620-5

Sampling Co.: Maryland Environmental Service

Privileged & Confidential N
EDD To: matthew.gillis@jacobs.com

Site Name: Baltimore Inner Harbor

Phase:

Location of Site: BALTIMORE, MD

Program

Lab Proj # (SDG):

Client Contact: (name, co., address)

Sampler: MM, BL, JM, JM

Location of Site: BALTIMORE, MD

Program

Lab ID: LLI

Maria Kaouris

PO #: 4500013806

Preservative: 3

Site ID: BALTIMORE

115 Tabor Rd

Analysis Turnaround Time (TAT): 7
Consultant CH2M

Lab Job #

Morris Plains, NJ 07950

Preliminary Data To

Full Report TAT: 14

Authorized User: Honeywell

Sample Receipt

Hard Copy To

Invoice To:

1000 Wills Street, Baltimore, MD 21231
Maria Kaouris

Sample Identification

Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Units	Composite/Grab	Field Filled Sample ?	SW6010 Chromium	ME/MSD	Sampling Method (code)	Lab Sample Numbers
1	19T	0.00	19T_040721	4/7/2021	1049	W-SW	WATER	REG	4	grab	Y	X		X		
2	19M		19M_040721	4/7/2021		W-SW	WATER	REG		grab						
3	19B	5.50	19B_040721	4/7/2021	1050	W-SW	WATER	REG	1	grab	Y	X				
4	20T	0.00	20T_040721	4/7/2021	1053	W-SW	WATER	REG	1	grab	Y	X				
5	20M		20M_040721	4/7/2021		W-SW	WATER	REG		grab						
6	20B	1.50	20B_040721	4/7/2021	1055	W-SW	WATER	REG	1	grab	Y	X				
7	Cent T	0.00	Cent T_040721	4/7/2021	936	W-SW	WATER	REG	1	grab	Y	X				
8	Cent M		Cent M_040721	4/7/2021		W-SW	WATER	REG		grab						
9	Cent B	6.92	Cent B_040721	4/7/2021	938	W-SW	WATER	REG	1	grab	Y	X				
10	LADY T	0.00	Lady T_040721	4/7/2021	933	W-SW	WATER	REG	1	grab	Y	X				
11	Lady M		Lady M_040721	4/7/2021		W-SW	WATER	REG		grab						
12	LADY B	0.83	Lady B_040721	4/7/2021	934	W-SW	WATER	REG	1	grab	Y	X				

Relinquished by: *[Signature]* Company: MEI Received by: *[Signature]* Company: Jacobs
 Date/Time: 4/7/21 1425 Date/Time: 4/7/21 1126
 Condition: Cooler Temp. Custody Seals Intact
 Relinquished by: Company: Received by: Company: Condition: Cooler Temp. Custody Seals Intact
 Date/Time: Date/Time: Condition: Cooler Temp. Custody Seals Intact

Preservatives: (Other; Specify): [pH<2; 4Deg C]; 11 (4C NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)

Appendix B
Groundwater Sampling Program Data

Appendix B-1
Raw Laboratory Data—April 2021

ANALYTICAL REPORT

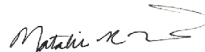
Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-36100-1
Client Project/Site: Baltimore

For:

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

Attn: Ms. Maria Kaouris



Authorized for release by:
4/23/2021 2:09:01 PM

Natalie Luciano, Principal Project Manager
(717)556-7258
Natalie.Luciano@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
 - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

A handwritten signature in black ink, appearing to read "Natalie Luciano".

Natalie Luciano
Principal Project Manager
4/23/2021 2:09:02 PM



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Definitions/Glossary

Client: Honeywell International Inc
Project/Site: Baltimore

Job ID: 410-36100-1

Qualifiers

Metals

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Honeywell International Inc
Project/Site: Baltimore

Job ID: 410-36100-1

Job ID: 410-36100-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-36100-1

Receipt

The samples were received on 4/15/2021 4:59 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.2°C

Metals

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

General Chemistry

Method 9012B: The following sample(s) were found to contain residual chlorine: OP2_041421 (410-36100-4) and OP3_041421 (410-36100-10). The chlorine was treated and removed prior to preparation/analysis.

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



Detection Summary

Client: Honeywell International Inc
Project/Site: Baltimore

Job ID: 410-36100-1

Client Sample ID: OP7_041421

Lab Sample ID: 410-36100-1

No Detections.

Client Sample ID: OP11_041421

Lab Sample ID: 410-36100-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	6.7	J	15	1.6	ug/L	1		6010C	Total Recoverable

Client Sample ID: OP5_041421

Lab Sample ID: 410-36100-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	11	J	15	1.6	ug/L	1		6010C	Total Recoverable

Client Sample ID: OP2_041421

Lab Sample ID: 410-36100-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	4400		15	1.6	ug/L	1		6010C	Total Recoverable

Client Sample ID: OP3_041421

Lab Sample ID: 410-36100-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	100000		150	16	ug/L	10		6010C	Total Recoverable
Cyanide, Total	0.0074	J	0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: OP4_041421

Lab Sample ID: 410-36100-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	190		15	1.6	ug/L	1		6010C	Total Recoverable

Client Sample ID: OP9_041421

Lab Sample ID: 410-36100-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	1400000		1500	160	ug/L	100		6010C	Total Recoverable

Client Sample ID: NVM-27_041421

Lab Sample ID: 410-36100-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	2100		150	16	ug/L	10		6010C	Total Recoverable

Client Sample ID: OP7_041421

Lab Sample ID: 410-36100-9

No Detections.

Client Sample ID: OP3_041421

Lab Sample ID: 410-36100-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.0052	J	0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: QC_041421

Lab Sample ID: 410-36100-11

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Honeywell International Inc
Project/Site: Baltimore

Job ID: 410-36100-1

Client Sample ID: QC_041421

Lab Sample ID: 410-36100-12

No Detections.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Honeywell International Inc
Project/Site: Baltimore

Job ID: 410-36100-1

Client Sample ID: OP7_041421

Lab Sample ID: 410-36100-1

Date Collected: 04/14/21 09:50

Matrix: Water

Date Received: 04/15/21 16:59

Sample Depth: 4.88 - 5.02

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	^3+	15	1.6	ug/L		04/19/21 02:55	04/19/21 12:05	1

Client Sample ID: OP11_041421

Lab Sample ID: 410-36100-2

Date Collected: 04/14/21 07:38

Matrix: Water

Date Received: 04/15/21 16:59

Sample Depth: 14.80 - 15.00

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	6.7	J	15	1.6	ug/L		04/16/21 23:04	04/23/21 08:04	1

Client Sample ID: OP5_041421

Lab Sample ID: 410-36100-3

Date Collected: 04/14/21 08:34

Matrix: Water

Date Received: 04/15/21 16:59

Sample Depth: 4.35 - 4.25

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	11	J	15	1.6	ug/L		04/16/21 23:04	04/23/21 08:08	1

Client Sample ID: OP2_041421

Lab Sample ID: 410-36100-4

Date Collected: 04/14/21 12:29

Matrix: Water

Date Received: 04/15/21 16:59

Sample Depth: 11.00 - 10.00

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	4400		15	1.6	ug/L		04/16/21 23:04	04/23/21 07:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND	F1	0.010	0.0050	mg/L		04/20/21 06:30	04/20/21 14:27	1

Client Sample ID: OP3_041421

Lab Sample ID: 410-36100-5

Date Collected: 04/14/21 13:21

Matrix: Water

Date Received: 04/15/21 16:59

Sample Depth: 17.00 - 16.95

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	100000		150	16	ug/L		04/16/21 23:04	04/23/21 08:29	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0074	J	0.010	0.0050	mg/L		04/20/21 06:30	04/20/21 14:34	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Baltimore

Job ID: 410-36100-1

Client Sample ID: OP4_041421

Lab Sample ID: 410-36100-6

Date Collected: 04/14/21 10:48

Matrix: Water

Date Received: 04/15/21 16:59

Sample Depth: 9.80 - 10.00

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	190		15	1.6	ug/L		04/16/21 23:04	04/23/21 08:01	1

Client Sample ID: OP9_041421

Lab Sample ID: 410-36100-7

Date Collected: 04/14/21 14:06

Matrix: Water

Date Received: 04/15/21 16:59

Sample Depth: 6.70 - 6.87

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	1400000		1500	160	ug/L		04/19/21 02:55	04/20/21 14:21	100

Client Sample ID: NVM-27_041421

Lab Sample ID: 410-36100-8

Date Collected: 04/14/21 06:40

Matrix: Water

Date Received: 04/15/21 16:59

Sample Depth: 5.70 - 23.20

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	2100		150	16	ug/L		04/19/21 02:55	04/20/21 14:24	10

Client Sample ID: OP7_041421

Lab Sample ID: 410-36100-9

Date Collected: 04/14/21 09:50

Matrix: Water

Date Received: 04/15/21 16:59

Sample Depth: 4.88 - 5.02

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/19/21 02:55	04/20/21 14:34	1

Client Sample ID: OP3_041421

Lab Sample ID: 410-36100-10

Date Collected: 04/14/21 13:21

Matrix: Water

Date Received: 04/15/21 16:59

Sample Depth: 17.00 - 16.95

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0052	J	0.010	0.0050	mg/L		04/20/21 06:30	04/20/21 14:36	1

Client Sample ID: QC_041421

Lab Sample ID: 410-36100-11

Date Collected: 04/14/21 12:52

Matrix: Water

Date Received: 04/15/21 16:59

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/19/21 02:55	04/20/21 14:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		04/20/21 06:30	04/20/21 14:37	1

Client Sample Results

Client: Honeywell International Inc
Project/Site: Baltimore

Job ID: 410-36100-1

Client Sample ID: QC_041421

Lab Sample ID: 410-36100-12

Date Collected: 04/14/21 12:46

Matrix: Water

Date Received: 04/15/21 16:59

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/16/21 23:04	04/23/21 06:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		04/20/21 06:30	04/20/21 14:38	1

QC Sample Results

Client: Honeywell International Inc
Project/Site: Baltimore

Job ID: 410-36100-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-115816/1-A
Matrix: Water
Analysis Batch: 118322

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 115816

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		04/16/21 23:04	04/23/21 06:16	1

Lab Sample ID: LCS 410-115816/2-A
Matrix: Water
Analysis Batch: 118322

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 115816

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	499	478		ug/L		96	80 - 120

Lab Sample ID: 410-36100-12 MS
Matrix: Water
Analysis Batch: 118322

Client Sample ID: QC_041421
Prep Type: Total Recoverable
Prep Batch: 115816

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	ND		499	567		ug/L		114	75 - 125

Lab Sample ID: 410-36100-12 MSD
Matrix: Water
Analysis Batch: 118322

Client Sample ID: QC_041421
Prep Type: Total Recoverable
Prep Batch: 115816

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND		499	590		ug/L		118	75 - 125	4	20

Lab Sample ID: 410-36100-12 DU
Matrix: Water
Analysis Batch: 118322

Client Sample ID: QC_041421
Prep Type: Total Recoverable
Prep Batch: 115816

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND			ND		ug/L				NC	20

Lab Sample ID: MB 410-116038/1-A
Matrix: Water
Analysis Batch: 116330

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 116038

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	^3+	15	1.6	ug/L		04/19/21 02:55	04/19/21 12:00	1

Lab Sample ID: LCS 410-116038/2-A
Matrix: Water
Analysis Batch: 116927

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 116038

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	499	505		ug/L		101	80 - 120

Lab Sample ID: 410-36100-1 MS
Matrix: Water
Analysis Batch: 116330

Client Sample ID: OP7_041421
Prep Type: Total Recoverable
Prep Batch: 116038

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	ND	^3+	499	482	^3+	ug/L		97	75 - 125

QC Sample Results

Client: Honeywell International Inc
Project/Site: Baltimore

Job ID: 410-36100-1

Method: 6010C - Metals (ICP)

Lab Sample ID: 410-36100-1 MSD
Matrix: Water
Analysis Batch: 116330

Client Sample ID: OP7_041421
Prep Type: Total Recoverable
Prep Batch: 116038

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	ND	^3+	499	496	^3+	ug/L		100	75 - 125	3	20

Lab Sample ID: 410-36100-1 DU
Matrix: Water
Analysis Batch: 116330

Client Sample ID: OP7_041421
Prep Type: Total Recoverable
Prep Batch: 116038

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium	ND	^3+	ND	^3+	ug/L		NC	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 410-116569/2-A
Matrix: Water
Analysis Batch: 116909

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 116569

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		04/20/21 06:30	04/20/21 14:26	1

Lab Sample ID: LCS 410-116569/1-A
Matrix: Water
Analysis Batch: 116909

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116569

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.200	0.208		mg/L		104	90 - 110

Lab Sample ID: 410-36100-4 MS
Matrix: Water
Analysis Batch: 116909

Client Sample ID: OP2_041421
Prep Type: Total/NA
Prep Batch: 116569

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND	F1	0.200	0.0388	F1	mg/L		19	72 - 114

Lab Sample ID: 410-36100-4 DU
Matrix: Water
Analysis Batch: 116909

Client Sample ID: OP2_041421
Prep Type: Total/NA
Prep Batch: 116569

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	ND	F1	ND		mg/L		NC	20

QC Association Summary

Client: Honeywell International Inc
Project/Site: Baltimore

Job ID: 410-36100-1

Metals

Prep Batch: 115816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-36100-2	OP11_041421	Total Recoverable	Water	3005A	
410-36100-3	OP5_041421	Total Recoverable	Water	3005A	
410-36100-4	OP2_041421	Total Recoverable	Water	3005A	
410-36100-5	OP3_041421	Total Recoverable	Water	3005A	
410-36100-6	OP4_041421	Total Recoverable	Water	3005A	
410-36100-12	QC_041421	Total Recoverable	Water	3005A	
MB 410-115816/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-115816/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
410-36100-12 MS	QC_041421	Total Recoverable	Water	3005A	
410-36100-12 MSD	QC_041421	Total Recoverable	Water	3005A	
410-36100-12 DU	QC_041421	Total Recoverable	Water	3005A	

Prep Batch: 116038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-36100-1	OP7_041421	Total Recoverable	Water	3005A	
410-36100-7	OP9_041421	Total Recoverable	Water	3005A	
410-36100-8	NVM-27_041421	Total Recoverable	Water	3005A	
410-36100-9	OP7_041421	Total Recoverable	Water	3005A	
410-36100-11	QC_041421	Total Recoverable	Water	3005A	
MB 410-116038/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-116038/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
410-36100-1 MS	OP7_041421	Total Recoverable	Water	3005A	
410-36100-1 MSD	OP7_041421	Total Recoverable	Water	3005A	
410-36100-1 DU	OP7_041421	Total Recoverable	Water	3005A	

Analysis Batch: 116330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-36100-1	OP7_041421	Total Recoverable	Water	6010C	116038
MB 410-116038/1-A	Method Blank	Total Recoverable	Water	6010C	116038
410-36100-1 MS	OP7_041421	Total Recoverable	Water	6010C	116038
410-36100-1 MSD	OP7_041421	Total Recoverable	Water	6010C	116038
410-36100-1 DU	OP7_041421	Total Recoverable	Water	6010C	116038

Analysis Batch: 116927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-36100-7	OP9_041421	Total Recoverable	Water	6010C	116038
410-36100-8	NVM-27_041421	Total Recoverable	Water	6010C	116038
410-36100-9	OP7_041421	Total Recoverable	Water	6010C	116038
410-36100-11	QC_041421	Total Recoverable	Water	6010C	116038
LCS 410-116038/2-A	Lab Control Sample	Total Recoverable	Water	6010C	116038

Analysis Batch: 118322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-36100-2	OP11_041421	Total Recoverable	Water	6010C	115816
410-36100-3	OP5_041421	Total Recoverable	Water	6010C	115816
410-36100-4	OP2_041421	Total Recoverable	Water	6010C	115816
410-36100-5	OP3_041421	Total Recoverable	Water	6010C	115816
410-36100-6	OP4_041421	Total Recoverable	Water	6010C	115816
410-36100-12	QC_041421	Total Recoverable	Water	6010C	115816
MB 410-115816/1-A	Method Blank	Total Recoverable	Water	6010C	115816
LCS 410-115816/2-A	Lab Control Sample	Total Recoverable	Water	6010C	115816

QC Association Summary

Client: Honeywell International Inc
Project/Site: Baltimore

Job ID: 410-36100-1

Metals (Continued)

Analysis Batch: 118322 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-36100-12 MS	QC_041421	Total Recoverable	Water	6010C	115816
410-36100-12 MSD	QC_041421	Total Recoverable	Water	6010C	115816
410-36100-12 DU	QC_041421	Total Recoverable	Water	6010C	115816

General Chemistry

Prep Batch: 116569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-36100-4	OP2_041421	Total/NA	Water	9012B	
410-36100-5	OP3_041421	Total/NA	Water	9012B	
410-36100-10	OP3_041421	Total/NA	Water	9012B	
410-36100-11	QC_041421	Total/NA	Water	9012B	
410-36100-12	QC_041421	Total/NA	Water	9012B	
MB 410-116569/2-A	Method Blank	Total/NA	Water	9012B	
LCS 410-116569/1-A	Lab Control Sample	Total/NA	Water	9012B	
410-36100-4 MS	OP2_041421	Total/NA	Water	9012B	
410-36100-4 DU	OP2_041421	Total/NA	Water	9012B	

Analysis Batch: 116909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-36100-4	OP2_041421	Total/NA	Water	9012B	116569
410-36100-5	OP3_041421	Total/NA	Water	9012B	116569
410-36100-10	OP3_041421	Total/NA	Water	9012B	116569
410-36100-11	QC_041421	Total/NA	Water	9012B	116569
410-36100-12	QC_041421	Total/NA	Water	9012B	116569
MB 410-116569/2-A	Method Blank	Total/NA	Water	9012B	116569
LCS 410-116569/1-A	Lab Control Sample	Total/NA	Water	9012B	116569
410-36100-4 MS	OP2_041421	Total/NA	Water	9012B	116569
410-36100-4 DU	OP2_041421	Total/NA	Water	9012B	116569

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Baltimore

Job ID: 410-36100-1

Client Sample ID: OP7_041421

Lab Sample ID: 410-36100-1

Date Collected: 04/14/21 09:50

Matrix: Water

Date Received: 04/15/21 16:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			116038	04/19/21 02:55	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	116330	04/19/21 12:05	WJM9	ELLE

Client Sample ID: OP11_041421

Lab Sample ID: 410-36100-2

Date Collected: 04/14/21 07:38

Matrix: Water

Date Received: 04/15/21 16:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			115816	04/16/21 23:04	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	118322	04/23/21 08:04	MDP5	ELLE

Client Sample ID: OP5_041421

Lab Sample ID: 410-36100-3

Date Collected: 04/14/21 08:34

Matrix: Water

Date Received: 04/15/21 16:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			115816	04/16/21 23:04	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	118322	04/23/21 08:08	MDP5	ELLE

Client Sample ID: OP2_041421

Lab Sample ID: 410-36100-4

Date Collected: 04/14/21 12:29

Matrix: Water

Date Received: 04/15/21 16:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			115816	04/16/21 23:04	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	118322	04/23/21 07:57	MDP5	ELLE
Total/NA	Prep	9012B			116569	04/20/21 06:30	UNJS	ELLE
Total/NA	Analysis	9012B		1	116909	04/20/21 14:27	JCG7	ELLE

Client Sample ID: OP3_041421

Lab Sample ID: 410-36100-5

Date Collected: 04/14/21 13:21

Matrix: Water

Date Received: 04/15/21 16:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			115816	04/16/21 23:04	UJL8	ELLE
Total Recoverable	Analysis	6010C		10	118322	04/23/21 08:29	MDP5	ELLE
Total/NA	Prep	9012B			116569	04/20/21 06:30	UNJS	ELLE
Total/NA	Analysis	9012B		1	116909	04/20/21 14:34	JCG7	ELLE

Client Sample ID: OP4_041421

Lab Sample ID: 410-36100-6

Date Collected: 04/14/21 10:48

Matrix: Water

Date Received: 04/15/21 16:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			115816	04/16/21 23:04	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	118322	04/23/21 08:01	MDP5	ELLE

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Baltimore

Job ID: 410-36100-1

Client Sample ID: OP9_041421

Lab Sample ID: 410-36100-7

Date Collected: 04/14/21 14:06

Matrix: Water

Date Received: 04/15/21 16:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			116038	04/19/21 02:55	UJL8	ELLE
Total Recoverable	Analysis	6010C		100	116927	04/20/21 14:21	MDP5	ELLE

Client Sample ID: NVM-27_041421

Lab Sample ID: 410-36100-8

Date Collected: 04/14/21 06:40

Matrix: Water

Date Received: 04/15/21 16:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			116038	04/19/21 02:55	UJL8	ELLE
Total Recoverable	Analysis	6010C		10	116927	04/20/21 14:24	MDP5	ELLE

Client Sample ID: OP7_041421

Lab Sample ID: 410-36100-9

Date Collected: 04/14/21 09:50

Matrix: Water

Date Received: 04/15/21 16:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			116038	04/19/21 02:55	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	116927	04/20/21 14:34	MDP5	ELLE

Client Sample ID: OP3_041421

Lab Sample ID: 410-36100-10

Date Collected: 04/14/21 13:21

Matrix: Water

Date Received: 04/15/21 16:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			116569	04/20/21 06:30	UNJS	ELLE
Total/NA	Analysis	9012B		1	116909	04/20/21 14:36	JCG7	ELLE

Client Sample ID: QC_041421

Lab Sample ID: 410-36100-11

Date Collected: 04/14/21 12:52

Matrix: Water

Date Received: 04/15/21 16:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			116038	04/19/21 02:55	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	116927	04/20/21 14:37	MDP5	ELLE
Total/NA	Prep	9012B			116569	04/20/21 06:30	UNJS	ELLE
Total/NA	Analysis	9012B		1	116909	04/20/21 14:37	JCG7	ELLE

Client Sample ID: QC_041421

Lab Sample ID: 410-36100-12

Date Collected: 04/14/21 12:46

Matrix: Water

Date Received: 04/15/21 16:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			115816	04/16/21 23:04	UJL8	ELLE
Total Recoverable	Analysis	6010C		1	118322	04/23/21 06:22	MDP5	ELLE
Total/NA	Prep	9012B			116569	04/20/21 06:30	UNJS	ELLE
Total/NA	Analysis	9012B		1	116909	04/20/21 14:38	JCG7	ELLE

Lab Chronicle

Client: Honeywell International Inc
Project/Site: Baltimore

Job ID: 410-36100-1

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Accreditation/Certification Summary

Client: Honeywell International Inc
Project/Site: Baltimore

Job ID: 410-36100-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

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

Authority	Program	Identification Number	Expiration Date
Maryland	State	100	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010C	3005A	Water	Chromium
9012B	9012B	Water	Cyanide, Total



Method Summary

Client: Honeywell International Inc
Project/Site: Baltimore

Job ID: 410-36100-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	ELLE
9012B	Cyanide, Total and/or Amenable	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	ELLE

Protocol References:

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300



Sample Summary

Client: Honeywell International Inc
Project/Site: Baltimore

Job ID: 410-36100-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
410-36100-1	OP7_041421	Water	04/14/21 09:50	04/15/21 16:59	4.88 - 5.02
410-36100-2	OP11_041421	Water	04/14/21 07:38	04/15/21 16:59	14.80 - 15.00
410-36100-3	OP5_041421	Water	04/14/21 08:34	04/15/21 16:59	4.35 - 4.25
410-36100-4	OP2_041421	Water	04/14/21 12:29	04/15/21 16:59	11.00 - 10.00
410-36100-5	OP3_041421	Water	04/14/21 13:21	04/15/21 16:59	17.00 - 16.95
410-36100-6	OP4_041421	Water	04/14/21 10:48	04/15/21 16:59	9.80 - 10.00
410-36100-7	OP9_041421	Water	04/14/21 14:06	04/15/21 16:59	6.70 - 6.87
410-36100-8	NVM-27_041421	Water	04/14/21 06:40	04/15/21 16:59	5.70 - 23.20
410-36100-9	OP7_041421	Water	04/14/21 09:50	04/15/21 16:59	4.88 - 5.02
410-36100-10	OP3_041421	Water	04/14/21 13:21	04/15/21 16:59	17.00 - 16.95
410-36100-11	QC_041421	Water	04/14/21 12:52	04/15/21 16:59	
410-36100-12	QC_041421	Water	04/14/21 12:46	04/15/21 16:59	



Lancaster Laboratories
 2425 New Holland Pike
 Lancaster, PA 17605-2425
 (717) 656-2300

Honeywell

Cha 410-36100 Chain of Custody

AESI Ref: 44299.35999
 COC# 30905-102315-01

Sampling Co.: Maryland Environmental Service
Client Contact: (name, co., address)
 Maria Kaouris
 115 Tabor Rd
 Morris Plains, NJ 07950
Preliminary Data To
Sample Receipt Acknowledgement To
Hard Copy To
 Christina Jensen
 Validata, LLC
 3346 NE 178th St.
Invoice To:
 Maria Kaouris
 115 Tabor Road
 Morris Plains, NJ 07950

Privileged & Confidential N
EDD To: Locus Focus(matthew.gillis@jacobs.com)
Sampler: BL, RK, AM, TC, JM
PO #: 4500108077
Analysis Turnaround Time (TAT): 7
Consultant: CH2M
Full Report TAT: 14

Site Name: Baltimore
Location of Site: BALTIMORE, MD
Phase: Sampling Program
Preservative: 3 5
Composite/Grab
Field Filtered Sample ?
 SW8010 Chromium
 SW90108012 Total Cyanide (auto)
 MSMSD

Lab Proj # (SDG):
Lab ID: LLI
Site ID: BALTIMORE
Lab Job #:
Authorized User: Honeywell
 Text & Excel File Drive
 Excel & Text File Order
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Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Units	ppm	ppb	MSMSD	Sampling Method (code)	Lab Sample Numbers
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID												
1	OP7	4.88 5.02	OP7_041421	4/14/2021	0950	GW-GWS	WATER	REG	4	grab	Y	X	X	BladPump	
2	OP11	14.80 15.01	OP11_041421	4/14/2021	0738	GW-GWS	WATER	REG	1	grab	Y	X		BladPump	
3	OP5	4.35 4.25	OP5_041421	4/14/2021	0834	GW-GWS	WATER	REG	1	grab	Y	X		BladPump	
4	OP2	11.00 10.00	OP2_041421	4/14/2021	1229	GW-GWS	WATER	REG	2	grab	Y	X	X	BladPump	
5	OP3	17.00 16.95	OP3_041421	4/14/2021	1321	GW-GWS	WATER	REG	2	grab	Y	X	X	BladPump	
6	OP4	9.80 10.00	OP4_041421	4/14/2021	1048	GW-GWS	WATER	REG	1	grab	Y	X		BladPump	
7	OP9	6.70 6.87	OP9_041421	4/14/2021	1400	GW-GWS	WATER	REG	1	grab	Y	X		BladPump	
8	NWM-27	5.70 23.20	NWM-27_041421	4/14/2021	0640	GW-GWS	WATER	REG	1	grab	Y	X		BladPump	
9	OP7	4.88 5.02	OP7_041421	4/14/2021	0950	GW-GWS	WATER	FD	1	grab	Y	X		BladPump	
10	OP3	17.00 16.95	OP3_041421	4/14/2021	1321	GW-GWS	WATER	FD	1	grab	Y	X	X	BladPump	
11	QC	-	QC_041421	4/14/2021	1252	BLKWATER	WATER	FB	2	grab	Y	X	X		
12	QC	-	QC_041421	4/14/2021	246	BLKWATER	WATER	FB	2	grab	Y	X	X		

Relinquished by: [Signature] Company: MES Date/Time: 4/14/21 1455
Received by: [Signature] Company: JURY Date/Time: 4/14/21 1455
Relinquished by: [Signature] Company: MES Date/Time: 4-15-21 12:02
Received by: [Signature] Company: Date/Time: 4/15/21 12:00
 Condition: Cooler Temp. 3.2°C

Preservatives: (Other; Specify): 0 (none); 1 (4 Deg C); 2 (HCl pH<2); 3 (HNO3 pH<2); 4 (H2SO4 pH<2); 5 (NaOH pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4 (pH<2), 4 Deg C); 8 (HCl pH<2); 9 (HCl 4 Deg C); 10 (HNO3 (pH<2), 4Deg C); 11 (4C NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)

Wolk 4/15/21 16:24
 Cox 4-15-21 1659

SS

JAD

Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 410-36100-1

Login Number: 36100

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Sanchez, Melvin E

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

Cyms, Carolyn

From: Cyms, Carolyn
Sent: Monday, April 19, 2021 6:31 AM
To: Bernice Kidd; Robert Steele; HTS Data Mgmt Group; Karen Mordock; Katherine Beach; Matt Gillis
Subject: Eurofins Lancaster Laboratories Env Sample Login Confirmation files from 410-36100 Baltimore
Attachments: Std_Tal_Login_Ack_ChkLst_Lmt for 410-36100-1.pdf; COC 410-36100 (202104161602).pdf

Hello,

Attached, please find the Sample Confirmation files for job 410-36100; Baltimore

The following sample(s) were found to contain residual chlorine for the Cyanide analysis: OP2_041421 (410-36100-4) and OP3_041421 (410-36100-10). The chlorine was treated and removed prior to preparation/analysis.

Please feel free to contact me or your PM, Natalie Luciano, if you have any questions.

Thank you.

Carolyn M Cyms
Sample Control Supervisor

Eurofins Lancaster Laboratories Env, LLC

E-mail: Carolyn.Cyms@eurofinset.com
www.eurofinsus.com/env



Reference: [410-199842]
Attachments: 2

> > [Bank information has changed, please refer to remittance information on invoice.](#) < <

Appendix B-2
Chain-of-Custody Records—April 2021



Lancaster Laboratories
 2425 New Holland Pike
 Lancaster, PA 17605-2425
 (717) 656-2300

Honeywell

Cha 410-36100 Chain of Custody

AESI Ref: 44299.35999
 COC# 30905-102315-01

Privileged & Confidential		N	Site Name: Baltimore	Phase: Sampling Program
Sampling Co.: Maryland Environmental Service	EDD To: Locus Focus(matthew.gillis@jacobs.com)	Location of Site: BALTIMORE, MD		
Client Contact: (name, co., address) Mana Kaouris 115 Tabor Rd Morris Plains, NJ 07950		Sampler: BL, RK, AM, TC, JM	Preservative 3 5	Lab Proj # (SDG):
Preliminary Data To		PO #: 4500108077	Analysis Turnaround Time (TAT): 7	Lab ID: LI
Sample Receipt Acknowledgement To		Consultant: CH2M	Full Report TAT: 14	Site ID: BALTIMORE
Hard Copy To Christina Jensen Validata, LLC 3346 NE 178th St.				Lab Job #:
Invoice To: Mana Kaouris 115 Tabor Road Morris Plains, NJ 07950				Authorized User: Honeywell

Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	SW8010 Chromium	SW90109012 Total Cyanide (auto)	M/SMSD	Sampling Method (code)	Lab Sample Numbers
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units	ppm	ppb				
1	OP7	4.88 5.02	OP7_041421	4/14/2021	0950	GW-GWS	WATER	REG	4	grab	Y	X		X	BladPump	
2	OP11	14.80 15.01	OP11_041421	4/14/2021	0738	GW-GWS	WATER	REG	1	grab	Y	X			BladPump	
3	OP5	4.35 4.25	OP5_041421	4/14/2021	0834	GW-GWS	WATER	REG	1	grab	Y	X			BladPump	
4	OP2	11.00 10.00	OP2_041421	4/14/2021	1229	GW-GWS	WATER	REG	2	grab	Y	X	X		BladPump	
5	OP3	17.00 16.95	OP3_041421	4/14/2021	1321	GW-GWS	WATER	REG	2	grab	Y	X	X		BladPump	
6	OP4	9.80 10.00	OP4_041421	4/14/2021	1048	GW-GWS	WATER	REG	1	grab	Y	X			BladPump	
7	OP9	6.70 6.87	OP9_041421	4/14/2021	1400	GW-GWS	WATER	REG	1	grab	Y	X			BladPump	
8	NWM-27	5.70 23.20	NWM-27_041421	4/14/2021	0640	GW-GWS	WATER	REG	1	grab	Y	X			BladPump	
9	OP7	4.88 5.02	OP7_041421	4/14/2021	0950	GW-GWS	WATER	FD	1	grab	Y	X			BladPump	
10	OP3	17.00 16.95	OP3_041421	4/14/2021	1321	GW-GWS	WATER	FD	1	grab	Y		X		BladPump	
11	QC	-	QC_041421	4/14/2021	1252	BLKWATER	WATER	FB	2	grab	Y	X	X			
12	QC	-	QC_041421	4/14/2021	246	BLKWATER	WATER	FB	2	grab	Y	X	X			

Relinquished by: <i>[Signature]</i>	Company: MES	Received by: <i>[Signature]</i>	Company: <i>[Signature]</i>	Condition:
Date/Time: 4/14/21 1455		Date/Time: 4/14/21 1455		Cooler Temp.:
Relinquished by: <i>[Signature]</i>	Company: MES	Received by: <i>[Signature]</i>	Company:	Condition:
Date/Time: 4-15-21 12:02		Date/Time: 4/15/21 12:00		Cooler Temp. 3.2°C

Preservatives: (Other; Specify): 0 (none); 1 (4 Deg C); 2 (HCl pH<2); 3 (HNO3 pH<2); 4 (H2SO4 pH<2); 5 (NaOH pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4 (pH<2), 4 Deg C); 8 (HCl pH<2); 9 (HCl 4 Deg C); 10 (HNO3 (pH<2), 4 Deg C); 11 (4C NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)

Woll 4/15/21 16:24
Con 4-15-21 1659

SS

[Signature]

Appendix B-3
Field Report—April 2021

BALTIMORE INNER HARBOR

GROUNDWATER WELL
MONITORING

April 14, 2021

Honeywell



METER CALIBRATION LOG

BIH CALIBRATION LOG

DATE	TIME	METER	BUFFER	SAMPLING EVENT	INITIALS
7/11/18	800	HORIBA 3	AUTOCAL	SEDIMENT SAMPLING	LV
8/6/18	800	HORIBA 3	AUTOCAL	SURFACE WATER	AH
10/3/18	4:52 ⁵	HORIBA 2	AUTOCAL	GROUNDWATER	AH
11/19/18	755	HORIBA 3	AUTOCAL	SURFACE WATER	LV/CH
3/4/19	945	HORIBA 3	AUTOCAL	SURFACE WATER	LV
4/10/19	0530	HORIBA 1	AUTOCAL	GROUNDWATER	BL
4/17/19	930	HORIBA 3	AUTOCAL	Drainage Layer	BRK/LV
5/14/19	830	HORIBA 3	AUTOCAL	SURFACE WATER	CH
6/20/19	915	HORIBA 3	AUTOCAL	surface water	CO
10/2/19	545	HORIBA 1	AUTOCAL	GROUNDWATER	CO
10/23/19	815	HORIBA 3	AUTOCAL	surface water	CO
3/5/20	648	HORIBA 3	AUTOCAL	Surface Water	AM
5/19/20	700	HORIBA 3	AUTOCAL	GROUNDWATER	AB
6/1/20	850	HORIBA 3	AUTOCAL	Surface Water	AB
6/2/20	917	HORIBA 3	AUTOCAL	Drainage Layer	AB
9/11/20	0840	HORIBA 3	AUTOCAL	Surface Water	BL
10/6/20	092 ⁰ 0645	HORIBA 3	AUTOCAL	GROUNDWATER	BL
11/13/20	0850	HORIBA 3	AUTOCAL	Surface Water	BL
2/24/21	0900	HORIBA 3	AUTOCAL	Surface Water	CO
4/7/21	0850	HORIBA 3	AUTOCAL	Surface Water	BL
4/19/21	0603	HORIBA 3	AUTOCAL	GROUNDWATER	BL
4/14/21	0915	HORIBA 1	AUTOCAL	GROUNDWATER	AM/TC

FIELD NOTES

BIH GWS Sampling

Well: ~~NW14-27~~
TRE

OP4

Date 4/14/21
 Samplers BL, RK, TC,
 JM, AM

Arrival time: ~~10:13~~ ~~11:29~~ 10:29

Finish time: 10:58

Sample collection time: 10:48

Well Diameter: 6"

Beginning H₂O level: ~~5.7~~ ~~9.64~~ 9.80'

Ending H₂O level: 10.00'

Time (hrs)	Temp (°C)	pH (units)	Cond (ms/cm)	DO (mg/L)	Turb (NTU)	ORP (mV)	H ₂ O level (ft)
10:39	17.68	9.87	0.723	8.33	59	49	10.05
10:41	17.04	9.70	0.390	5.83	8.9	51	10.10
10:43	16.96	9.23	0.376	5.10	91	64	10.18
10:45	16.92	8.94	0.374	4.69	7.5	71	10.16
10:47	16.91	8.75	0.373	4.52	67	75	10.18



BIM Giw Sampling

Well OP-7

Date: 4.14.2021
 Samplers: AM, JM, RK
 BI, TLE

Arrival Time: 09:18
 Finish Time: 10:05

Well Diameter: 4"
 Beginning H₂O Level: 4.88'
 Ending H₂O Level: 5.02'

Sample collection Time: 09:50

~~Sample collection Time:~~

Time (hrs)	Temp (°C)	pH (units)	Cond (ms/cm)	DO (mg/L)	Turb (NTU)	ORP (mv)	H ₂ O level (ft)
09:26	13.81	8.37	5.63	14.11	4.2	117	5.00
09:28	14.23	8.30	10.8	1.84	10.2	130	5.00
09:30	14.31	8.21	16.4	0.12	3.1	133	5.05
09:32	14.32	8.10	21.1	Ø	0.8	131	5.10
09:34	14.33	8.10	22.1	Ø	Ø	105	5.05
09:36	14.33	8.17	22.2	Ø	Ø	46	5.60
09:38	14.33	8.22	22.3	Ø	Ø	5	5.10
09:40	14.31	8.26	22.3	Ø	Ø	-11	5.08
09:42	14.30	8.29	22.2	Ø	Ø	-25	5.08
09:44	14.30	8.32	22.2	Ø	Ø	-34	5.11
09:46	14.32	8.31	22.3	Ø	Ø	-43	5.11
09:48	14.31	8.31	22.4	Ø	Ø	-47	5.15

TLE

BIM GW Sampling

Well UP 5

Date 4.14.2021
 Samplers AM, JM, RK, BL, TLE

Arrival Time: 08:03

Finish Time: 08:48

Well Diameter: 4"

Sample collection Time 08:34

Beginning H₂O Level: 4.35'

Ending H₂O Level: 4.25'

Time (HR)	Temp (C)	pH (units)	Cond (ms/cm)	DO (mg/L)	Turb (NTU)	ORP (mV)	H ₂ O Level (ft)	
08:17	13.33	5.31	0.633	9.71	1.6	283	4.40	
08:19	14.46	6.22	1.47	Ø	0.7	231	4.45	
08:21	14.57	6.55	1.45	Ø	0.5	171	4.55	
08:23	14.60	6.73	1.45	Ø	0.4	128	4.56	
08:25	14.60	6.84	1.45	Ø	0.1	97	4.60	
08:27	14.61	6.93	1.45	Ø	0.3	73	4.60	
08:29	14.61	6.99	1.48	Ø	1.5	58	4.51	
08:31	14.62	7.07	1.50	Ø	3.0	52	4.52	
08:33	14.61	7.12	1.50	Ø	3.3	48	4.52	
TLE								
							52	
							5.8	
							57.8	

BH GW Sampling

Well DP 2

Date 4/14/2021
 Samplers Am, JM, RK, BL, TLE

Arrival Time: 12:12
 Finish Time: 12:42

Well Diameter: 6"

sample collection Time: 12:29

Beginning H₂O Level: 11.00'

Ending H₂O Level: 10.00'

Time (hrs)	Temp (°C)	pH (units)	Cond (ms/cm)	DO (mg/L)	Turb (NTU)	ORP (mv)	H ₂ O Level (Ft)
12:22	16.22	7.26	5.72	3.79	11.3	184	10.2
12:24	16.19	6.82	5.82	4.45	6.1	182	10.2
12:26	16.16	6.78	5.83	4.48	5.7	180	10.3

TLE

Equipment blank
 taken here @ 12:46

57
 61

 631

Field blank @ 12:52

BH GW Sampling

Date: 4.14.2021

Samplers: AM, JM, RK, BL, TL

Well DP 3

Arrival Time: 13:03

Finish Time: 13:35

Well Diameter: 6"

Sample collection Time: 13:21

Beginning H₂O level: 17.00'

Ending H₂O level: 16.95'

Time (hrs)	Temp (°C)	pH (units)	Cond (ms/cm)	DO (mg/L)	Turb (NTU)	ORP (mV)	H ₂ O level (ft)
13:14	17.00	7.47	2.68	11.21	5.2	152	17.10
13:16	17.39	6.18	5.99	2.7	3.7	193	17.15
13:18	17.40	6.05	6.04	Ø	4.0	212	17.20
13:20	17.40	5.97	6.04	Ø	4.2	223	17.20

TL

$$\begin{array}{r} 212 \\ 21.2 \\ \hline 213.2 \end{array}$$

$$\begin{array}{r} 193 \\ 19.3 \\ \hline 212.3 \end{array}$$

BIM GW Sampling

Well ~~AP4~~ ^{ru} NWM-27

Date: 4/14/2021
 Samplers AM, JM, RK,
 BL, TLL

Arrival Time 06:13
 Finish Time 07:05

Well Diameter: 2"
 Beginning H₂O Level: 5.7'
 Ending H₂O Level: 23.2'

Sample Collection Time: 6:40

Time (hrs)	Temp (°C)	pH (units)	Cond (ms/cm)	DO (mg/L)	Turb (NTU)	ORP (mV)	H ₂ O level (ft)
06:32		8.96	1.88	2.20	475		10.2 TLL
06:35	15.88	8.71	0.877	3.47	214	233	10.3
06:37	15.58	8.48	0.876	3.50	113	228	18.4

water level dropping quickly - took sample early

TLL 06:40

BIM GW Sampling

Date 4.14.2021

Samples AM, JM, PK, BL, TL

Well ~~OP7~~ OP11
TU

Arrival Time 07:14

Finish Time 07:56

Well Diameter 4"

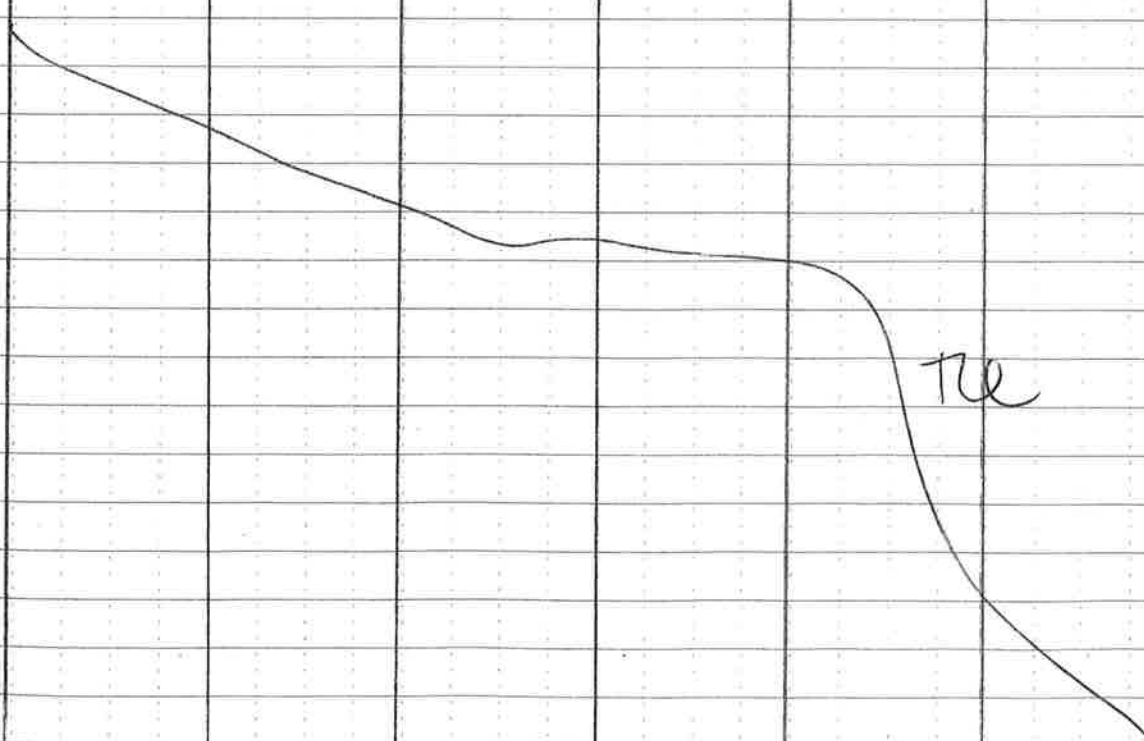
Sample collection Time: 07:38

Beginning H₂O level: 14.80'

Ending H₂O level: 15.01'

~~Sample Collection Time: 5~~ AM

Time (hrs)	Temp (C°)	pH (units)	Cond (ms/cm)	DO (mg/L)	Turb (NTU)	ORP (mV)	H ₂ O Level (ft)
07:20	14.54	8.19	0.001	13.29	415	191	TL
07:23	13.84	8.10	2.46	7.79	9.0	205	14.97
07:25	14.49	7.31	3.48	3.50	9.9	207	15.55 ¹⁵ TL
07:27	14.65	7.03	3.99	1.89	8.2	205	15.70
07:29	14.83	6.78	4.39	1.08	4.7	171	15.75
07:31	14.57	6.66	4.49	0.59	3.9	165	15.60
07:33	14.90	6.57	4.60	0.42	3.5	160	15.91
07:35	14.93	6.53	4.66	Ø	3.3	158	15.86
07:37	14.95	6.53	4.69	Ø	3.1	157	15.91



BH GW Sampling

Date 4.14.2021
 Samplers AM, JM,
 RK, BL, TL

Well: DP 9

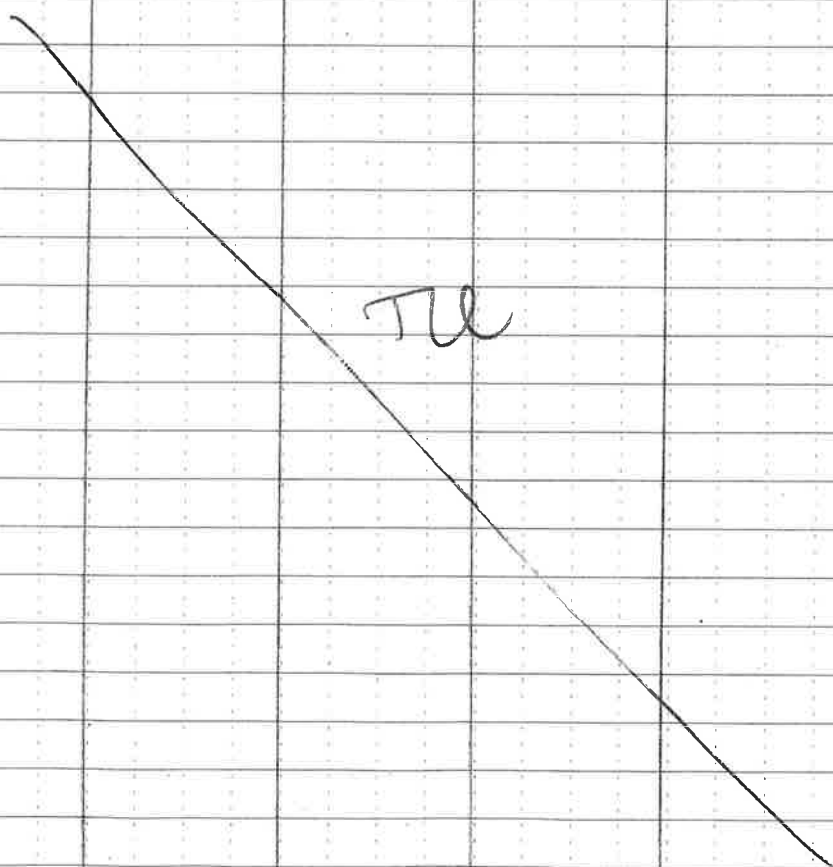
Arrival Time: 13:42
 Finish Time: 14:30

Sample collection Time: 14:00

Well Diameter: 4'

Beginning H₂O level: ~~5.80~~ ^{TL} 6.70'
 Ending H₂O level: 6.87'

Time (hrs)	pH Temp (units) (°C)	pH (units)	Cond (ms/cm)	DO (mg/L)	Turb (NTU)	ORP (mV)	H ₂ O level (ft)
13:57	14.41	6.51	13.1	10.71	8.1	248	5.85
13:59	14.99	6.08	20.1	0.44	11.2	260	5.80
14:01	15.12	6.08	20.1	Ø	10.2	271	5.90
14:03	15.14	6.09	20.1	Ø	6.3	276	6.00
14:05	15.14	6.09	20.1	Ø	4.5	280	5.90



CHAIN of CUSTODY

Lancaster Laboratories
 2425 New Holland Pike
 Lancaster, PA 17605-2425
 (717) 656-2300



Chain Of Custody / Analysis Request

AESI Ref: 44299.35993
 COC# 30905-102315-01

Privileged & Confidential

N

Site Name: Baltimore

Phase:

Lab Proj # (SDG):

Sampling Co.: Maryland Environmental Service

EDD To: Locus Focus(matthew.gillis@jacobs.com)

Location of Site: BALTIMORE, MD

Sampling Program

Lab ID: LLI

Client Contact: (name, co., address)

Sampler: BL, RK, AM, TC, JM

Preservative: 3 5

Site ID: BALTIMORE

PO #

4500108077

Analysis Turnaround Time (TAT):

7

Lab Job #

Morris Plains, NJ 07950

Consultant: CH2M

Authorized User: Honeywell

Preliminary Data To

Sample Receipt Acknowledgement To

Hard Copy To

Christina Jensen
 Validata, LLC
 3346 NE 178th St.

Full Report TAT: 14

Invoice To:

Maria Kaouris
 115 Tabor Road
 Morris Plains, NJ 07950

Sample Identification			Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	SW6010 Chromium	SW9010/6012 Total Cyanide (auto)	MS/MSD	Sampling Method (code)	Lab Sample Numbers	
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID						Units	ppm	ppb					
1	OP7	4.88	5.02	OP7_041421	4/14/2021	0950	GW-GWS	WATER	REG	4	grab	Y	X		X	BladPump
2	OP11	14.80	15.00	OP11_041421	4/14/2021	0738	GW-GWS	WATER	REG	1	grab	Y	X			BladPump
3	OP5	4.35	4.25	OP5_041421	4/14/2021	0824	GW-GWS	WATER	REG	1	grab	Y	X			BladPump
4	OP2	11.00	10.00	OP2_041421	4/14/2021	1229	GW-GWS	WATER	REG	2	grab	Y	X	X		BladPump
5	OP3	17.00	16.95	OP3_041421	4/14/2021	1321	GW-GWS	WATER	REG	2	grab	Y	X	X		BladPump
6	OP4	9.50	10.00	OP4_041421	4/14/2021	1048	GW-GWS	WATER	REG	1	grab	Y	X			BladPump
7	OP9	6.78	6.87	OP9_041421	4/14/2021	1400	GW-GWS	WATER	REG	1	grab	Y	X			BladPump
8	NWM-27	5.70	23.20	NWM-27_041421	4/14/2021	0640	GW-GWS	WATER	REG	1	grab	Y	X			BladPump
9	OP7	4.88	5.02	OP7_041421	4/14/2021	0950	GW-GWS	WATER	FD	1	grab	Y	X			BladPump
10	OP3	17.00	16.95	OP3_041421	4/14/2021	1321	GW-GWS	WATER	FD	1	grab	Y	X			BladPump
11	QC			QC_041421	4/14/2021	1252	BLKWATER	WATER	FB	2	grab	Y	X	X		
12	QC			QC_041421	4/14/2021	246	BLKWATER	WATER	FB	2	grab	Y	X	X		

Relinquished by: [Signature] Company: MFS Date/Time: 4/14/21 1455 Received by: [Signature] Company: JWC Date/Time: 4/14/21 1455 Condition: Cooler Temp.

Preservatives: (Other; Specify): 0 (none); 1 (4 Deg C); 2 (HCl pH<2); 3 (HNO3 pH<2); 4 (H2SO4 pH<2); 5 (NaOH pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4 (pH<2), 4 Deg C); 8 (HCl pH<2); 9 (HCl < Deg C); 10 (HNO3 (pH<2), 4Deg C); 11 (4C NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)



Appendix C
Drainage Layer Sampling Program Data

Appendix C-1
Raw Laboratory Data—April 2021

ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
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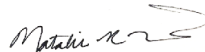
Laboratory Job ID: 410-37807-1

Client Project/Site: Baltimore Inner Harbor, MD

For:

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

Attn: Ms. Maria Kaouris



Authorized for release by:
5/11/2021 1:57:37 PM

Natalie Luciano, Principal Project Manager
(717)556-7258
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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
 - Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
- Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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A handwritten signature in black ink, appearing to read "Natalie Luciano".

Natalie Luciano
Principal Project Manager
5/11/2021 1:57:37 PM



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Definitions/Glossary

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Qualifiers

Metals

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Job ID: 410-37807-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-37807-1

Receipt

The samples were received on 4/29/2021 6:19 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.2°C

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): SSMP3_DLF_042821 (410-37807-3). The container labels list a time of 12:20, while the COC lists 12:19. The client COC was followed.

Metals

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

General Chemistry

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



Detection Summary

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Client Sample ID: SSMP2_DLF_042821

Lab Sample ID: 410-37807-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	29		15	1.6	ug/L	1		6010C	Dissolved

Client Sample ID: SSMP2_DL_042821

Lab Sample ID: 410-37807-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	4.5	J	15	1.6	ug/L	1		6010C	Total Recoverable

Client Sample ID: SSMP3_DLF_042821

Lab Sample ID: 410-37807-3

No Detections.

Client Sample ID: SSMP3_DL_042821

Lab Sample ID: 410-37807-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	5.2	J	15	1.6	ug/L	1		6010C	Total Recoverable

Client Sample ID: SSMP4_DLF_042821

Lab Sample ID: 410-37807-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.011		0.010	0.0050	mg/L	1		9012B	Dissolved

Client Sample ID: SSMP4_DL_042821

Lab Sample ID: 410-37807-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	9.8	J	15	1.6	ug/L	1		6010C	Total Recoverable

Client Sample ID: SSMP4A_DLF_042821

Lab Sample ID: 410-37807-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	2.6	J	15	1.6	ug/L	1		6010C	Dissolved

Client Sample ID: SSMP4A_DL_042821

Lab Sample ID: 410-37807-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	13	J	15	1.6	ug/L	1		6010C	Total Recoverable

Client Sample ID: SSMP3DUP_DLF_042821

Lab Sample ID: 410-37807-9

No Detections.

Client Sample ID: SSMP3DUP_DL_042821

Lab Sample ID: 410-37807-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	5.3	J	15	1.6	ug/L	1		6010C	Total Recoverable

Client Sample ID: QC_FBF_042821

Lab Sample ID: 410-37807-11

No Detections.

Client Sample ID: QC_FB_042821

Lab Sample ID: 410-37807-12

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Client Sample ID: QC_EBF_042821

Lab Sample ID: 410-37807-13

No Detections.

Client Sample ID: QC_EB_042821

Lab Sample ID: 410-37807-14

No Detections.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Client Sample ID: SSMP2_DLF_042821

Lab Sample ID: 410-37807-1

Date Collected: 04/28/21 11:38

Matrix: Water

Date Received: 04/29/21 18:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	29		15	1.6	ug/L		05/03/21 17:57	05/04/21 21:27	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		05/10/21 12:32	05/10/21 17:07	1

Client Sample ID: SSMP2_DL_042821

Lab Sample ID: 410-37807-2

Date Collected: 04/28/21 11:38

Matrix: Water

Date Received: 04/29/21 18:19

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	4.5	J	15	1.6	ug/L		05/03/21 08:42	05/05/21 19:29	1

Client Sample ID: SSMP3_DLF_042821

Lab Sample ID: 410-37807-3

Date Collected: 04/28/21 12:19

Matrix: Water

Date Received: 04/29/21 18:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		05/03/21 17:57	05/04/21 21:23	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		05/10/21 12:32	05/10/21 17:04	1

Client Sample ID: SSMP3_DL_042821

Lab Sample ID: 410-37807-4

Date Collected: 04/28/21 12:19

Matrix: Water

Date Received: 04/29/21 18:19

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	5.2	J	15	1.6	ug/L		05/03/21 08:42	05/04/21 14:41	1

Client Sample ID: SSMP4_DLF_042821

Lab Sample ID: 410-37807-5

Date Collected: 04/28/21 14:25

Matrix: Water

Date Received: 04/29/21 18:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		05/03/21 03:58	05/03/21 12:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.011		0.010	0.0050	mg/L		05/10/21 12:32	05/10/21 16:59	1

Client Sample ID: SSMP4_DL_042821

Lab Sample ID: 410-37807-6

Date Collected: 04/28/21 14:25

Matrix: Water

Date Received: 04/29/21 18:19

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	9.8	J	15	1.6	ug/L		05/03/21 08:42	05/04/21 14:55	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Client Sample ID: SSMP4A_DLF_042821

Lab Sample ID: 410-37807-7

Date Collected: 04/28/21 13:28

Matrix: Water

Date Received: 04/29/21 18:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	2.6	J	15	1.6	ug/L		05/03/21 17:57	05/04/21 21:39	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		05/10/21 12:32	05/10/21 17:09	1

Client Sample ID: SSMP4A_DL_042821

Lab Sample ID: 410-37807-8

Date Collected: 04/28/21 13:28

Matrix: Water

Date Received: 04/29/21 18:19

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	13	J	15	1.6	ug/L		05/03/21 08:42	05/04/21 14:59	1

Client Sample ID: SSMP3DUP_DLF_042821

Lab Sample ID: 410-37807-9

Date Collected: 04/28/21 12:19

Matrix: Water

Date Received: 04/29/21 18:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		05/03/21 17:57	05/04/21 21:36	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		05/10/21 12:32	05/10/21 17:06	1

Client Sample ID: SSMP3DUP_DL_042821

Lab Sample ID: 410-37807-10

Date Collected: 04/28/21 12:19

Matrix: Water

Date Received: 04/29/21 18:19

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	5.3	J	15	1.6	ug/L		05/03/21 08:42	05/04/21 14:52	1

Client Sample ID: QC_FBF_042821

Lab Sample ID: 410-37807-11

Date Collected: 04/28/21 15:04

Matrix: Water

Date Received: 04/29/21 18:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		05/03/21 17:57	05/04/21 21:42	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		05/10/21 16:46	05/11/21 11:10	1

Client Sample ID: QC_FB_042821

Lab Sample ID: 410-37807-12

Date Collected: 04/28/21 15:04

Matrix: Water

Date Received: 04/29/21 18:19

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		05/03/21 08:42	05/04/21 14:48	1

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Client Sample Results

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Client Sample ID: QC_EBF_042821

Lab Sample ID: 410-37807-13

Date Collected: 04/28/21 15:12

Matrix: Water

Date Received: 04/29/21 18:19

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		05/03/21 17:57	05/04/21 21:45	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		05/10/21 12:32	05/10/21 17:03	1

Client Sample ID: QC_EB_042821

Lab Sample ID: 410-37807-14

Date Collected: 04/28/21 15:12

Matrix: Water

Date Received: 04/29/21 18:19

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		05/03/21 08:42	05/04/21 14:45	1

QC Sample Results

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-121480/1-A
Matrix: Water
Analysis Batch: 121771

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 121480

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		05/03/21 03:56	05/03/21 11:22	1

Lab Sample ID: LCS 410-121480/2-A
Matrix: Water
Analysis Batch: 121771

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 121480

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	30.0	30.0		ug/L		100	80 - 120

Lab Sample ID: MB 410-121896/1-A
Matrix: Water
Analysis Batch: 122477

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 121896

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		05/03/21 17:57	05/04/21 20:52	1

Lab Sample ID: LCS 410-121896/2-A
Matrix: Water
Analysis Batch: 122477

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 121896

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	30.0	30.3		ug/L		101	80 - 120

Lab Sample ID: MB 410-121624/1-A
Matrix: Water
Analysis Batch: 122965

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 121624

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		15	1.6	ug/L		05/03/21 08:42	05/05/21 19:17	1

Lab Sample ID: LCS 410-121624/2-A
Matrix: Water
Analysis Batch: 122965

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 121624

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	30.0	28.5		ug/L		95	80 - 120

Lab Sample ID: 410-37807-2 MS
Matrix: Water
Analysis Batch: 122965

Client Sample ID: SSMP2_DL_042821
Prep Type: Total Recoverable
Prep Batch: 121624

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	4.5	J	30.0	34.6		ug/L		100	75 - 125

Lab Sample ID: 410-37807-2 MSD
Matrix: Water
Analysis Batch: 122965

Client Sample ID: SSMP2_DL_042821
Prep Type: Total Recoverable
Prep Batch: 121624

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	4.5	J	30.0	33.4		ug/L		97	75 - 125	3	20

QC Sample Results

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Method: 6010C - Metals (ICP)

Lab Sample ID: 410-37807-2 DU
Matrix: Water
Analysis Batch: 122965

Client Sample ID: SSMP2_DL_042821
Prep Type: Total Recoverable
Prep Batch: 121624

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Chromium	4.5	J	4.33	J	ug/L		3	20

Lab Sample ID: 410-37807-5 MS
Matrix: Water
Analysis Batch: 121771

Client Sample ID: SSMP4_DLF_042821
Prep Type: Dissolved
Prep Batch: 121480

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
Chromium	ND		30.0	27.4		ug/L		91	75 - 125

Lab Sample ID: 410-37807-5 MSD
Matrix: Water
Analysis Batch: 121771

Client Sample ID: SSMP4_DLF_042821
Prep Type: Dissolved
Prep Batch: 121480

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec. Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Chromium	ND		30.0	27.2		ug/L		91	75 - 125	1	20

Lab Sample ID: 410-37807-5 DU
Matrix: Water
Analysis Batch: 121771

Client Sample ID: SSMP4_DLF_042821
Prep Type: Dissolved
Prep Batch: 121480

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Chromium	ND		ND		ug/L		NC	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 410-124414/2-A
Matrix: Water
Analysis Batch: 124587

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 124414

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cyanide, Total	ND		0.010	0.0050	mg/L		05/10/21 12:32	05/10/21 16:57	1

Lab Sample ID: LCS 410-124414/1-A
Matrix: Water
Analysis Batch: 124587

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 124414

Analyte	Spike	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Cyanide, Total	0.201	0.199		mg/L		99	90 - 110

Lab Sample ID: 410-37807-5 MS
Matrix: Water
Analysis Batch: 124587

Client Sample ID: SSMP4_DLF_042821
Prep Type: Dissolved
Prep Batch: 124414

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
Cyanide, Total	0.011		0.201	0.195		mg/L		92	72 - 114

QC Sample Results

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: 410-37807-5 DU
Matrix: Water
Analysis Batch: 124587

Client Sample ID: SSMP4_DLF_042821
Prep Type: Dissolved
Prep Batch: 124414

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				Limit
Cyanide, Total	0.011		0.0121		mg/L		6	20

- 1
- 2
- 3
- 4
- 5
- 6
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- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Association Summary

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Metals

Prep Batch: 121480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37807-5	SSMP4_DLF_042821	Dissolved	Water	Non-Digest Prep	
MB 410-121480/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-121480/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-37807-5 MS	SSMP4_DLF_042821	Dissolved	Water	Non-Digest Prep	
410-37807-5 MSD	SSMP4_DLF_042821	Dissolved	Water	Non-Digest Prep	
410-37807-5 DU	SSMP4_DLF_042821	Dissolved	Water	Non-Digest Prep	

Prep Batch: 121624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37807-2	SSMP2_DL_042821	Total Recoverable	Water	3005A	
410-37807-4	SSMP3_DL_042821	Total Recoverable	Water	3005A	
410-37807-6	SSMP4_DL_042821	Total Recoverable	Water	3005A	
410-37807-8	SSMP4A_DL_042821	Total Recoverable	Water	3005A	
410-37807-10	SSMP3DUP_DL_042821	Total Recoverable	Water	3005A	
410-37807-12	QC_FB_042821	Total Recoverable	Water	3005A	
410-37807-14	QC_EB_042821	Total Recoverable	Water	3005A	
MB 410-121624/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-121624/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
410-37807-2 MS	SSMP2_DL_042821	Total Recoverable	Water	3005A	
410-37807-2 MSD	SSMP2_DL_042821	Total Recoverable	Water	3005A	
410-37807-2 DU	SSMP2_DL_042821	Total Recoverable	Water	3005A	

Analysis Batch: 121771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37807-5	SSMP4_DLF_042821	Dissolved	Water	6010C	121480
MB 410-121480/1-A	Method Blank	Total/NA	Water	6010C	121480
LCS 410-121480/2-A	Lab Control Sample	Total/NA	Water	6010C	121480
410-37807-5 MS	SSMP4_DLF_042821	Dissolved	Water	6010C	121480
410-37807-5 MSD	SSMP4_DLF_042821	Dissolved	Water	6010C	121480
410-37807-5 DU	SSMP4_DLF_042821	Dissolved	Water	6010C	121480

Prep Batch: 121896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37807-1	SSMP2_DLF_042821	Dissolved	Water	Non-Digest Prep	
410-37807-3	SSMP3_DLF_042821	Dissolved	Water	Non-Digest Prep	
410-37807-7	SSMP4A_DLF_042821	Dissolved	Water	Non-Digest Prep	
410-37807-9	SSMP3DUP_DLF_042821	Dissolved	Water	Non-Digest Prep	
410-37807-11	QC_FBF_042821	Dissolved	Water	Non-Digest Prep	
410-37807-13	QC_EBF_042821	Dissolved	Water	Non-Digest Prep	
MB 410-121896/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-121896/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 122329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37807-4	SSMP3_DL_042821	Total Recoverable	Water	6010C	121624
410-37807-6	SSMP4_DL_042821	Total Recoverable	Water	6010C	121624
410-37807-8	SSMP4A_DL_042821	Total Recoverable	Water	6010C	121624
410-37807-10	SSMP3DUP_DL_042821	Total Recoverable	Water	6010C	121624
410-37807-12	QC_FB_042821	Total Recoverable	Water	6010C	121624
410-37807-14	QC_EB_042821	Total Recoverable	Water	6010C	121624

QC Association Summary

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Metals

Analysis Batch: 122477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37807-1	SSMP2_DLF_042821	Dissolved	Water	6010C	121896
410-37807-3	SSMP3_DLF_042821	Dissolved	Water	6010C	121896
410-37807-7	SSMP4A_DLF_042821	Dissolved	Water	6010C	121896
410-37807-9	SSMP3DUP_DLF_042821	Dissolved	Water	6010C	121896
410-37807-11	QC_FBF_042821	Dissolved	Water	6010C	121896
410-37807-13	QC_EBF_042821	Dissolved	Water	6010C	121896
MB 410-121896/1-A	Method Blank	Total/NA	Water	6010C	121896
LCS 410-121896/2-A	Lab Control Sample	Total/NA	Water	6010C	121896

Analysis Batch: 122965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37807-2	SSMP2_DL_042821	Total Recoverable	Water	6010C	121624
MB 410-121624/1-A	Method Blank	Total Recoverable	Water	6010C	121624
LCS 410-121624/2-A	Lab Control Sample	Total Recoverable	Water	6010C	121624
410-37807-2 MS	SSMP2_DL_042821	Total Recoverable	Water	6010C	121624
410-37807-2 MSD	SSMP2_DL_042821	Total Recoverable	Water	6010C	121624
410-37807-2 DU	SSMP2_DL_042821	Total Recoverable	Water	6010C	121624

General Chemistry

Prep Batch: 124414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37807-1	SSMP2_DLF_042821	Dissolved	Water	9012B	
410-37807-3	SSMP3_DLF_042821	Dissolved	Water	9012B	
410-37807-5	SSMP4_DLF_042821	Dissolved	Water	9012B	
410-37807-7	SSMP4A_DLF_042821	Dissolved	Water	9012B	
410-37807-9	SSMP3DUP_DLF_042821	Dissolved	Water	9012B	
410-37807-11	QC_FBF_042821	Dissolved	Water	9012B	
410-37807-13	QC_EBF_042821	Dissolved	Water	9012B	
MB 410-124414/2-A	Method Blank	Total/NA	Water	9012B	
LCS 410-124414/1-A	Lab Control Sample	Total/NA	Water	9012B	
410-37807-5 MS	SSMP4_DLF_042821	Dissolved	Water	9012B	
410-37807-5 DU	SSMP4_DLF_042821	Dissolved	Water	9012B	

Analysis Batch: 124587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37807-1	SSMP2_DLF_042821	Dissolved	Water	9012B	124414
410-37807-3	SSMP3_DLF_042821	Dissolved	Water	9012B	124414
410-37807-5	SSMP4_DLF_042821	Dissolved	Water	9012B	124414
410-37807-7	SSMP4A_DLF_042821	Dissolved	Water	9012B	124414
410-37807-9	SSMP3DUP_DLF_042821	Dissolved	Water	9012B	124414
410-37807-13	QC_EBF_042821	Dissolved	Water	9012B	124414
MB 410-124414/2-A	Method Blank	Total/NA	Water	9012B	124414
LCS 410-124414/1-A	Lab Control Sample	Total/NA	Water	9012B	124414
410-37807-5 MS	SSMP4_DLF_042821	Dissolved	Water	9012B	124414
410-37807-5 DU	SSMP4_DLF_042821	Dissolved	Water	9012B	124414

Analysis Batch: 124987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-37807-11	QC_FBF_042821	Dissolved	Water	9012B	124414

Lab Chronicle

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Client Sample ID: SSMP2_DLF_042821

Lab Sample ID: 410-37807-1

Date Collected: 04/28/21 11:38

Matrix: Water

Date Received: 04/29/21 18:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			121896	05/03/21 17:57	UJLA	ELLE
Dissolved	Analysis	6010C		1	122477	05/04/21 21:27	UCIG	ELLE
Dissolved	Prep	9012B			124414	05/10/21 12:32	UJE2	ELLE
Dissolved	Analysis	9012B		1	124587	05/10/21 17:07	UJE2	ELLE

Client Sample ID: SSMP2_DL_042821

Lab Sample ID: 410-37807-2

Date Collected: 04/28/21 11:38

Matrix: Water

Date Received: 04/29/21 18:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			121624	05/03/21 08:42	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	122965	05/05/21 19:29	UCIG	ELLE

Client Sample ID: SSMP3_DLF_042821

Lab Sample ID: 410-37807-3

Date Collected: 04/28/21 12:19

Matrix: Water

Date Received: 04/29/21 18:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			121896	05/03/21 17:57	UJLA	ELLE
Dissolved	Analysis	6010C		1	122477	05/04/21 21:23	UCIG	ELLE
Dissolved	Prep	9012B			124414	05/10/21 12:32	UJE2	ELLE
Dissolved	Analysis	9012B		1	124587	05/10/21 17:04	UJE2	ELLE

Client Sample ID: SSMP3_DL_042821

Lab Sample ID: 410-37807-4

Date Collected: 04/28/21 12:19

Matrix: Water

Date Received: 04/29/21 18:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			121624	05/03/21 08:42	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	122329	05/04/21 14:41	MDP5	ELLE

Client Sample ID: SSMP4_DLF_042821

Lab Sample ID: 410-37807-5

Date Collected: 04/28/21 14:25

Matrix: Water

Date Received: 04/29/21 18:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			121480	05/03/21 03:58	UJL8	ELLE
Dissolved	Analysis	6010C		1	121771	05/03/21 12:08	MDP5	ELLE
Dissolved	Prep	9012B			124414	05/10/21 12:32	UJE2	ELLE
Dissolved	Analysis	9012B		1	124587	05/10/21 16:59	UJE2	ELLE

Lab Chronicle

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Client Sample ID: SSMP4_DL_042821

Lab Sample ID: 410-37807-6

Date Collected: 04/28/21 14:25

Matrix: Water

Date Received: 04/29/21 18:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			121624	05/03/21 08:42	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	122329	05/04/21 14:55	MDP5	ELLE

Client Sample ID: SSMP4A_DLF_042821

Lab Sample ID: 410-37807-7

Date Collected: 04/28/21 13:28

Matrix: Water

Date Received: 04/29/21 18:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			121896	05/03/21 17:57	UJLA	ELLE
Dissolved	Analysis	6010C		1	122477	05/04/21 21:39	UCIG	ELLE
Dissolved	Prep	9012B			124414	05/10/21 12:32	UJE2	ELLE
Dissolved	Analysis	9012B		1	124587	05/10/21 17:09	UJE2	ELLE

Client Sample ID: SSMP4A_DL_042821

Lab Sample ID: 410-37807-8

Date Collected: 04/28/21 13:28

Matrix: Water

Date Received: 04/29/21 18:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			121624	05/03/21 08:42	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	122329	05/04/21 14:59	MDP5	ELLE

Client Sample ID: SSMP3DUP_DLF_042821

Lab Sample ID: 410-37807-9

Date Collected: 04/28/21 12:19

Matrix: Water

Date Received: 04/29/21 18:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			121896	05/03/21 17:57	UJLA	ELLE
Dissolved	Analysis	6010C		1	122477	05/04/21 21:36	UCIG	ELLE
Dissolved	Prep	9012B			124414	05/10/21 12:32	UJE2	ELLE
Dissolved	Analysis	9012B		1	124587	05/10/21 17:06	UJE2	ELLE

Client Sample ID: SSMP3DUP_DL_042821

Lab Sample ID: 410-37807-10

Date Collected: 04/28/21 12:19

Matrix: Water

Date Received: 04/29/21 18:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			121624	05/03/21 08:42	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	122329	05/04/21 14:52	MDP5	ELLE

Client Sample ID: QC_FBF_042821

Lab Sample ID: 410-37807-11

Date Collected: 04/28/21 15:04

Matrix: Water

Date Received: 04/29/21 18:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			121896	05/03/21 17:57	UJLA	ELLE
Dissolved	Analysis	6010C		1	122477	05/04/21 21:42	UCIG	ELLE

Lab Chronicle

Client: Honeywell International Inc
 Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Client Sample ID: QC_FBF_042821

Lab Sample ID: 410-37807-11

Date Collected: 04/28/21 15:04

Matrix: Water

Date Received: 04/29/21 18:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	9012B			124414	05/10/21 16:46	UJE2	ELLE
Dissolved	Analysis	9012B		1	124987	05/11/21 11:10	JCG7	ELLE

Client Sample ID: QC_FB_042821

Lab Sample ID: 410-37807-12

Date Collected: 04/28/21 15:04

Matrix: Water

Date Received: 04/29/21 18:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			121624	05/03/21 08:42	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	122329	05/04/21 14:48	MDP5	ELLE

Client Sample ID: QC_EBF_042821

Lab Sample ID: 410-37807-13

Date Collected: 04/28/21 15:12

Matrix: Water

Date Received: 04/29/21 18:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	Non-Digest Prep			121896	05/03/21 17:57	UJLA	ELLE
Dissolved	Analysis	6010C		1	122477	05/04/21 21:45	UCIG	ELLE
Dissolved	Prep	9012B			124414	05/10/21 12:32	UJE2	ELLE
Dissolved	Analysis	9012B		1	124587	05/10/21 17:03	UJE2	ELLE

Client Sample ID: QC_EB_042821

Lab Sample ID: 410-37807-14

Date Collected: 04/28/21 15:12

Matrix: Water

Date Received: 04/29/21 18:19

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			121624	05/03/21 08:42	UJLA	ELLE
Total Recoverable	Analysis	6010C		1	122329	05/04/21 14:45	MDP5	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

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

Authority	Program	Identification Number	Expiration Date
Maryland	State	100	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6010C	3005A	Water	Chromium
6010C	Non-Digest Prep	Water	Chromium
9012B	9012B	Water	Cyanide, Total



Method Summary

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	ELLE
9012B	Cyanide, Total and/or Amenable	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300



Sample Summary

Client: Honeywell International Inc
Project/Site: Baltimore Inner Harbor, MD

Job ID: 410-37807-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-37807-1	SSMP2_DLF_042821	Water	04/28/21 11:38	04/29/21 18:19	
410-37807-2	SSMP2_DL_042821	Water	04/28/21 11:38	04/29/21 18:19	
410-37807-3	SSMP3_DLF_042821	Water	04/28/21 12:19	04/29/21 18:19	
410-37807-4	SSMP3_DL_042821	Water	04/28/21 12:19	04/29/21 18:19	
410-37807-5	SSMP4_DLF_042821	Water	04/28/21 14:25	04/29/21 18:19	
410-37807-6	SSMP4_DL_042821	Water	04/28/21 14:25	04/29/21 18:19	
410-37807-7	SSMP4A_DLF_042821	Water	04/28/21 13:28	04/29/21 18:19	
410-37807-8	SSMP4A_DL_042821	Water	04/28/21 13:28	04/29/21 18:19	
410-37807-9	SSMP3DUP_DLF_042821	Water	04/28/21 12:19	04/29/21 18:19	
410-37807-10	SSMP3DUP_DL_042821	Water	04/28/21 12:19	04/29/21 18:19	
410-37807-11	QC_FBF_042821	Water	04/28/21 15:04	04/29/21 18:19	
410-37807-12	QC_FB_042821	Water	04/28/21 15:04	04/29/21 18:19	
410-37807-13	QC_EBF_042821	Water	04/28/21 15:12	04/29/21 18:19	
410-37807-14	QC_EB_042821	Water	04/28/21 15:12	04/29/21 18:19	





410-37807 Chain of Custody

Lancaster Laboratories		<h1>Honeywell</h1> Chain Of Custody / Analysis Request										AESI Ref: 44312.30123	
2425 New Holland Pike Lancaster, PA 17605-2425 (717) 656-2300												Privileged & Confidential	
Sampling Co.: Maryland Environmental Service		EDD To: Locus Focus EIM		Location of Site: BALTIMORE, MD						Lab Proj # (SDG):			
Client Contact: (name, co., address)		Sampler: AM, RK		Site ID: BALTIMORE						Lab ID: LLI			
Mana Kaouris 115 Tabor Rd Morris Plains, NJ 07950		PO #: 4400025014		Analysis Turnaround Time (TAT): 7		Preservative: 3				Lab Job #			
Preliminary Data To: matt.gillis@jacobs.com		Consultant: CH2M		Full Report TAT: 14						Authorized User: Honeywell			
Sample Receipt Acknowledgement To: matt.gillis@jacobs.com										Text & Excel File Drive Order			
Hard Copy To: Matt Gillis										Copyright AESI: Version 8.0 Unauthorized use strictly prohibited.			
Invoice To: Maria Kaouris										Excel & Text File Order			

Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	SW6010 Chromium	SW90109012 Total Cyanide (auto)	MS/MSD	Sampling Method (code)	Lab Sample Numbers
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units	ug/L	ug/L				
1	SSMP1		SSMP1_DLF_042821	4/28/2021		W-SW	WATER	REG	2	grab	Y	X	X			
2	SSMP1		SSMP1_DL_042821	4/28/2021		W-SW	WATER	REG	1	grab	N	X				
3	SSMP2	2.81	SSMP2_DLF_042821	4/28/2021	1138	W-SW	WATER	REG	2	grab	Y	X	X			
4	SSMP2	2.81	SSMP2_DL_042821	4/28/2021	1138	W-SW	WATER	REG	1	grab	N	X				
5	SSMP3	5.90	SSMP3_DLF_042821	4/28/2021	1219	W-SW	WATER	REG	2	grab	Y	X	X			
6	SSMP3	5.90	SSMP3_DL_042821	4/28/2021	1219	W-SW	WATER	REG	1	grab	N	X				
7	SSMP4	6.78	SSMP4_DLF_042821	4/28/2021	1429	W-SW	WATER	REG	6	grab	Y	X	X		x	
8	SSMP4	6.78	SSMP4_DL_042821	4/28/2021	1429	W-SW	WATER	REG	1	grab	N	X				
9	SSMP4A	7.77	SSMP4A_DLF_042821	4/28/2021	1328	W-SW	WATER	REG	2	grab	Y	X	X			
10	SSMP4A	7.77	SSMP4A_DL_042821	4/28/2021	1328	W-SW	WATER	REG	1	grab	N	X				
11	SSMP3 DUP	5.90	SSMP3 DUP_DLF_042821	4/28/2021	1219	W-SW	WATER	FD	2	grab	Y	X	X			
12	SSMP3 DUP	5.90	SSMP3 DUP_DL_042821	4/28/2021	1219	W-SW	WATER	FD	1	grab	N	X				

Relinquished by	Company	MES	Received by	Company	Condition	Custody Seals Intact
<i>[Signature]</i>	Date/Time	4/28/21 15:24	<i>[Signature]</i>	Date/Time	4/28/21 15:26	Cooler Temp.
Relinquished by	Company	MES	Received by	Company	Condition	Custody Seals Intact
<i>[Signature]</i>	Date/Time	4/29/21 11:30	<i>[Signature]</i>	Date/Time	4/29/21 11:30	Cooler Temp. 4.2°C

Preservatives: (Other; Specify):

John 4/29/21 17:47

John 4/29/2021 18:19

KAM

CS

Lancaster Laboratories			<h1>Honeywell</h1> Chain Of Custody / Analysis Request										AESI Ref: 44312.30140	
2425 New Holland Pike Lancaster, PA 17605-2425 (717) 656-2300													Privileged & Confidential	
Sampling Co.: Maryland Environmental Service			EDD To: Locus Focus EIM		Location of Site: BALTIMORE, MD		Lab Proj # (SDG):		Lab ID: LLI		Site ID: BALTIMORE			
Client Contact: (name, co., address) Mana Kaouris 115 Tabor Rd Morris Plains, NJ 07950			Sampler: AM, RK PO #: 4400025014		Analysis Turnaround Time (TAT): 7 Consultant: CH2M		Preservative: B B B B		Lab Job #		Authorized User: Honeywell			
Preliminary Data To: malt.gillis@iacobs.com			Sample Receipt Acknowledgement To: malt.gillis@iacobs.com		Full Report TAT: 14		Invoice To: Maria Kaouris-115 Tabor Rd, Morris Plains, NJ		Text & Excel File Drive		Excel & Test File Order			
Sample Identification			Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	SW6010 Chromium	SW90109012 Total Cyanide (auto)	Copyright AESI: Version 8.0 Unauthorized use strictly prohibited.	
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID						Units	ug/L	ug/L	Sampling Method (code)	Lab Sample Numbers	
1	QC	---	QC FBF 042821	4/28/2021	1504	BLKWATER	WATER	FB	2	grab	Y	X	X	
2	QC	---	QC_FB 042821	4/28/2021	1504	BLKWATER	WATER	FB	1	grab	N	X		
3	QC	---	QC_EBF 042821	4/28/2021	1512	BLKWATER	WATER	EB	2	grab	Y	X	X	
4	QC	---	QC_EB 042821	4/28/2021	1512	BLKWATER	WATER	EB	1	grab	N	X		
5														
6														
7														
8														
9														
10														
11														
12														

Relinquished by: <i>[Signature]</i>	Company: MES	Received by: <i>[Signature]</i>	Company:	Condition:	Custody Seals Intact:
Date/Time: 4/28/21 15:24		Date/Time: 4/28/21 15:26		Cooler Temp.:	
Relinquished by: <i>[Signature]</i>	Company:	Received by: <i>[Signature]</i>	Company:	Condition:	Custody Seals Intact:
Date/Time: 4/29/21 11:30		Date/Time: 4/29/21 11:30		Cooler Temp.:	4.2°C

Preservatives: (Other; Specify): 0 (none); 1 (4 Deg C); 2 (HCl pH<2); 3 (HNO3 pH<2); 4 (H2SO4 pH<2); 5 (NaOH pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4 (pH<2), 4 Deg C); 8 (HCl pH<2); 9 (HCl 4 Deg C); 10 (HNO3 (pH<2), 4Deg C); 11 (40% NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)

Walt 4/29/21 17:47

Walt 4/29/21 18:19

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Login Sample Receipt Checklist

Client: Honeywell International Inc

Job Number: 410-37807-1

Login Number: 37807

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Sanchez, Melvin E

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	Not present
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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
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	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

Appendix C-2
Chain-of-Custody Records—April 2021



410-37807 Chain of Custody

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425 (717) 656-2300		<h1>Honeywell</h1> Chain Of Custody / Analysis Request										AESI Ref: 44312.30123 COC# 30905-040815-01			
Privileged & Confidential		N		Site Name: Baltimore		Phase: Sampling Program		Lab Proj # (SDG):		Lab ID: LU		Site ID: BALTIMORE			
Sampling Co.: Maryland Environmental Service		EDD To: Locus Focus EIM		Location of Site: BALTIMORE, MD		Lab ID: LU		Site ID: BALTIMORE		Lab Job #:		Authorized User: Honeywell			
Client Contact: (name, co., address) Mana Kaouris 115 Tabor Rd Morris Plains, NJ 07950 matt.gillis@jacobs.com		Sampler: AM, RK PO # 4400025014		Analysis Turnaround Time (TAT): 7 Consultant CH2M		Preservative: 3		Lab Job #:		Authorized User: Honeywell		Text & Excel File Drive Excel & Text File Order			
Sample Receipt Acknowledgement To Hard Copy To Invoice To: Maria Kaouris		Full Report TAT: 14		Composite/Grab		Field Filtered Sample ?		SW6010 Chromium		SW9010/9012 Total Cyanide (auto)		MS/MSD Copyright AESI: Version 8.0 Unauthorized use strictly prohibited.			
Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Units	ug/L	ug/L	MS/MSD	Sampling Method (code)	Lab Sample Numbers
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID												
1	SSMP1		SSMP1_DLF_042821	4/28/2021		W-SW	WATER	REG	2	grab	Y	X	X		
2	SSMP1		SSMP1_DL_042821	4/28/2021		W-SW	WATER	REG	1	grab	N	X			
3	SSMP2	2.81	3.09	SSMP2_DLF_042821	4/28/2021	1138	W-SW	WATER	REG	2	grab	Y	X	X	
4	SSMP2	2.81	3.09	SSMP2_DL_042821	4/28/2021	1138	W-SW	WATER	REG	1	grab	N	X		
5	SSMP3	5.90	5.82	SSMP3_DLF_042821	4/28/2021	1219	W-SW	WATER	REG	2	grab	Y	X	X	
6	SSMP3	5.90	5.82	SSMP3_DL_042821	4/28/2021	1219	W-SW	WATER	REG	1	grab	N	X		
7	SSMP4	6.78	6.88	SSMP4_DLF_042821	4/28/2021	1429	W-SW	WATER	REG	6	grab	Y	X	X	
8	SSMP4	6.78	6.88	SSMP4_DL_042821	4/28/2021	1429	W-SW	WATER	REG	1	grab	N	X		
9	SSMP4A	7.77	7.67	SSMP4A_DLF_042821	4/28/2021	1328	W-SW	WATER	REG	2	grab	Y	X	X	
10	SSMP4A	7.77	7.67	SSMP4A_DL_042821	4/28/2021	1328	W-SW	WATER	REG	1	grab	N	X		
11	SSMP3 DUP	5.90	5.82	SSMP3 DUP_DLF_042821	4/28/2021	1219	W-SW	WATER	FD	2	grab	Y	X	X	
12	SSMP3 DUP	5.90	5.82	SSMP3 DUP_DL_042821	4/28/2021	1219	W-SW	WATER	FD	1	grab	N	X		
Relinquished by		Company		Received by		Company		Condition		Custody Seals Intact					
<i>[Signature]</i>		MES		<i>[Signature]</i>				Cooler Temp.							
Date/Time		Date/Time		Date/Time		Date/Time		Cooler Temp.		Cooler Temp.		Custody Seals Intact			
4/28/21 15:24		4/28/21 15:26		4/29/21 11:30		4/29/21 11:30		4.2°C		4.2°C					
Relinquished by		Company		Received by		Company		Condition		Custody Seals Intact					
<i>[Signature]</i>		MES		<i>[Signature]</i>				Cooler Temp.							
Date/Time		Date/Time		Date/Time		Date/Time		Cooler Temp.		Cooler Temp.		Custody Seals Intact			
4/29/21 11:30		4/29/21 11:30		4/29/21 11:30		4/29/21 11:30		4.2°C		4.2°C					
Preservatives: (Other; Specify):				0 (none); 1 (4 Deg C); 2 (HCl pH<2); 3 (HNO3 pH<2); 4 (H2SO4 pH<2); 5 (NaOH pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4 (pH<2), 4 Deg C); 8 (HCl pH<2); 9 (HCl 4 Deg C); 10 (HNO3 (pH<2), 4Deg C); 11 (4C NaOH/pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special Instructions)											

John 4/29/21 17:47

[Signature] 4/29/2021 18:19

KAM

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Lancaster Laboratories		<h1>Honeywell</h1> Chain Of Custody / Analysis Request										AESI Ref: 44312.30140					
2425 New Holland Pike Lancaster, PA 17605-2425 (717) 656-2300		Privileged & Confidential			N		Site Name: Baltimore		Phase: Sampling Program		COC#: 30905-40815-02						
Sampling Co.: Maryland Environmental Service		EDD To: Locus Focus EIM			Location of Site: BALTIMORE, MD		Lab Proj # (SDG):		Lab ID: LLI		Site ID: BALTIMORE						
Client Contact: (name, co., address) Mana Kaouris 115 Tabor Rd Morris Plains, NJ 07950		Sampler: AM, RK PO #: 4400025014			Analysis Turnaround Time (TAT): 7 Consultant: CH2M		Full Report TAT: 14		Authorized User: Honeywell		Lab Job #						
Preliminary Data To: matt.gillis@iacobis.com		Sample Receipt Acknowledgement To: matt.gillis@iacobis.com		Hard Copy To: Matt Gillis-1000 Wills Street, Baltimore, MD 21231		Invoice To: Maria Kaouris-115 Tabor Rd, Morris Plains, NJ		SW6010 Chromium		SW90109012 Total Cyanide (auto)		Copyright AESI: Version 8.0 Unauthorized use strictly prohibited.					
Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	Units	ug/L	ug/L	Sampling Method (code)	Lab Sample Numbers	
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID														
1	QC	---	QC_FBF_042821	4/28/2021	1504	BLKWATER	WATER	FB	2	grab	Y	X	X				
2	QC	---	QC_FB_042821	4/28/2021	1504	BLKWATER	WATER	FB	1	grab	N	X					
3	QC	---	QC_EBF_042821	4/28/2021	1512	BLKWATER	WATER	EB	2	grab	Y	X	X				
4	QC	---	QC_EB_042821	4/28/2021	1512	BLKWATER	WATER	EB	1	grab	N	X					
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
Relinquished by		Company: MES		Received by		Company		Condition		Custody Seals Intact							
<i>[Signature]</i>		Date/Time: 4/28/21 1524		<i>[Signature]</i>		Date/Time: 4/28/21 15:26		Cooler Temp.		Custody Seals Intact							
Relinquished by		Company		Received by		Company		Condition		Custody Seals Intact							
<i>[Signature]</i>		Date/Time: 4/29/21 1130		<i>[Signature]</i>		Date/Time: 4/29/21 11:30		Cooler Temp. 4.2°C		Custody Seals Intact							
Preservatives: (Other; Specify):				0 (none); 1 (4 Deg C); 2 (HCl pH<2); 3 (HNO3 pH<2); 4 (H2SO4 pH<2); 5 (NaOH pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4 (pH<2), 4 Deg C); 8 (HCl pH<2); 9 (HCl 4 Deg C); 10 (HNO3 (pH<2), 4Deg C); 11 (40%NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)													

Walt 4/29/21 17:47

Walt 4/29/21 18:19

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Appendix C-3
Field Report—April 2021

BALTIMORE INNER HARBOR DRAINAGE LAYER MONITORING

April 28, 2021



METER CALIBRATION LOG

BIH CALIBRATION LOG

DATE	TIME	METER	BUFFER	SAMPLING EVENT	INITIALS
7/11/18	800	HORIBA 3	AUTOCAL	SEDIMENT SAMPLING	LV
8/6/18	800	HORIBA 3	AUTOCAL	SURFACE WATER	AH
10/3/18	# to 525	HORIBA 2	AUTOCAL	GROUNDWATER	AH
11/9/18	755	HORIBA 3	AUTOCAL	SURFACE WATER	LV/CH
3/4/19	945	HORIBA 3	AUTOCAL	SURFACE WATER	LV
4/10/19	0530	HORIBA 1	AutoCal	Groundwater	BL
4/17/19	930	HORIBA 3	AutoCal	to Drainage Layer	BRK/LV
5/14/19	830	HORIBA 3	AutoCal	Surface Water	CH
8/20/19	915	HORIBA 3	AutoCal	surface water	CO
10/2/19	545	HORIBA 1	AutoCal	Groundwater	CO
10/23/19	815	HORIBA 3	AutoCal	Surface water	CO
3/5/20	648	HORIBA 3	AutoCal	Surface Water	AM
5/19/20	700	HORIBA 3	AutoCal	Groundwater	AB
6/1/20	850	HORIBA 3	AutoCal	Surface Water	AB
6/2/20	917	HORIBA 3	AutoCal	Drainage Layer	AB
9/11/20	0840	HORIBA 3	AutoCal	Surface Water	BL
10/6/20	092 0645	HORIBA 3	AutoCal	Groundwater	BL
11/13/20	0850	HORIBA 3	AutoCal	Surface Water	BL
2/24/21	0900	HORIBA 3	AutoCal	Surface Water	CO
4/7/21	0850	HORIBA 3	AutoCal	Surface Water	BL
4/19/21	0603	HORIBA 3	AutoCal	Groundwater	BL
4/14/21	0915	HORIBA 1	AutoCal	Groundwater	AM/TC
4/28/21	1031	HORIBA 1	AutoCal	Groundwater	AM/RK

FIELD NOTES

B1H Drainage Layer Sampling

4/28/21

Weather Conditions: Partly Cloudy
72°F, Windy

Samplers: AM, RK

SSMP3

Sample #: SSMP3-DLF-042821
SSMP3-DL-042821

Depth to Bottom: 7.13'

Beginning H₂O level: 5.90'

Ending H₂O level: 5.82'

Sample collection time: 1219

pH: 7.44

DO: 18.81 mg/L

Sp. Cond: 18.7 msl/cm

Turb: 3.2 NTU

ORP: -139 mV

Temp: 18.40 °C

SSMP3 DUP

Sample #: SSMP3 DUP-DLF-042821

SSMP3 DUP-DF-042821

Sample collection time: 1220

Field Blank

Sample #: QC-FBF-042821

QC-FB-042821

Sample collection time: ~~1404~~^{AM} 1504

pH: 7.08

DO: 1.85 mg/L

Sp. Cond: 0.028 msl/cm

Turb: 0.0 NTU

ORP: 254 mV

Temp: 30.27 °C

BIH Drainage layer Sampling 4/28/21

Samplers: AM, RK

Equipment Blank:

Sample #: QC-EBF-042821
QC-EB-042821

Sample collection time: 1512

pH: 4.32

DO: 1.19 mg/L

Sp. Cond: 0.023 mS/cm

Turb: 0.0 NTU

ORP: 395 mV

Temp: 31.00 °C

SSMP 4

Sample #: SSMP4-DLF-0428/21
SSMP4-DL-042821

Depth to Bottom: 9.65'

Beginning H₂O ~~depth~~ level: 6.78'

Ending H₂O level: 6.88'

Sample collection time: 1425

pH: 7.82

DO: 6.72 mg/L

Sp. Cond: 24.8 mS/cm

Turb: 2.6 NTU

ORP: 23 mV

Temp: 19.45 °C

BIH Drainage layer Sampling

4/28/21

Samplers: AM, RK

SSMP 1: Well was dry, No sample taken

Sample #: N/A

Sample Depth to Bottom: 8.40'

Beginning H₂O level: 8.39'

Ending H₂O level: N/A

Sample Collection time: N/A

pH:

DO:

Sp. Cond:

Turb:

ORP:

Temp:

SSMP 4A:

Sample #: SSMP4A_DLF_042821

SSMP4A_DF_042821

Depth to Bottom: 5.65'

Beginning H₂O level: 7.77'

Ending H₂O level: 7.67'

Sample Collection time: ~~1228~~ 1328

pH: 8.70

DO: 13.56 mg/L

Sp. Cond: 0.504 mS/cm

Turb: 23.9 NTU

ORP: 56 mV

Temp: 23.93 °C

BIH Drainage Layer Sampling

4/28/21

Samplers: AM, RK


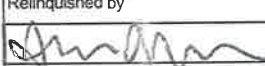
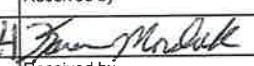
SSMP 2:

Sample #: SSMP2-DLF-042821
SSMP2-DL-042821

Depth to bottom: 6.90'
Beginning H₂O level: 2.81'
Ending H₂O level: 3.09'
Sample collection time: 11:38

pH: 6.10
DO: 6.10 mg/L
Sp. Cond: 0.232 mS/cm
Turb: 1.4 NTU
ORP: 170 mV
Temp: 19.95 °C

CHAIN of CUSTODY

Lancaster Laboratories		<h1>Honeywell</h1> Chain Of Custody / Analysis Request										AESI Ref: 44312.30123			
2425 New Holland Pike Lancaster, PA 17605-2425 (717) 656-2300												Privileged & Confidential		N	
Sampling Co.: Maryland Environmental Service		EDD To: Locus Focus EIM		Location of Site: BALTIMORE, MD								Lab ID: LLI			
Client Contact: (name, co., address) Maria Kaouris 115 Tabor Rd Morris Plains, NJ 07950		Sampler: AM, RK PO #: 4400025014		Analysis Turnaround Time (TAT): 7 Consultant: CH2M		Preservative: 3 5						Site ID: BALTIMORE			
Preliminary Data To: matt.gillis@jacobs.com		Sample Receipt Acknowledgement To: matt.gillis@jacobs.com		Hard Copy To: Matt Gillis		Invoice To: Maria Kaouris		Full Report TAT: 14				Lab Job #			
												Authorized User: Honeywell			
												Text & Excel File Drive Excel & Text File Order			
												Copyright AESI: Version 8.0 Unauthorized use strictly prohibited. 			
Sample Identification				Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample ?	SW6010 Chromium	SW9010/9012 Total Cyanide (auto)	MS/MSD	
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units	ug/L	ug/L		Sampling Method (code)	Lab Sample Numbers
1	SSMP1		SSMP1_DLF_042821	4/28/2021		W-SW	WATER	REG	2	grab	Y	X	X		
2	SSMP1		SSMP1_DL_042821	4/28/2021		W-SW	WATER	REG	1	grab	N	X			
3	SSMP2	2.81	3.09	SSMP2_DLF_042821	4/28/2021	1138	W-SW	WATER	REG	2	grab	Y	X	X	
4	SSMP2	2.81	3.09	SSMP2_DL_042821	4/28/2021	1138	W-SW	WATER	REG	1	grab	N	X		
5	SSMP3	5.90	5.82	SSMP3_DLF_042821	4/28/2021	1219	W-SW	WATER	REG	2	grab	Y	X	X	
6	SSMP3	5.90	5.82	SSMP3_DL_042821	4/28/2021	1219	W-SW	WATER	REG	1	grab	N	X		
7	SSMP4	6.78	6.88	SSMP4_DLF_042821	4/28/2021	1425	W-SW	WATER	REG	6	grab	Y	X	X	x
8	SSMP4	6.78	6.88	SSMP4_DL_042821	4/28/2021	1425	W-SW	WATER	REG	1	grab	N	X		
9	SSMP4A	7.77	7.67	SSMP4A_DLF_042821	4/28/2021	1328	W-SW	WATER	REG	2	grab	Y	X	X	
10	SSMP4A	7.77	7.67	SSMP4A_DL_042821	4/28/2021	1328	W-SW	WATER	REG	1	grab	N	X		
11	SSMP3 DUP	5.90	5.82	SSMP3_DUP_DLF_042821	4/28/2021	1219	W-SW	WATER	FD	2	grab	Y	X	X	
12	SSMP3 DUP	5.90	5.82	SSMP3_DUP_DL_042821	4/28/2021	1219	W-SW	WATER	FD	1	grab	N	X		
Relinquished by: 		Company: MES		Received by: 		Company:		Condition:		Custody Seals Intact:					
Date/Time: 4/28/21 1524		Date/Time: 4/28/21 15:26		Cooler Temp.:		Custody Seals Intact:									
Relinquished by:		Company:		Received by:		Company:		Condition:		Custody Seals Intact:					
Date/Time:		Date/Time:		Cooler Temp.:		Custody Seals Intact:									
Preservatives: (Other; Specify):		0 (none); 1 (4 Deg C); 2 (HCl pH<2); 3 (HNO3 pH<2); 4 (H2SO4 pH<2); 5 (NaOH pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4 (pH<2), 4 Deg C); 8 (HCl pH<2); 9 (HCl 4 Deg C); 10 (HNO3 (pH<2), 4Deg C); 11 (4C NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)													

Lancaster Laboratories
 2425 New Holland Pike
 Lancaster, PA 17605-2425
 (717) 656-2300



Chain Of Custody / Analysis Request

AESI Ref: 44312.30140

COC# 30905-40815-02

Privileged & Confidential N Site Name: Baltimore Phase: Sampling Program Lab Proj # (SDG):

EDD To: Locus Focus EIM Location of Site: BALTIMORE, MD Lab ID: LLI

Client Contact: (name, co., address) Sampler: AM, RK Site ID: BALTIMORE

PO # 4400025014 Preservative 3 5 0 Lab Job #

Analysis Turnaround Time (TAT): 7 Consultant: CH2M Authorized User: Honeywell

Full Report TAT: 14 Text & Excel File Drive Excal & Text File Order

Copyright AESI: Version 8.0 Unauthorized use strictly prohibited.

Sample Identification

Sample Date Sample Time Sample Type Sample Matrix Sample Purpose # of Cont.

Composite/Grab Field Filtered Sample ? SW6010 Chromium SW9010/9012 Total Cyanide (auto)

Units ug/L ug/L

Sampling Method (code) Lab Sample Numbers

Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Units	ug/L	ug/L	Sampling Method (code)	Lab Sample Numbers
1	QC	///	QC_FBF_042821	4/28/2021	1504	BLKWATER	WATER	FB	2	grab	Y	X		
2	QC	///	QC_FB_042821	4/28/2021	1504	BLKWATER	WATER	FB	1	grab	N	X		
3	QC	///	QC_EBF_042821	4/28/2021	1512	BLKWATER	WATER	EB	2	grab	Y	X	X	
4	QC	///	QC_EB_042821	4/28/2021	1512	BLKWATER	WATER	EB	1	grab	N	X		
5														
6														
7														
8														
9														
10														
11														
12														

Relinquished by Company: MES Received by Company: Condition: Custody Seals Intact

Date/Time: 4/28/21 15:26 Date/Time: 4/28/21 15:26 Cooler Temp.:

Relinquished by Company: Received by Company: Condition: Custody Seals Intact

Date/Time: Date/Time: Cooler Temp.:

Preservatives: (Other; Specify):

0 (none); 1 (4 Deg C); 2 (HCl pH<2); 3 (HNO3 pH<2); 4 (H2SO4 pH<2); 5 (NaOH pH>12); 6 (NaOH, Zn Acetate); 7 (H2SO4 (pH<2), 4 Deg C); 8 (HCl pH<2); 9 (HCl 4 Deg C); 10 (HNO3 (pH<2), 4Deg C); 11 (4C NaOH (pH>12) & Ascorbic Acid); 12 (4C H2SO4 (pH<2) & Na2S2O3); 13 (Zn Acetate); sp (special instructions)

Appendix D
Current Quarterly Validation Report

Appendix D-1
Quality Control Summary—Second Quarter
2021

QUALITY CONTROL SUMMARY

This section is a summary of the quality control (QC) review results for samples collected on April 7, 2021, for the Honeywell, Baltimore Inner Harbor project. Eurofins Lancaster Laboratories of Lancaster, Pennsylvania performed the chemical analyses for all samples. The samples were verified in accordance with National Functional Guidelines for Inorganic Review (U.S. EPA 2017) as applicable to the specification contained in SW-846 methodologies, and the project specific requirements set forth in the Work Plan. One sample delivery group (SDG) was associated with this data set: 410-35284-1. All field samples and associated QC samples were analyzed for total and/or dissolved chromium by SW-846 6010C. Samples were filtered in the field for dissolved metals analysis.

The quality of the data was assessed according to the U.S. EPA's PARCC (precision, accuracy, representativeness, completeness, and comparability) parameters. These criteria were used to identify unacceptable or biased data that could result in corrective actions being implemented or otherwise require qualification of the data. The following is a brief summary of PARCC criteria that were reviewed during verification of the data.

PRECISION AND ACCURACY

Precision and accuracy were evaluated based on the QC results generated from laboratory matrix spike and matrix spike duplicate (MS/MSD) samples, laboratory control samples (LCS), laboratory control duplicate (LCSD) samples, and laboratory duplicate samples. In addition, initial and continuing calibration results were used to assess accuracy.

REPRESENTATIVENESS

Representativeness was evaluated through the analysis of method blank samples, field blank samples, and calibration blank samples. Analysis of these types of samples is important to distinguish between ambient sampling and analytical levels, and actual site contamination.

COMPLETENESS

Data completeness was evaluated based on the samples requested on the chain-of-custody documentation and the samples reported by the laboratory.

COMPARABILITY

Comparability was achieved by analyzing the samples according to the specified standard methods. Lancaster Eurofins laboratory used U.S. EPA methods for the analysis of the samples. The reporting limits were elevated if the sample was analyzed at a dilution.

The following paragraphs summarize the review of data based on the PARCC criteria.

FIELD DUPLICATES

Four chromium field duplicate samples were collected during this sampling event and analyzed. All acceptance criteria were met.

LABORATORY REPLICATES

Two chromium laboratory replicates were analyzed during this sampling round. The results compared.

LABORATORY BLANKS

The laboratory analyzed blanks in accordance to the analytical method. Chromium was not detected in the blanks.

FIELD BLANKS

Three equipment rinsate blanks and one field blank sample were collected during this sampling event. Chromium was not detected in the field blanks.

MATRIX SPIKE/MATRIX SPIKE DUPLICATES

Five chromium MS/MSD sets were analyzed during this sampling event. All acceptance criteria for precision and accuracy were met.

SAMPLE RECEIPT, HOLDING TIMES AND PRESERVATION

The samples were received within the recommended temperature of $4\pm 2^{\circ}\text{C}$ at 1.7 and 2.8° C. All samples were prepared and analyzed within holding time criteria.

SUMMARY OF DATA QUALITY AND RELIABILITY

The evaluation of the data against PARCC criteria provided information on the data quality and reliability. All data are of known and acceptable quality based on the laboratory-established acceptance control limits or U.S. EPA guidance.

Attachment 3
HMS Groundwater Gradient Performance Report

Head Maintenance System Groundwater
Gradient Monitoring
Quarterly Report No. 127
Second Quarter 2021

Baltimore Inner Harbor
Baltimore, Maryland

Prepared for

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July 2021

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Appendixes

A	HMS Gradient Charts
B	HMS Pumping Charts
C	Manual Verification Reports

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1-1	System Events
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Acronyms and Abbreviations

DDP	<i>Final Area 1, Phase 1 Detailed Development Plan, Baltimore Works Site, Baltimore, Maryland</i> (December 3, 2013)
EPA	U.S. Environmental Protection Agency
HMS	Head Maintenance System
INSQL	Industrial System Query Language
MDE	Maryland Department of the Environment
MSS	Master Supervisory System
Performance Standard	Groundwater Gradient Performance Standard
RAM	random access memory
RIC	remote intelligence controller
Site	Honeywell Baltimore Inner Harbor Site

1. HMS Groundwater Gradient Monitoring Report

1.1 Purpose

This report documents the performance of the hydraulic barrier and head maintenance system (HMS) at the Baltimore Inner Harbor Site (site), during the second quarter of 2021. The submittal constitutes a Progress Report in accordance with the requirements of Section V.3 of the Consent Decree, entered into by Honeywell (formerly AlliedSignal, Inc.), the U.S. Environmental Protection Agency (EPA), and the Maryland Department of the Environment (MDE) dated September 29, 1989, and requiring that a progress report be submitted every calendar quarter during the life of the Consent Decree. This report provides the data required to satisfy the requirements specified by the *Groundwater Gradient Monitoring Plan* (June 1995).

1.2 Objective

The objective of this report is to document the performance of the vertical hydraulic barrier and head maintenance system (HMS) at the Site. The HMS installed as part of the final remedial construction at the Site includes vaults, pumps, controls, valves, conduits, and tanks. This report documents compliance with the Groundwater Gradient Performance Standard (performance standard), which requires Honeywell to maintain an inward groundwater gradient at the Site. The HMS performance is monitored, controlled, and recorded by the Master Supervisory System (MSS) installed at the Site as part of the corrective measures.

1.3 Groundwater Gradient Performance Standard

The performance standard is set forth in Section V, Paragraphs 13.b and c, of the Consent Decree, Second Amendment:

b. The following Groundwater Gradient Performance Standard shall be established: for each pair of piezometers, for every 30 day period, the average hydraulic head measured at the piezometer inside the barrier shall be lower than the average hydraulic head measured at the piezometer outside the barrier, and the absolute value of the average hydraulic head differential shall be greater than a value which represents the sum of 0.01 feet plus two times the maximum potential error of measurement of the hydraulic head in any one piezometer. Said value shall represent the arithmetic average of hourly readings for the aforementioned period.

and

c. Defendant shall monitor the performance of the deep vertical hydraulic barrier at the points and times and in the manner specified in the approved Groundwater Gradient Monitoring Plan.

The performance standard was also described by the *Corrective Measures Implementation Program Plan*, May 1990, Section 2.3.2, Subpart 1, Horizontal Groundwater Gradient Performance Standard:

Piezometer pairs, one on the inside and one on the outside of the hydraulic barrier, located as described in the Consent Decree, will be monitored at the required frequency to demonstrate that an inward hydraulic gradient exists. Each piezometer will be measured hourly and averaged arithmetically over a 30-day period, to determine that the 30-day running average of the inside piezometer's hydraulic head is at least 0.01 foot less than the corresponding outside piezometer's hydraulic head for each piezometer pair location. Additionally, for each performance standard piezometer pair, for any hourly head measurement, if the inward gradient decreases to where the inside piezometric head is 0.01 foot, or less, than the outside piezometric head, groundwater extraction will commence in the vicinity of the inside piezometer. Groundwater extraction will continue until the piezometric head at the outside piezometer becomes greater than 0.01 foot relative to the corresponding inside piezometer.

The performance standard was further developed, based on design review, in the *HMS Corrective Measures Prefinal Design Plans, Volume II, Design Report*, 1994. The design report incorporated into

the performance standard the calculation of the HMS's inherent measurement error for the water levels, as detailed in the report's Section 3.4 and Appendix 2.2. The performance standard calculation for each piezometer pair was established as the minimum head difference, plus twice the measurement error at one piezometer, or

$$\text{Performance Standard} = [0.01 \text{ foot} + (2 \times \text{HMS water level measurement error})].$$

The 1994 design report calculated the HMS piezometer measurement error based on the then-current design and instrumentation selection. This calculation was revised because the water level instrumentation was updated and installed into the HMS piezometers. The current performance standard for the installed ultrasonic water level devices is $[0.01 \text{ foot} + (2 \times 0.031 \text{ measurement error})] = 0.072 \text{ foot}$. The revised error calculation memorandum is presented in Appendix E of the *Baltimore Works Operation and Maintenance Plan*, dated May 2001.

1.4 Gradient Data—Second Quarter of 2021

During the second quarter of 2021, the HMS groundwater gradient met the performance standard according to the data recorded by the MSS. Data were not recorded during brief periods at certain locations when the water level monitoring system was disabled due to maintenance or in the event of an equipment malfunction. The groundwater gradient data are presented in Appendix A. The data are presented via charts and plots that include the following:

- One 30-day running hourly average gradient chart (represents a compilation of all 16 piezometer pair gradients) documents that the groundwater gradient measured across the Site were above the calculated performance standard of 0.072 foot.
- Sixteen quarterly well level charts, one for each piezometer pair, indicate when a piezometer pair's hourly gradient falls below the MSS control set point (the programmed gradient set point that initiates pumping activity) and when the extraction wells begin to pump. The charts illustrate the approximate pumping periods and rates. The MSS control set point is established above the calculated performance standard (a preset operating margin). The MSS control set point is set to 0.10 foot, slightly above the calculated performance criterion of 0.072 foot, as discussed in Section 1.3.
- Three monthly summary plots of the groundwater gradient for the Site indicate the average of the hourly gradients for the specified month, for each piezometer pair.

This report is provided as a digital download, and all supporting data for the second quarter of 2021 are presented as follows:

- The data were transferred to Microsoft Excel workbooks from the Industrial System Query Language (INSQL) database, which resides on the MSS.
- Each workbook, except the pump rate comparison, contains separate worksheets for the source data, formatted data, and the data chart, and includes the individual piezometer readings.
- The summary 30-day running hourly average gradient chart is complex and may not open with less than 128 megabytes of random access memory (RAM).

An explanation of qualified data for each period is presented below.

1.5 Qualified Data

Select data used to generate the graphical representation of the 30-day running hourly average gradient may be interpolated (all other charts use the MSS data as recorded). Interpolation of the data may occur whenever a short-term problem occurs, such as a temporary loss of communications with ultrasonic sensors or a short-term power failure.

1.5.1 System Performance

In instances when an interruption in data collection occurred, the MSS data logging system was evaluated and repaired so data collection could resume. During these events, if the hourly gradient reached the MSS control set point, pumping started automatically unless system power was lost. The 30-day running hourly average gradient remained in compliance with the performance standard during the second quarter.

1.5.2 System Events

During this quarter, the system was monitored consistently to maintain system performance and reduce periodic data non-acquisition. Table 1-1 presents descriptions of system events during this quarter.

Table 1-1. System Events

Date	Description
4/07/2021	Monthly piezometer inspections were performed.
4/07/2021	The quarterly surface water sampling was performed.
4/14/2021	The semiannual groundwater sampling was performed.
4/15/2021	Monthly vault inspections were performed.
4/28/2021	The annual drainage layer sampling was performed.
5/04/2021	Monthly piezometer inspections were performed.
5/13/2021	Monthly vault inspections were performed.
5/18/2021	Replaced IP3 ultrasonic sensor.
5/20/2021	Repair wiring to address piezometer alarm in vault 9.
5/25/2021	Repair pressure indicator transmitter (PIT) in vault 5.
5/27/2021	Replace failed GFCI in vaults 3 and 4.
5/28/2021	Replaced air solenoid valve and pressure indicator transmitter (PIT) in vault 5.
6/8/2021-6/9/2021	Monthly piezometer inspections were performed.
6/16/2021	Monthly vault inspection were performed
6/21/2021	Vault 7 reset leak detection system
6/23/2021	Inspect well 1S. Check distance to bottom and investigate poor well pumping flow rate.
6/28/2021	Replaced V7 Leak detection control unit
6/28/2021	Tightened control system terminal connections V7 and V11.

1.6 Below-grade Vault Inspection

The equipment in the 13 below-grade vaults, located generally equidistant from each other along the perimeter of the Site, is inspected every month. Inspections are completed by staff from the site operations and maintenance (O&M) provider, Maryland Environmental Service.

The inspections identified the following items:

- April 2021
 - Multiple sump leads were cleaned to remove calcification.

- Receptacle Ground Fault Interrupters (GFI's) in Vault 3 and Vault 4 failed to trip during testing and were replaced on May 27, 2021
- Vault 5 pressure indicating transmitter (PIT) was not operating and was replaced on 5/28/2021
- May 2021
 - Multiple sump leads were cleaned to remove calcification.
 - Vault 3 and Vault 4 GFCI's were not operating and were replaced on May 27, 2021.
 - The desiccant containers for all the electrical control panels were inspected and replaced, as needed.
- June 2021
 - Vault 1 pressure indicating transmitter (PIT) was not functioning and was reset.
 - Vault 3 and Vault 4 GFCI's were tested and are still functioning correctly after repair made on May 27, 2021

1.7 The HMS Pumping

The HMS has pumped groundwater at a stable rate since the completion of the multimedia cap in the second quarter of 1999, with a steady state condition reached in 2005. With the start of the installation of pile and opening of the synthetic layers during site redevelopment starting in June 2014, the pumping rates have increased. Groundwater pumping volumes by the HMS pumps for April, May, and June were approximately 6,263 gallons, 7,845 gallons, and 2,002 gallons, respectively. An additional estimated 6,954 gallons of water was extracted by the sump pumps.

The rate of groundwater pumping generally increases during the winter months, when tides are lower, and decreases generally in the summer months, when tides are higher. Groundwater pumping volumes from 1999 through the second quarter of 2021 were compared and are presented in two charts in Appendix B. These charts include the total pump volume per month and quarterly pump volume per extraction well.

During site development, construction perforations of the synthetic layers of the cap were required to drive pile. While the synthetic layers were removed, rainfall did account for a significant volume of water generated by the HMS. All synthetic layer penetrations for the Exelon Tower construction were closed on May 27, 2015. In February 2016, excavation began in preparation for the sheet pile wall extension associated with the Point Street Apartments construction project. In March 2016, the geomembrane was opened and sheet pile driving began; driving was completed on March 28, 2016. HMS components were monitored closely during all below-cap work. On April 11, 2016, all synthetic layer penetrations associated with the Point Street Apartments construction were closed. Construction of the Wills Wharf office building began in May 2018. Between June 18, 2018, and August 24, 2018, sections of the geomembrane over the southeast portion of Area 1 were removed to allow sheet pile reinforcement and pile cap construction. Upon completion of the sheet pile installation and pile cap construction, the multimedia cap over the impacted areas was restored in accordance with the Final Area 1, Phase 1 Detailed Development Plan, Baltimore Works Site, Baltimore, Maryland (December 3, 2013) (DDP). Intrusive work activities associated with the Wills Wharf construction concluded on August 24, 2018. Water continues to be extracted by the shallow groundwater system and the sump system. Water volumes generated by the sump system are being recorded.

Section 5.2.1 of the DDP stated that potentially 700,000 gallons of water will be displaced during development pile driving. Construction-related activities have increased the volume of extracted groundwater during the period covered by this report. The HMS system performed as intended, maintaining the 30-day running average groundwater gradient below the performance standard throughout the second quarter.

2. Piezometer Verification and Site Surveying

Section V.13 of the Consent Decree defines the requirements for monitoring the performance of the deep hydraulic barrier as follows: "...defendant shall monitor the performance of the deep vertical hydraulic barrier at the points and times and in the manner specified in the approved Groundwater Gradient Monitoring Plan." Section 4 of the *Groundwater Gradient Monitoring Plan* defines the procedures for validating water level readings taken by the HMS as "...obtaining manual measurements, resurveying of the piezometers and calibration and precision testing of the instrumentation." Section 4.7 of the *Groundwater Gradient Monitoring Plan* states that "...verification activities will be reported in the quarterly progress reports." These activities are described in this section.

2.1 Manual Verification of Sensor Readings

The *Groundwater Gradient Monitoring Plan* defines the procedures to obtain manual measurements in the following manner: "Each piezometer will be opened, and an electronic water level instrument will be inserted to record the current level." Section 4.2 of the *Groundwater Gradient Monitoring Plan* states that "replicate analyses will occur on 20 percent of manual water level measurements collected to assess precision." The data quality goal for precision is ± 5 percent, or less than 0.01 foot. Section 4.2 defines accuracy as "the difference between experimental results and true values." The method for determining accuracy is later defined as follows: "...accuracy will be based upon these readings." This statement is interpreted to mean that accuracy will be assessed by reviewing the readings taken during manual verification. The data quality goal for accuracy is ± 10 percent, or less than 0.02 foot.

Manual verification readings began with the installation of the final ultrasonic water level sensor in July 1999. Manual verification readings were taken every 2 weeks until December 2001 to establish a statistically relevant database of manual readings. In December 2001, the frequency of readings was reduced to once per month. Historically, only the data from the first monthly verification readings taken each quarter were included in the quarterly report. In compliance with comments in the U.S. Army Corps of Engineers report to EPA titled, *Honeywell Baltimore Works Surface Water Split Sampling and Horizontal Gradient Manual Verification Audit Report* (August 26, 2005), all manual verification readings taken during the time period covered by this report are included herein.

On April 7, 2021, groundwater elevation readings from 21 of the piezometers indicated that there was a difference greater than 0.02 foot between the value reported by the automated measurement devices and the manual measurements. The differences between 12 of the manual measurements from the piezometers and the automatic readings reported by the HMS were greater than 0.05 foot, and 4 of the differences were greater than 0.10 foot. The differences between the gradients recorded by the MSS computer from March 9, 2021, to April 7, 2021, and the gradients measured manually on April 1, 2020, were also reviewed. During this time period, a gradient greater than 0.072 was maintained even when the difference between the automated readings taken by the MSS and the manual readings taken during the manual verification readings were taken into account. These data are presented in Appendix C.

On May 7, 2021, readings from 21 of the piezometers indicated a difference greater than 0.02 foot between the measurement devices and the manual measurements. The differences between 8 of the manual measurements from the piezometers and the automatic readings reported by the HMS were greater than 0.05 foot, and 4 of the differences greater than 0.10 foot. The differences between the gradients recorded by the MSS computer from April 7, 2021, to May 7, 2021, and the gradients measured manually on May 12, 2020, were reviewed. During the specified time period, a gradient greater than 0.072 was maintained, even when the differences between the automated readings taken by the MSS and the manual readings taken during the manual verification readings were taken into account. These data are presented in Appendix C.

On June 8, 2021, readings from 23 piezometers indicated a difference greater than 0.02 foot between the measurement devices and the manual measurements. The differences between 15 of the manual measurements from the piezometers and the automatic readings reported by the HMS were greater than 0.05 foot, and 4 of the differences were greater than 0.10 foot. The differences between the gradients

recorded by the MSS computer from May 7, 2020, to June 8, 2021, and the gradients measured manually on June 9, 2020, were reviewed. During the specified time period, a gradient greater than 0.072 was maintained, even when the differences between the automated readings taken by the MSS and the manual readings taken during the manual verification readings were taken into account. These data are presented in Appendix C.

The precision of the manual readings taken during the second quarter was 100 percent, as defined by the *Groundwater Gradient Monitoring Plan*. The manual verification readings taken during this quarter are included in Appendix C.

2.1.1 Actions Taken to Correct Variance in Reported Values

The following actions were taken to address the variance between the manual water level elevations taken in the field and the readings reported by the HMS:

- All data reported to the MSS were reviewed daily, except for data collected on weekends or holidays, which were reviewed on the following workday.
- The ultrasonic water level meters were calibrated using correction values obtained from manual verification readings taken in April, May, and June 2021. Additional manual verification readings were taken as needed due to development construction and noted errors.
- On May 18, 2021 the ultrasonic level sensor for inner piezometer 3 (deep) was replaced
- On June 10, 2021, manual water level readings were taken at piezometers OP3S, IP5, OP5, IP6 and OP10 to obtain a more accurate reading.

2.2 Verification Surveying

Section 4.7 of the *Groundwater Gradient Monitoring Plan* specifies that annual surveying of the groundwater level reference elevation point will occur until three consecutive measurements show no change. Thereafter, the frequency of verification surveying is once every other year for three events, or 6 years. If no change is noted, then verification surveying will occur once every 5 years until there is a change in elevation readings.

Section 5.4 of the *Honeywell Baltimore Works Operation and Maintenance Plan* states that annual measurement of six settlement monitoring points will occur until three consecutive measurements show no change. Section 4.2 of the *Groundwater Gradient Monitoring Plan* defines the precision and accuracy goals of the readings taken during verification surveying as 0.01 and 0.02 foot, respectively.

The 2020 annual site survey was performed between August 24, 2020, and September 23, 2020, by Stantec. The next survey event is anticipated to be completed in the third quarter of 2021.

The accuracy of the surveying method for the 2020 annual survey was reported as plus or minus 0.01 foot, thereby meeting the accuracy requirement. In response to comments on the *Baltimore Inner Harbor HMS Groundwater Gradient Monitoring Quarterly Progress Report First Quarter, 2005*, Honeywell clarified that errors in precision and accuracy can be additive. If the current reading is within 0.03 foot of the reading from the prior year, no change in elevation reading is noted for that location.

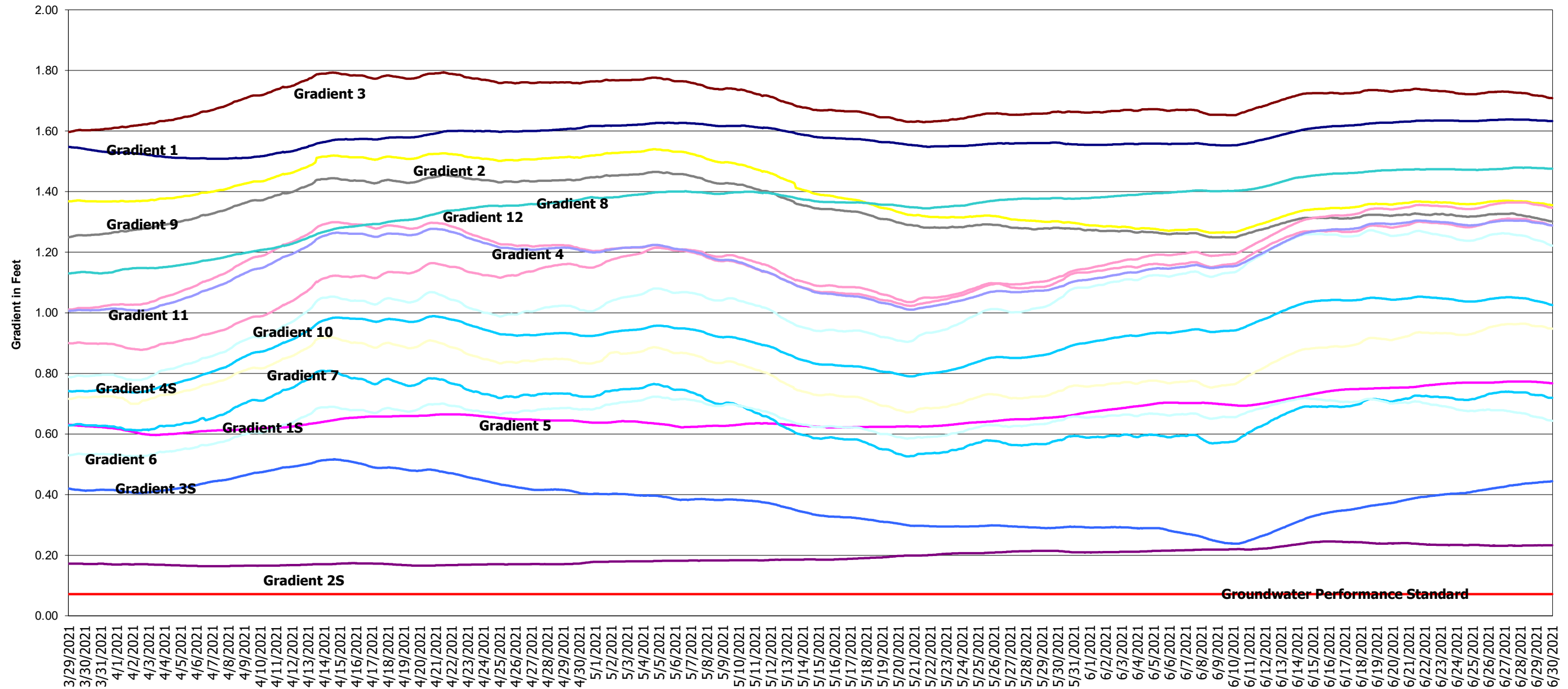
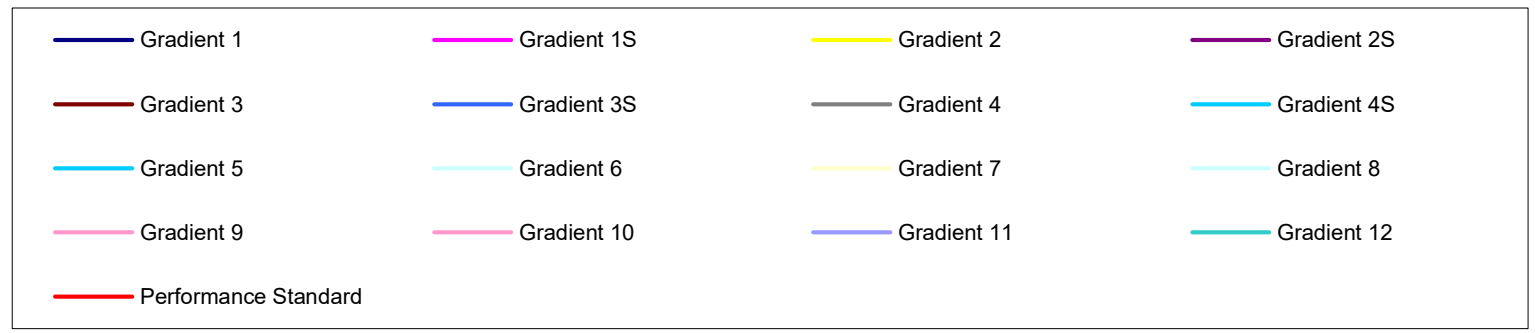
The *Baltimore Inner Harbor HMS Groundwater Gradient Monitoring Quarterly Report No. 92–Third Quarter 2011* included a review of the historical verification surveying data and established the precedent that current survey results be compared to historical maximum and minimum reported values. All of the vertical readings obtained during the 2020 annual verification survey were between the maximum and minimum historical values reported for each location, or within an acceptable deviation. Certain monitoring point measurements for 2020 were significantly different when compared to historical values, because of changes made to the site layout for area redevelopment

Appendix A

HMS Gradient Charts

- 30-Day Running Hourly Average Gradient Chart (All Wells)
- Quarterly Well Level and Pumping Charts: Wells 1, 1S, 2, 2S, 3, 3S, 4, 4s, and 5 through 12
- Monthly Averages of Hourly HMS Gradients

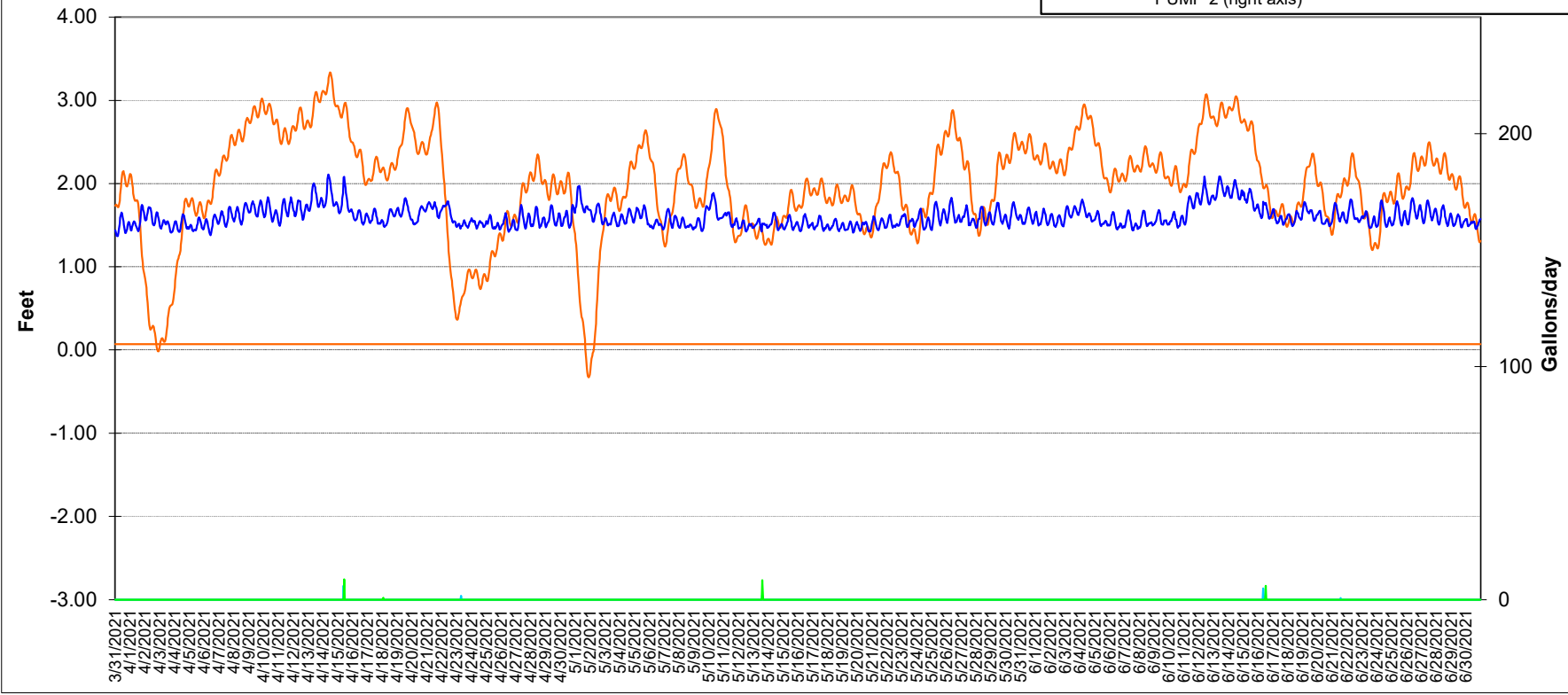
HONEYWELL BALTIMORE SITE HEAD MAINTENANCE SYSTEM 30 DAY RUNNING HOURLY AVERAGE GRADIENT CHART QUARTER ENDING JUNE 30, 2021



Piezometer Pair 1
End 6/30/21 11:59 PM

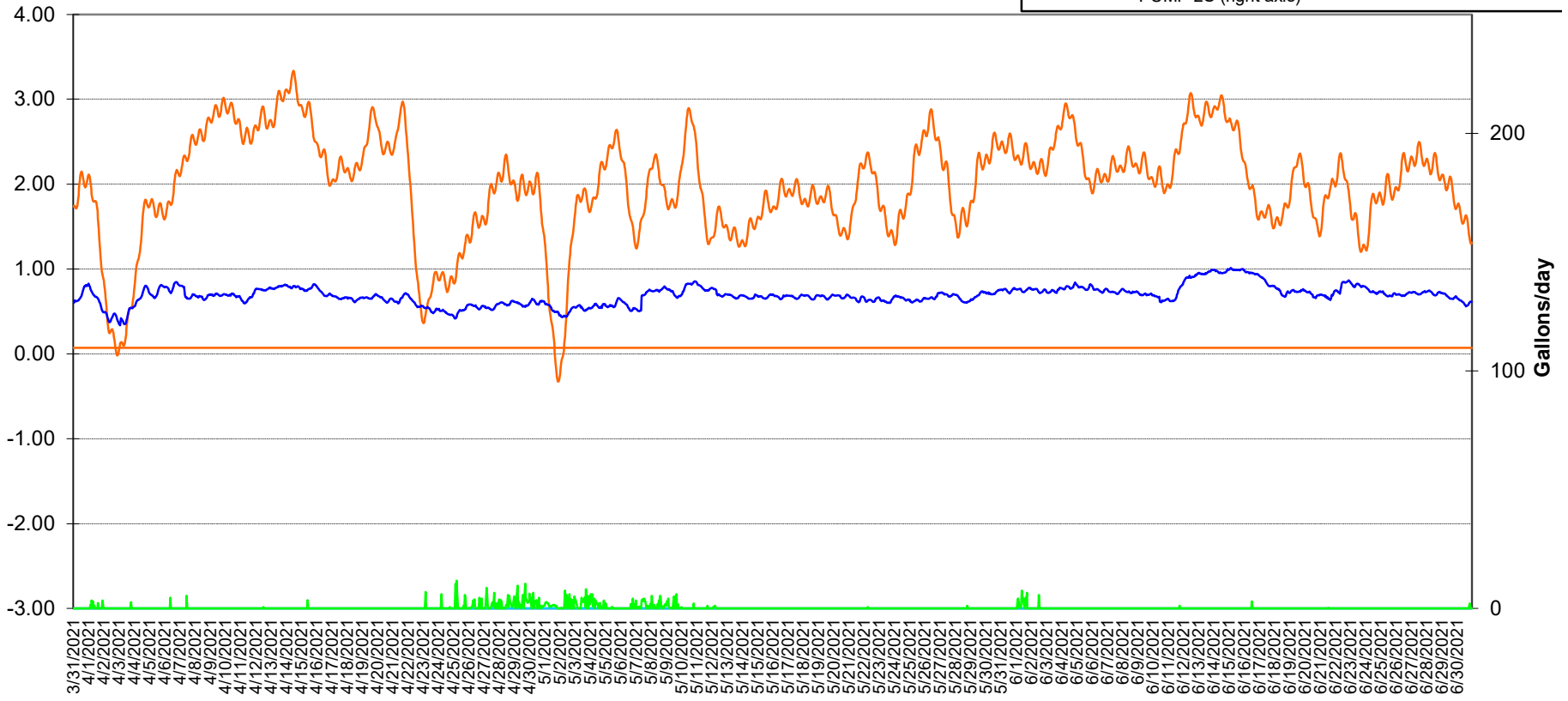
**HONEYWELL BALTIMORE SITE
HEAD MAINTENANCE SYSTEM
QUARTERLY WELL CHART
CHART ENDING JUNE 30, 2021**

- PIEZOMETER PAIR 1
- GRADIENT PERFORMANCE STANDARD, 0.07 ft
- TIDE
- HOURLY GRADIENT 1
- PUMP 1 (right axis)
- PUMP 2 (right axis)



**HONEYWELL BALTIMORE SITE
HEAD MAINTENANCE SYSTEM
QUARTERLY WELL CHART
CHART ENDING JUNE 30, 2021**

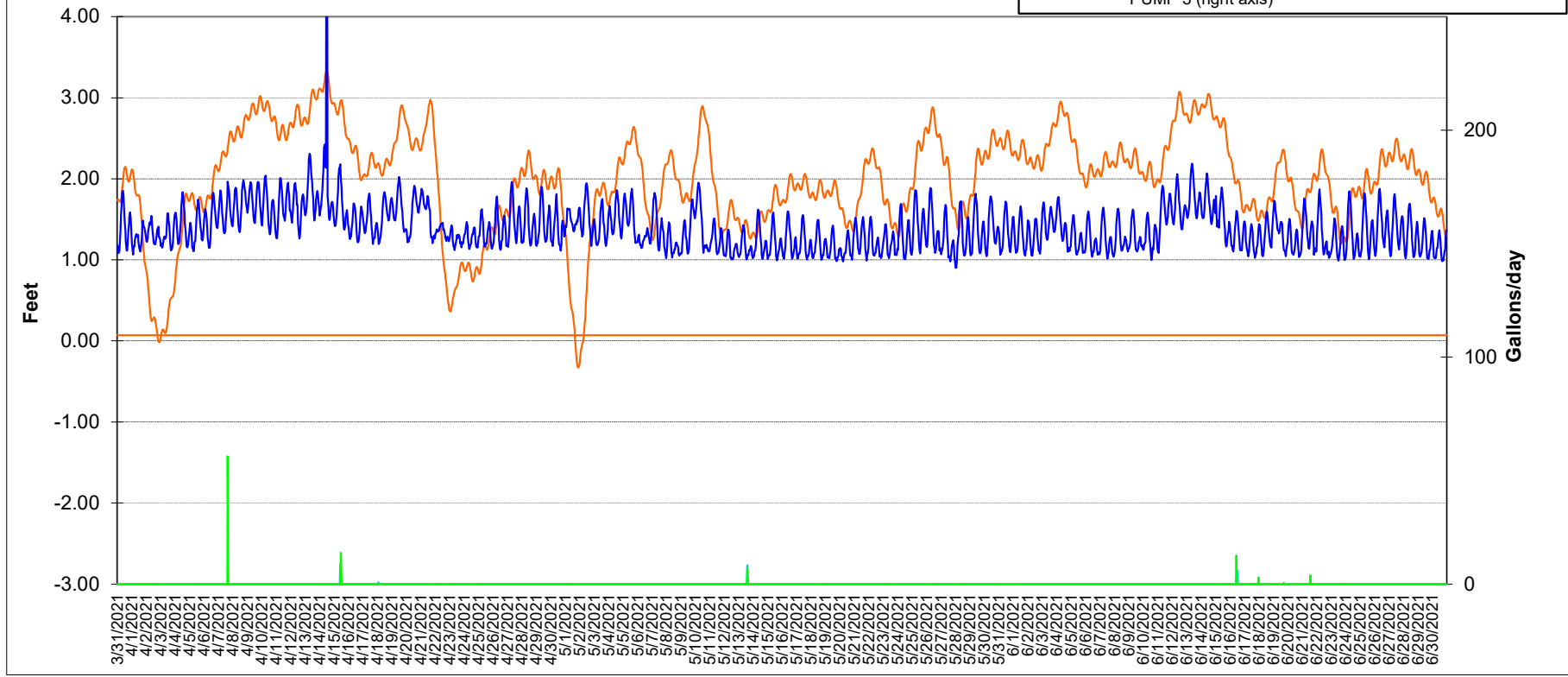
- PIEZOMETER PAIR 1S
- GRADIENT PERFORMANCE STANDARD, 0.07 ft
- TIDE
- HOURLY GRADIENT 1S
- PUMP 1S (right axis)
- PUMP 2S (right axis)



Piezometer Pair 2
End 6/30/21 11:59 PM

**HONEYWELL BALTIMORE SITE
HEAD MAINTENANCE SYSTEM
QUARTERLY WELL CHART
CHART ENDING JUNE 30, 2021**

- PIEZOMETER PAIR 2
- GRADIENT PERFORMANCE STANDARD, 0.07 ft
- TIDE
- HOURLY GRADIENT 2
- PUMP 2 (right axis)
- PUMP 3 (right axis)



Piezometer Pair

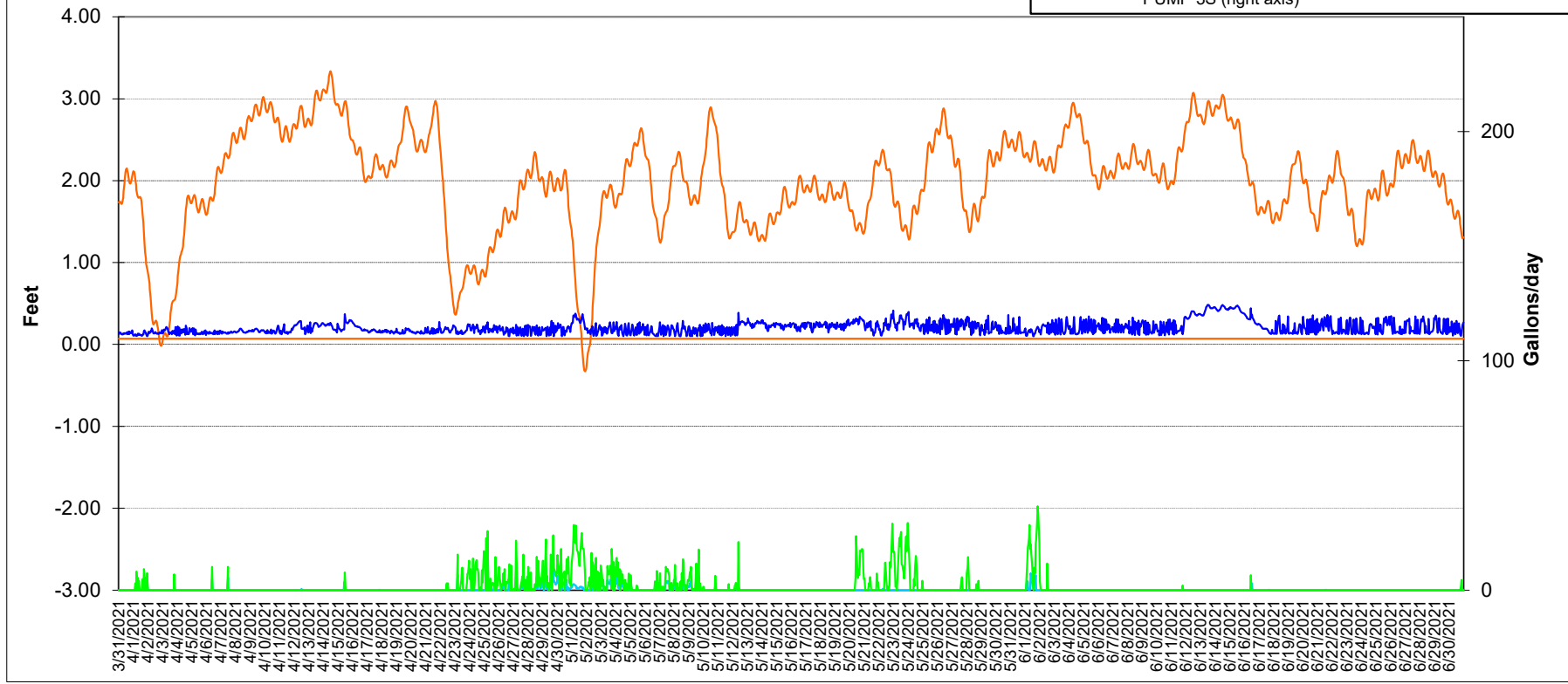
2S

End

6/30/21 11:59 PM

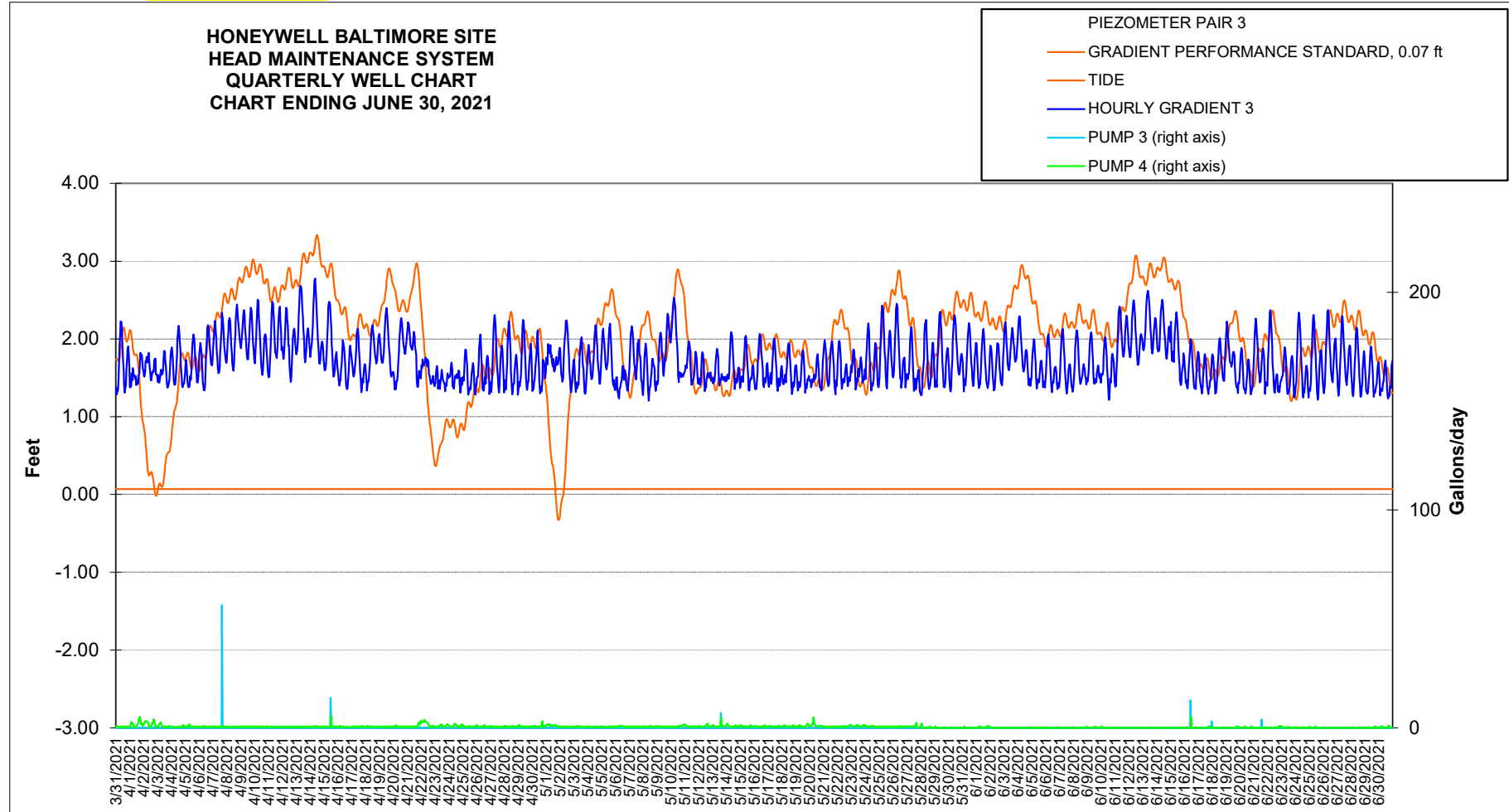
**HONEYWELL BALTIMORE SITE
HEAD MAINTENANCE SYSTEM
QUARTERLY WELL CHART
CHART ENDING JUNE 30, 2021**

- PIEZOMETER PAIR 2S
- GRADIENT PERFORMANCE STANDARD, 0.07 ft
- TIDE
- HOURLY GRADIENT 2S
- PUMP 2S (right axis)
- PUMP 3S (right axis)



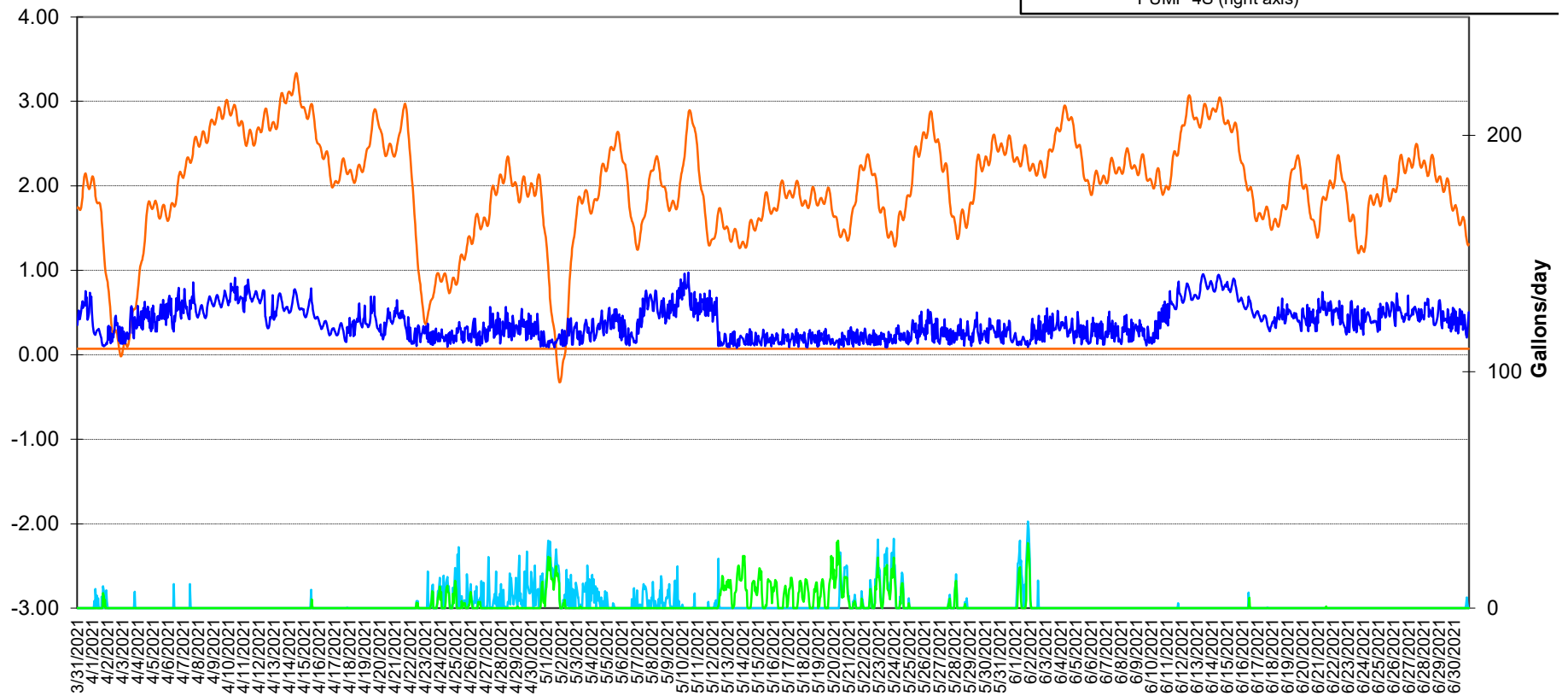
Piezometer Pair 3
End 6/30/21 11:59 PM

HONEYWELL BALTIMORE SITE HEAD MAINTENANCE SYSTEM QUARTERLY WELL CHART CHART ENDING JUNE 30, 2021



**HONEYWELL BALTIMORE SITE
HEAD MAINTENANCE SYSTEM
QUARTERLY WELL CHART
CHART ENDING JUNE 30, 2021**

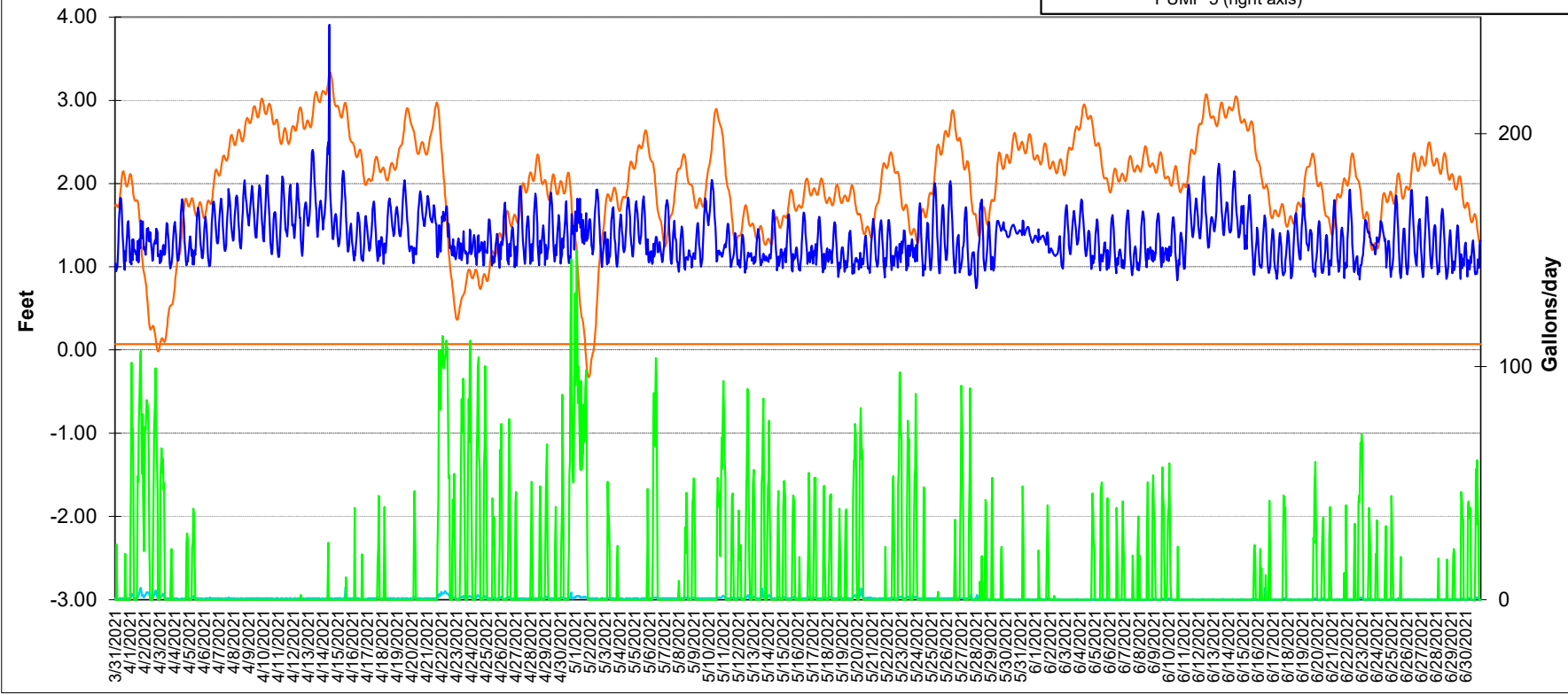
- PIEZOMETER PAIR 3S
- GRADIENT PERFORMANCE STANDARD, 0.07 ft
- TIDE
- HOURLY GRADIENT 3S
- PUMP 3S (right axis)
- PUMP 4S (right axis)



Piezometer Pair 4
End 6/30/21 11:59 PM

**HONEYWELL BALTIMORE SITE
HEAD MAINTENANCE SYSTEM
QUARTERLY WELL CHART
CHART ENDING JUNE 30, 2021**

- PIEZOMETER PAIR 4
- GRADIENT PERFORMANCE STANDARD, 0.07 ft
- TIDE
- HOURLY GRADIENT 4
- PUMP 4 (right axis)
- PUMP 5 (right axis)



Piezometer Pair

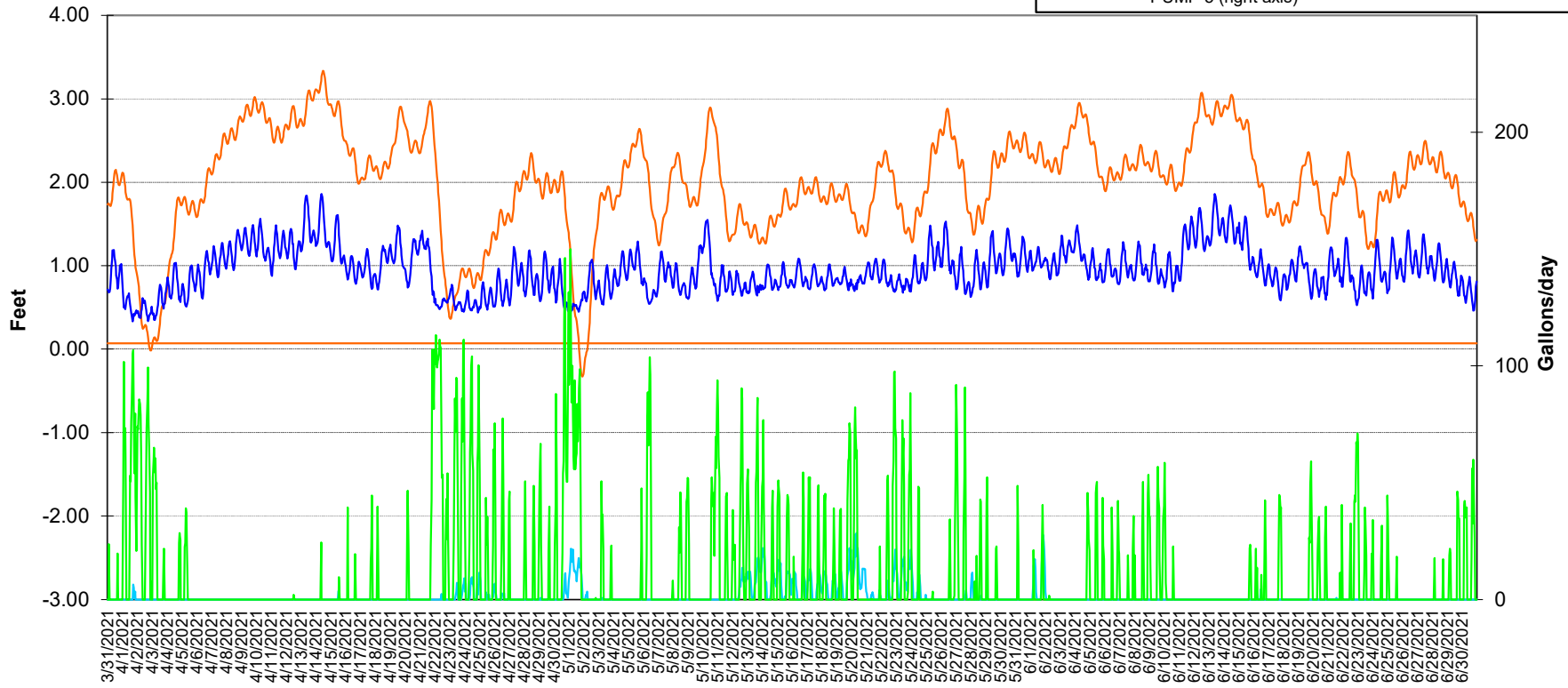
4S

End

6/30/21 11:59 PM

HONEYWELL BALTIMORE SITE HEAD MAINTENANCE SYSTEM QUARTERLY WELL CHART CHART ENDING JUNE 30, 2021

- PIEZOMETER PAIR 4S
- GRADIENT PERFORMANCE STANDARD, 0.07 ft
- TIDE
- HOURLY GRADIENT 4S
- PUMP 4S (right axis)
- PUMP 5 (right axis)



Piezometer Pair

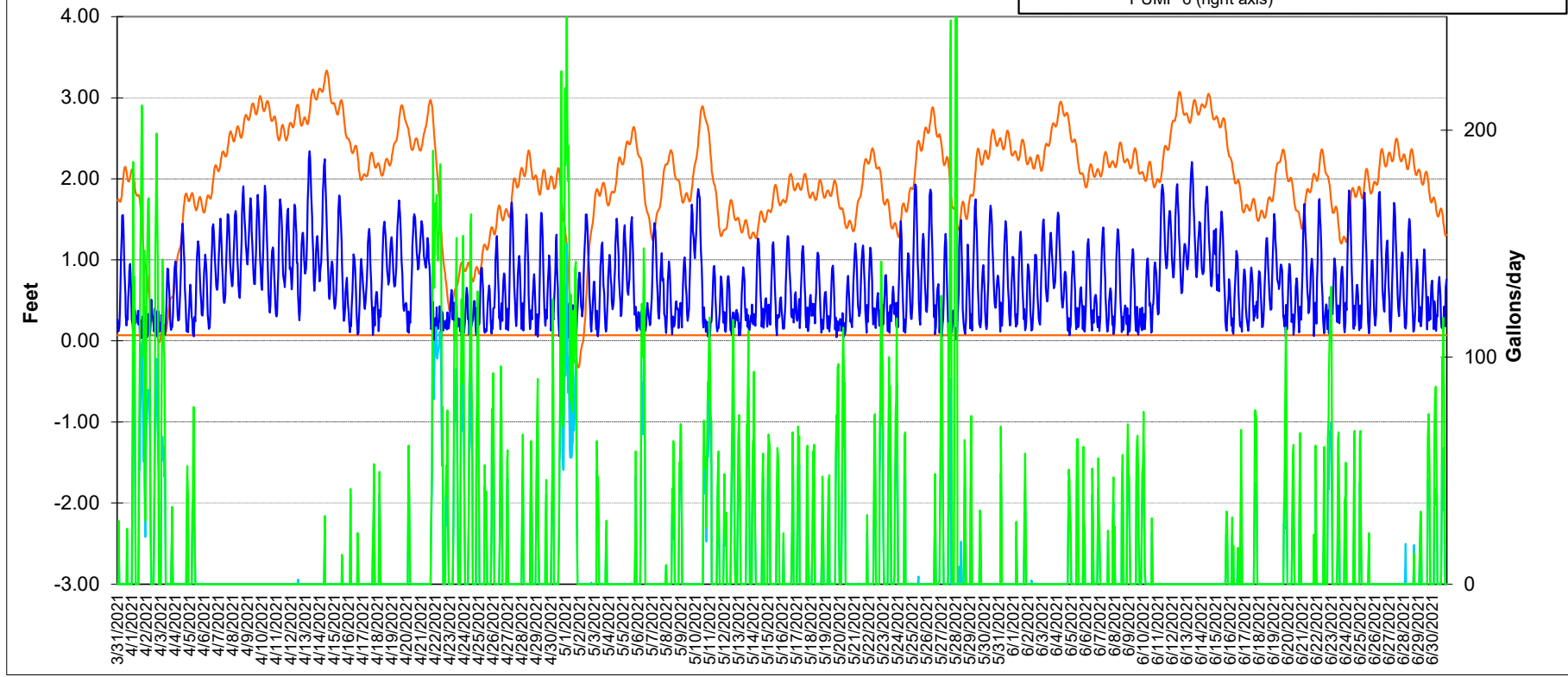
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End

6/30/21 11:59 PM

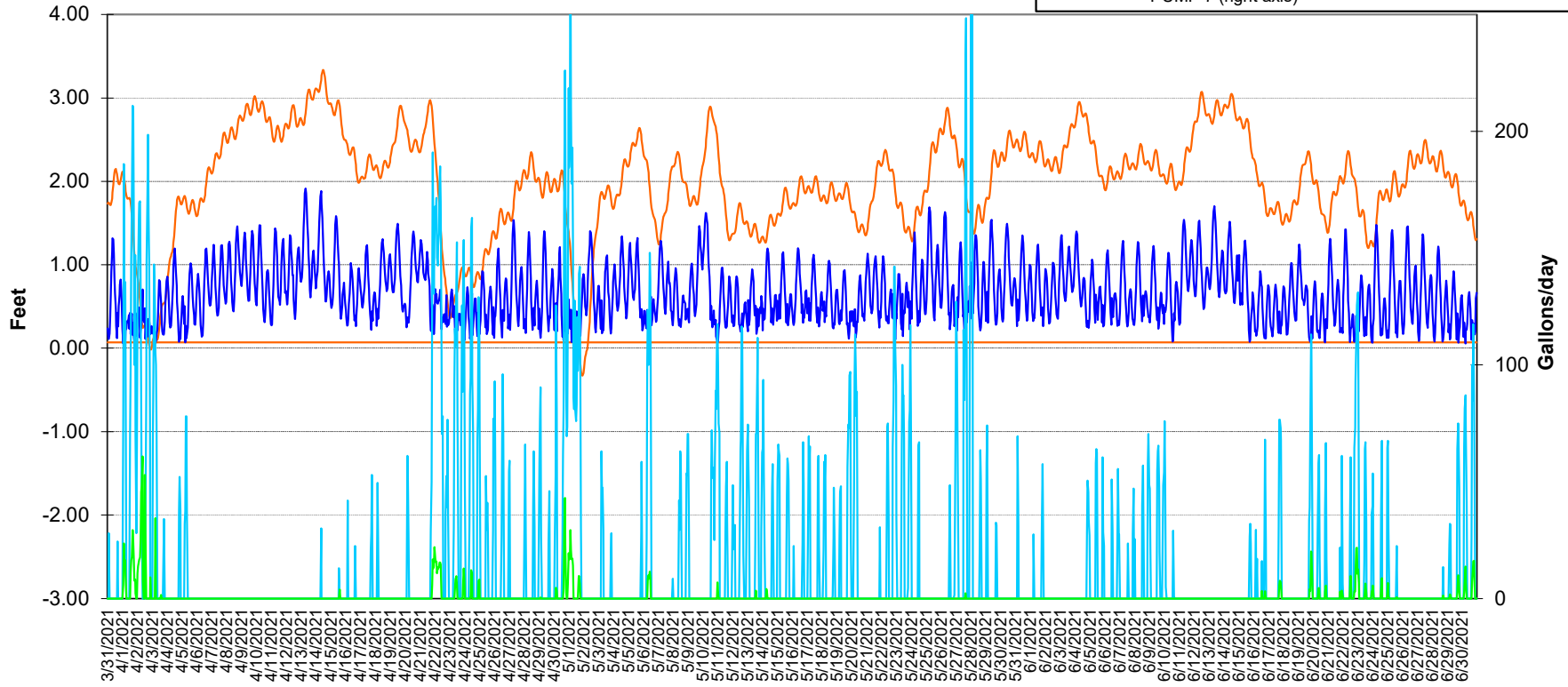
**HONEYWELL BALTIMORE SITE
HEAD MAINTENANCE SYSTEM
QUARTERLY WELL CHART
CHART ENDING JUNE 30, 2021**

- PIEZOMETER PAIR 5
- GRADIENT PERFORMANCE STANDARD, 0.07 ft
- TIDE
- HOURLY GRADIENT 5
- PUMP 5 (right axis)
- PUMP 6 (right axis)



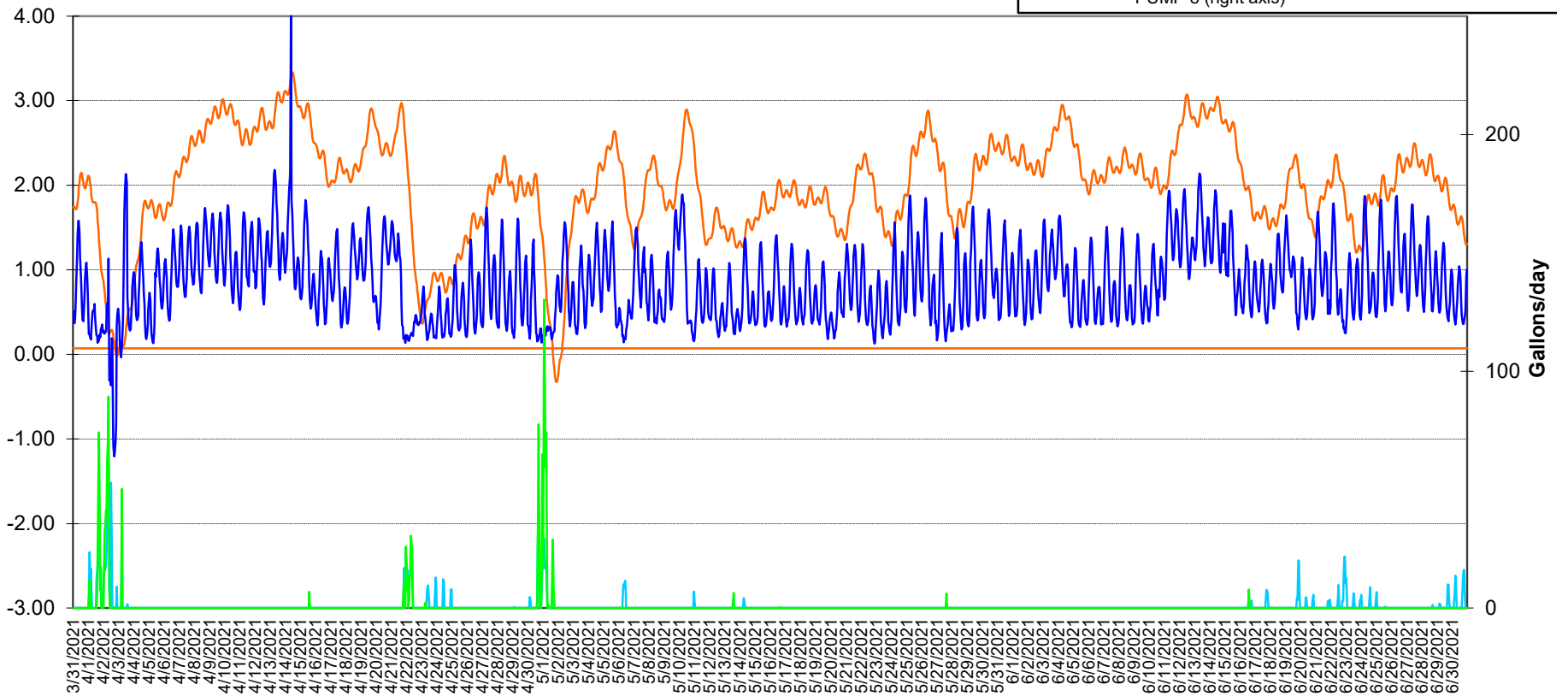
**HONEYWELL BALTIMORE SITE
HEAD MAINTENANCE SYSTEM
QUARTERLY WELL CHART
CHART ENDING JUNE 30, 2021**

- PIEZOMETER PAIR 6
- GRADIENT PERFORMANCE STANDARD, 0.07 ft
- TIDE
- HOURLY GRADIENT 6
- PUMP 6 (right axis)
- PUMP 7 (right axis)



**HONEYWELL BALTIMORE SITE
HEAD MAINTENANCE SYSTEM
QUARTERLY WELL CHART
CHART ENDING JUNE 30, 2021**

- PIEZOMETER PAIR 7
- GRADIENT PERFORMANCE STANDARD, 0.07 ft
- TIDE
- HOURLY GRADIENT 7
- PUMP 7 (right axis)
- PUMP 8 (right axis)



Piezometer Pair

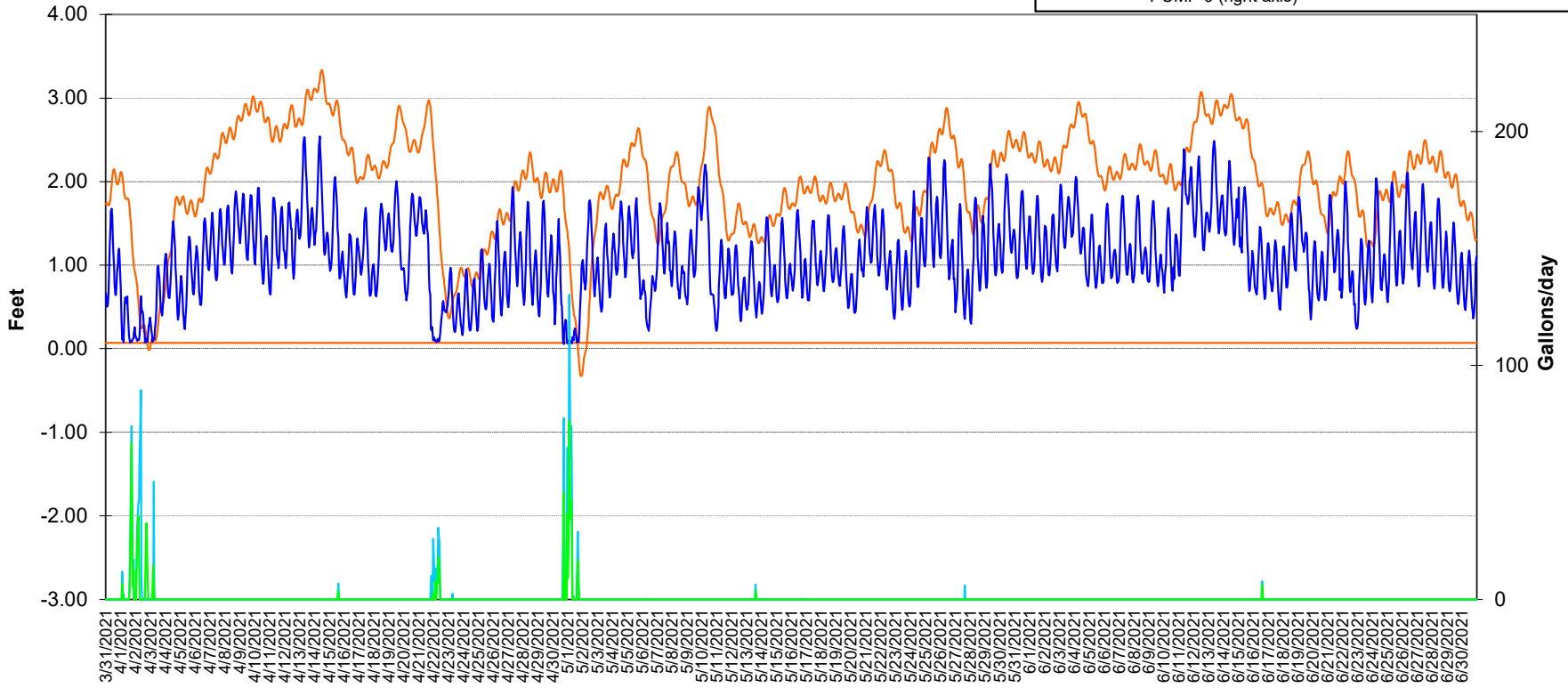
8

End

6/30/21 11:59 PM

**HONEYWELL BALTIMORE SITE
HEAD MAINTENANCE SYSTEM
QUARTERLY WELL CHART
CHART ENDING JUNE 30, 2021**

- PIEZOMETER PAIR 8
- GRADIENT PERFORMANCE STANDARD, 0.07 ft
- TIDE
- HOURLY GRADIENT 8
- PUMP 8 (right axis)
- PUMP 9 (right axis)



Piezometer Pair

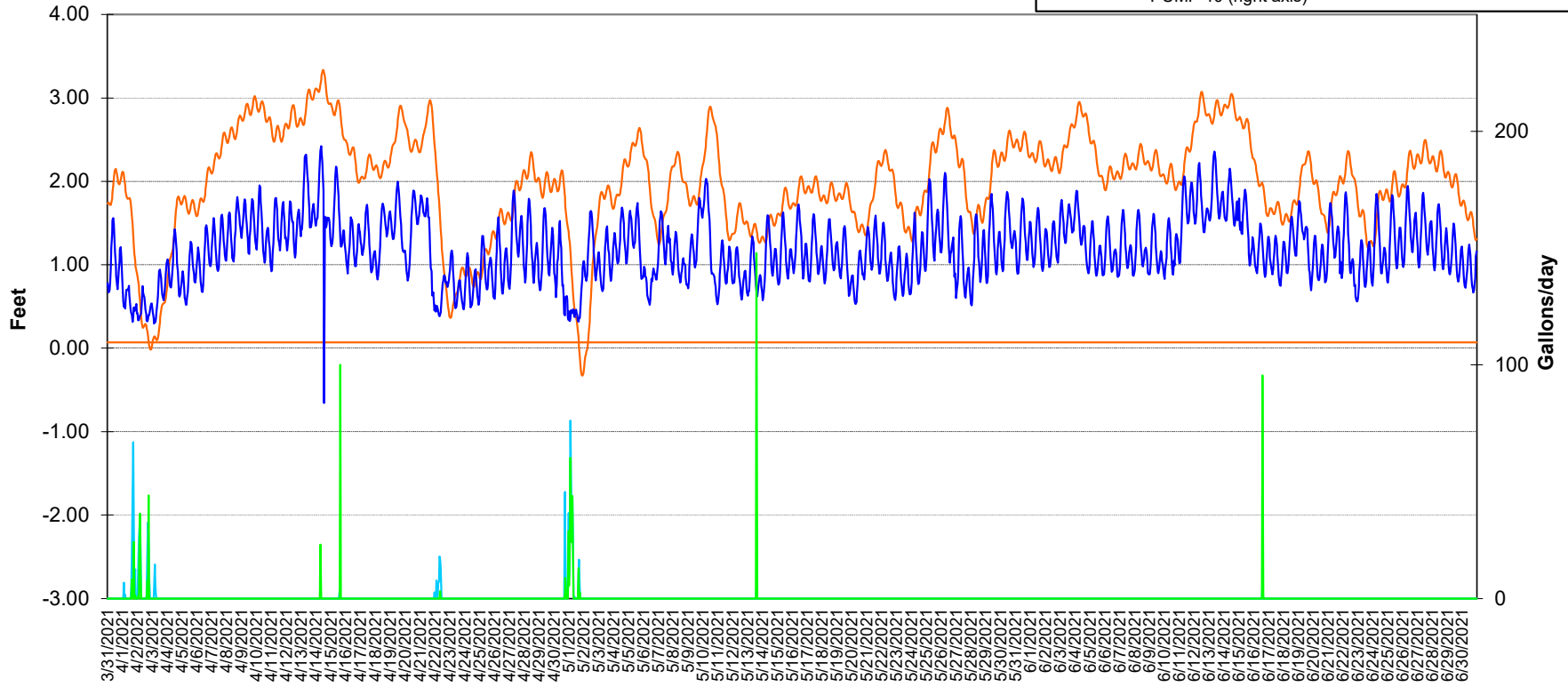
9

End

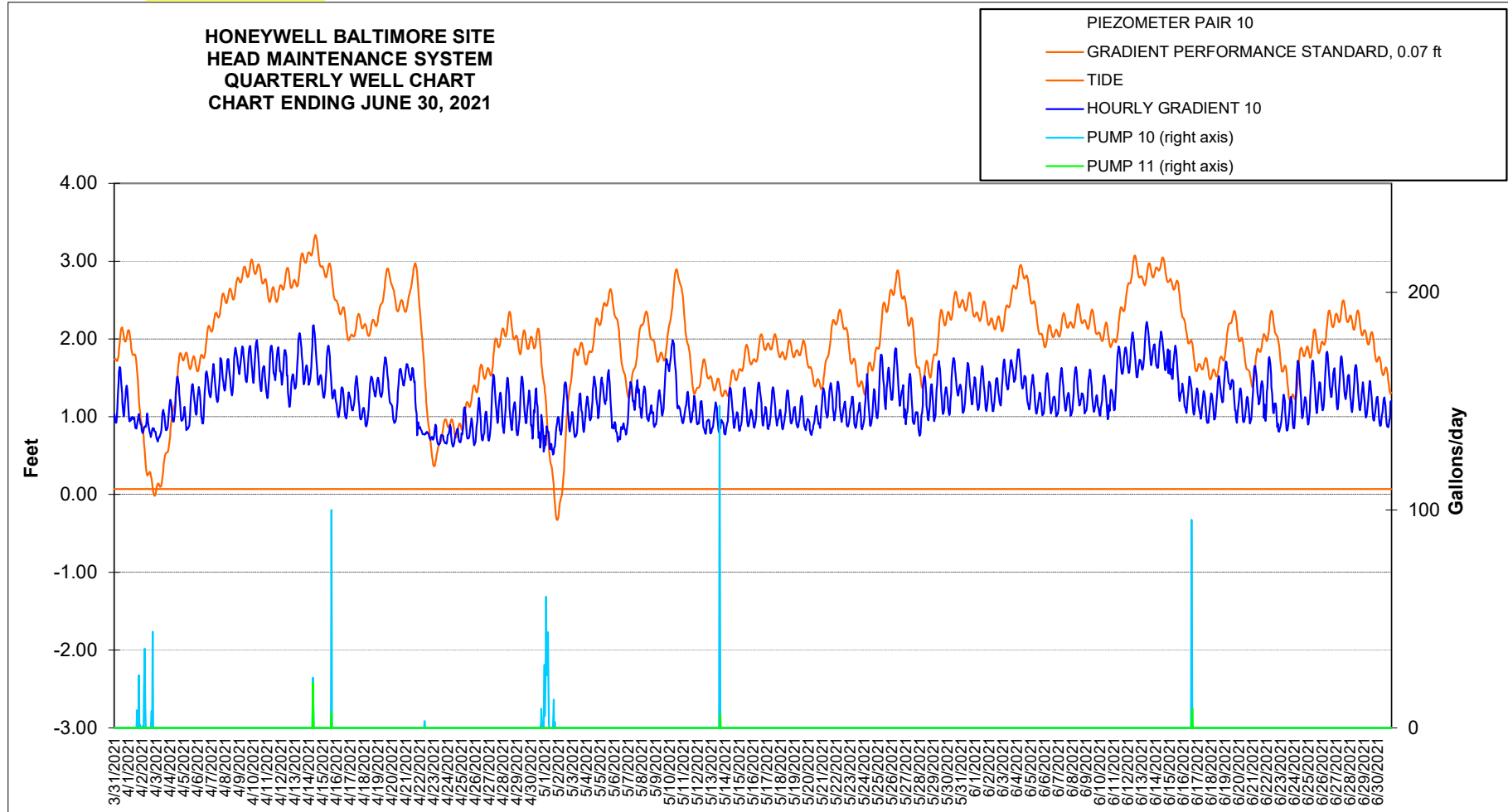
6/30/21 11:59 PM

**HONEYWELL BALTIMORE SITE
HEAD MAINTENANCE SYSTEM
QUARTERLY WELL CHART
CHART ENDING JUNE 30, 2021**

- PIEZOMETER PAIR 9
- GRADIENT PERFORMANCE STANDARD, 0.07 ft
- TIDE
- HOURLY GRADIENT 9
- PUMP 9 (right axis)
- PUMP 10 (right axis)

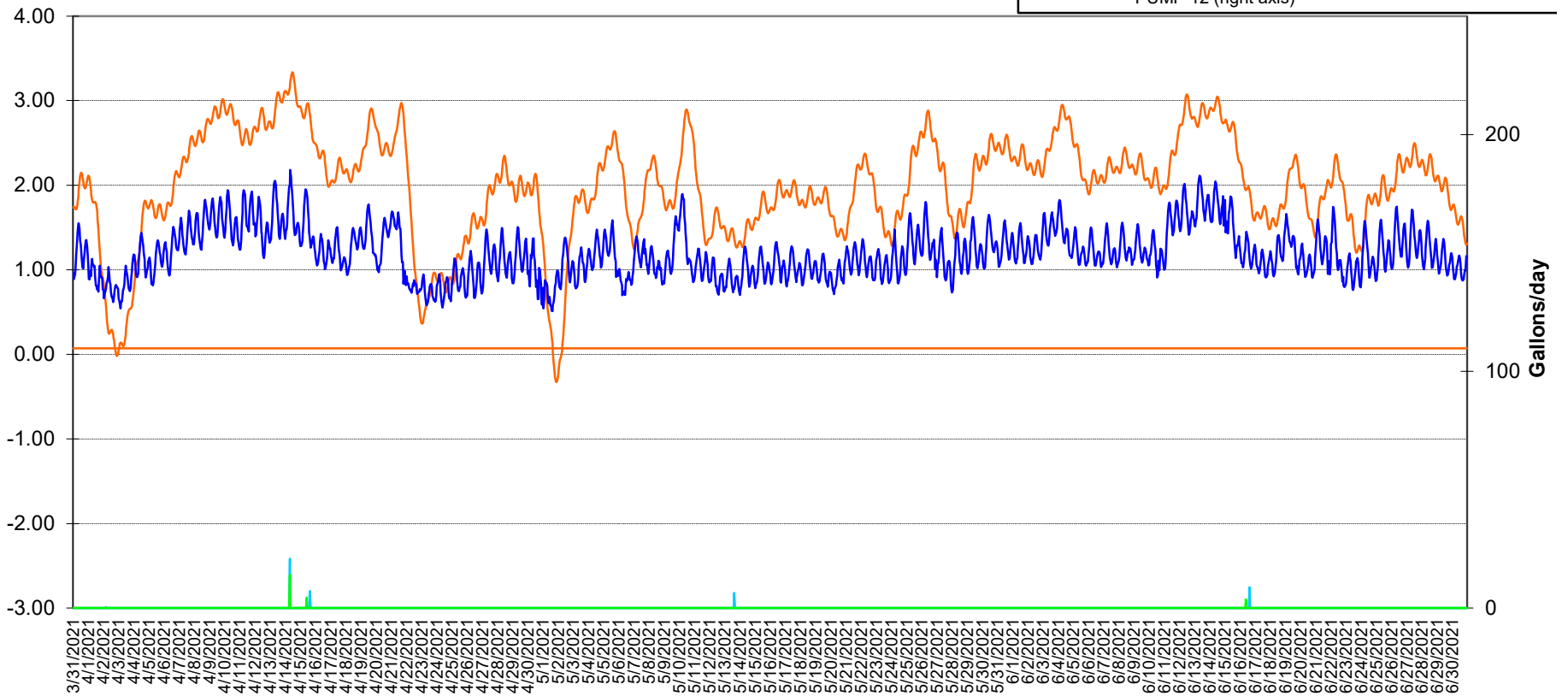


Piezometer Pair 10
End 6/30/21 11:59 PM



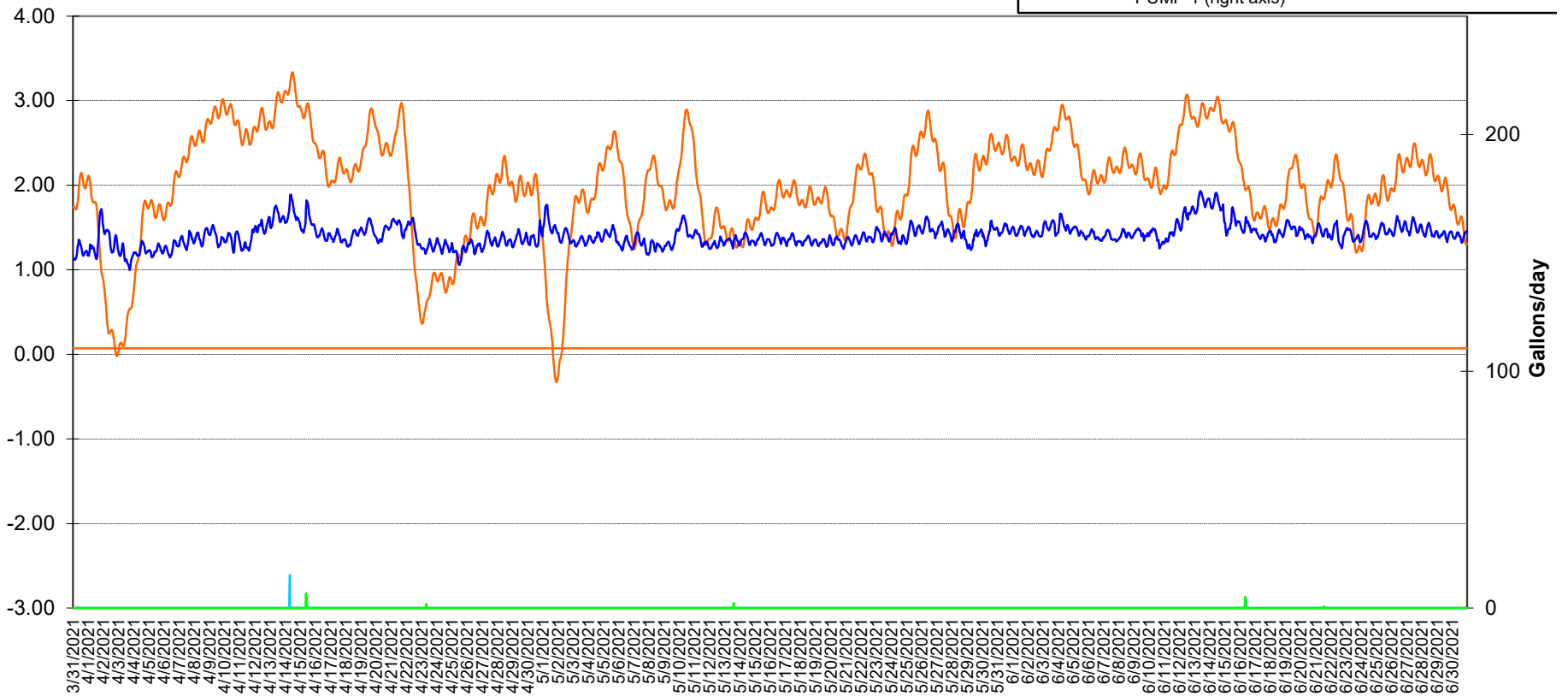
**HONEYWELL BALTIMORE SITE
HEAD MAINTENANCE SYSTEM
QUARTERLY WELL CHART
CHART ENDING JUNE 30, 2021**

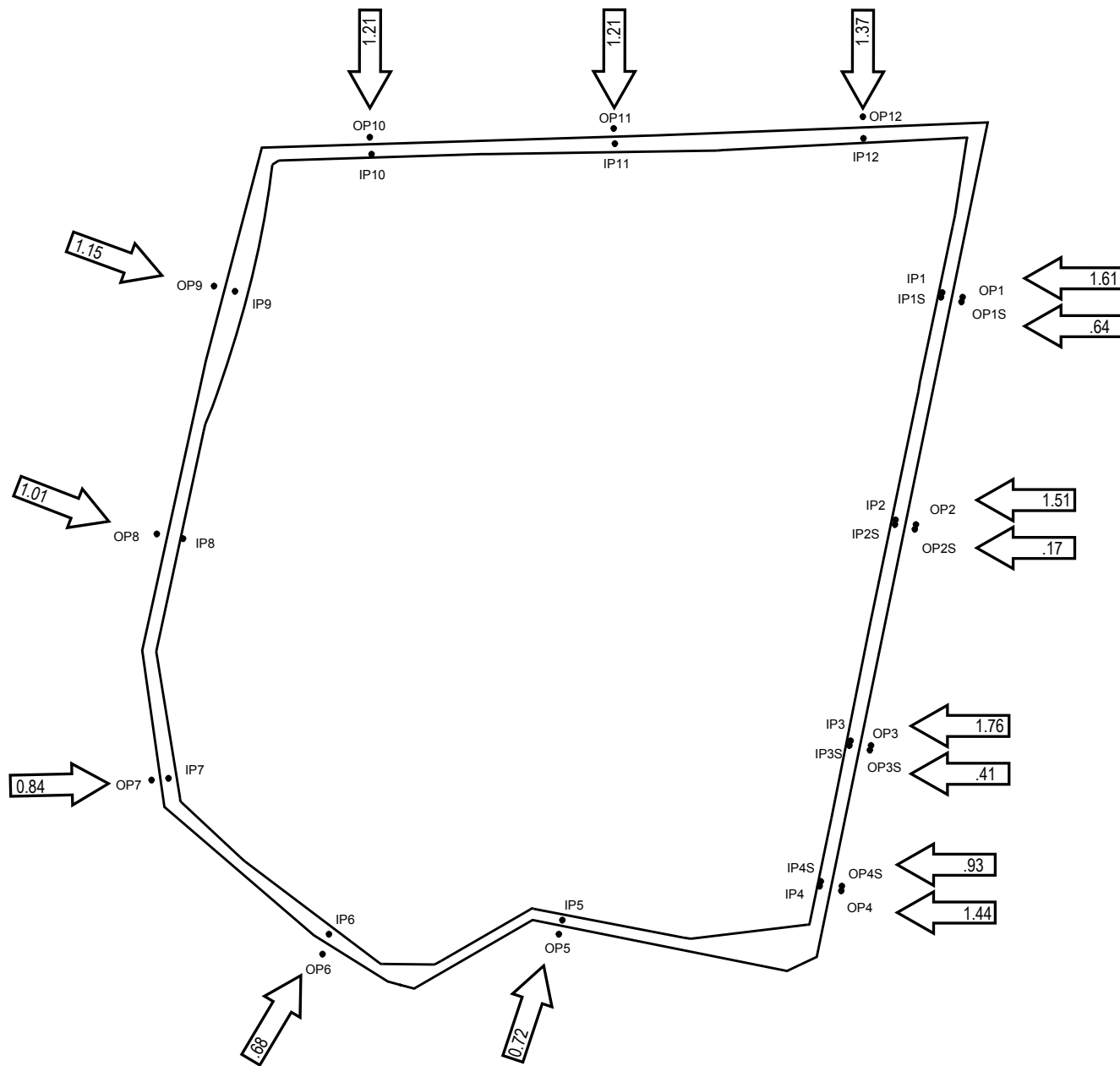
- PIEZOMETER PAIR 11
- GRADIENT PERFORMANCE STANDARD, 0.07 ft
- TIDE
- HOURLY GRADIENT 11
- PUMP 11 (right axis)
- PUMP 12 (right axis)





**HONEYWELL BALTIMORE SITE
HEAD MAINTENANCE SYSTEM
QUARTERLY WELL CHART
CHART ENDING JUNE 30, 2021**

- PIEZOMETER PAIR 12
- GRADIENT PERFORMANCE STANDARD, 0.07 ft
- TIDE
- HOURLY GRADIENT 12
- PUMP 12 (right axis)
- PUMP 1 (right axis)

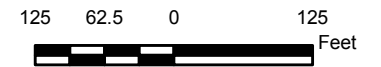




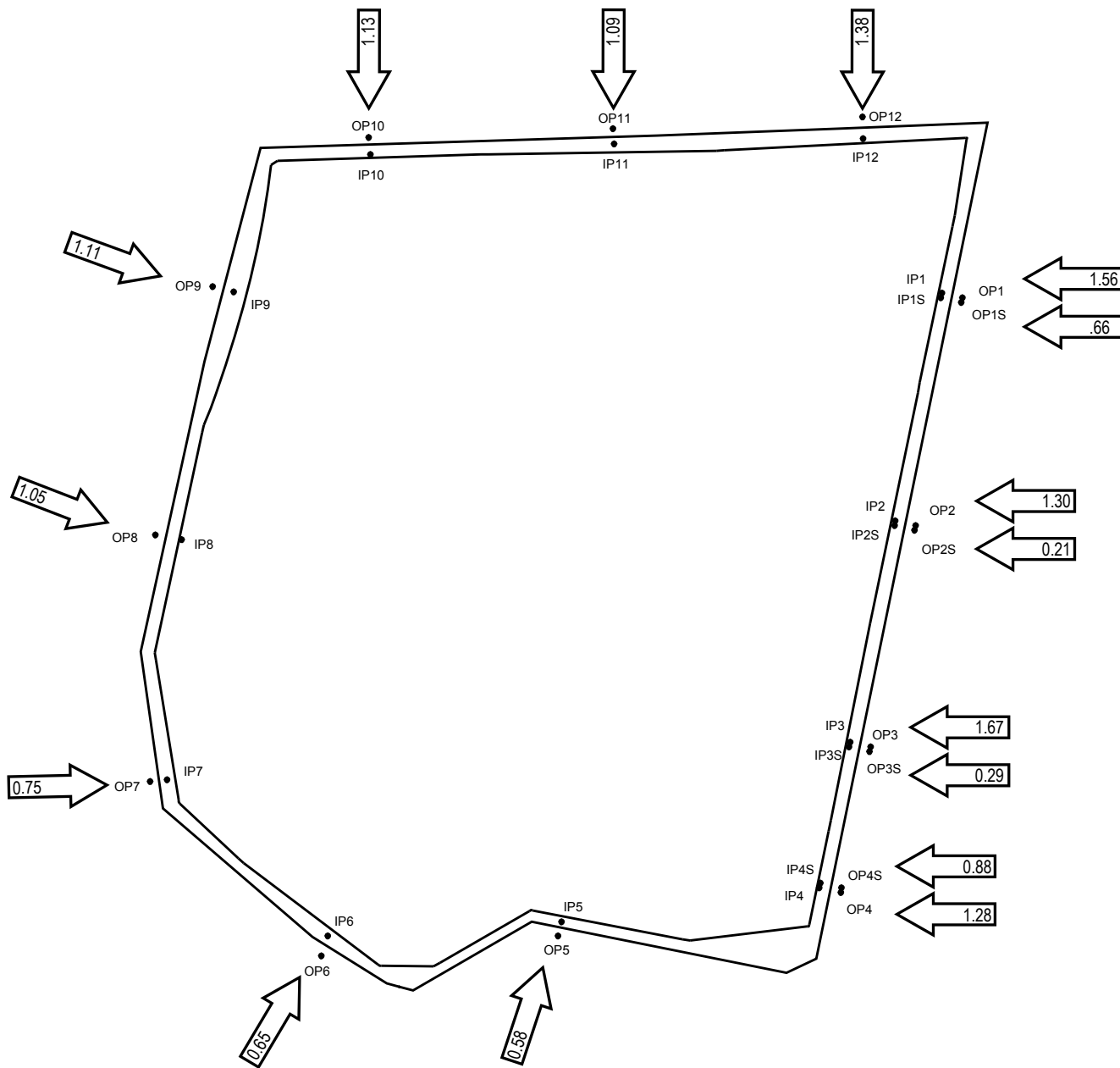
LEGEND

-  Inward Gradient (Toward Site)
-  Outward Gradient (Away from Site)

- IP - Inboard Piezometer
- OP - Outboard Piezometer
- IP_S - Inboard Piezometer - Shallow
- OP_S - Outboard Piezometer - Shallow



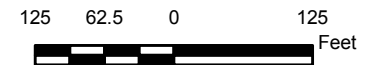
APPENDIX A
 Average of Hourly HMS
 Gradients for Month of April
 2021 Honeywell Baltimore Site



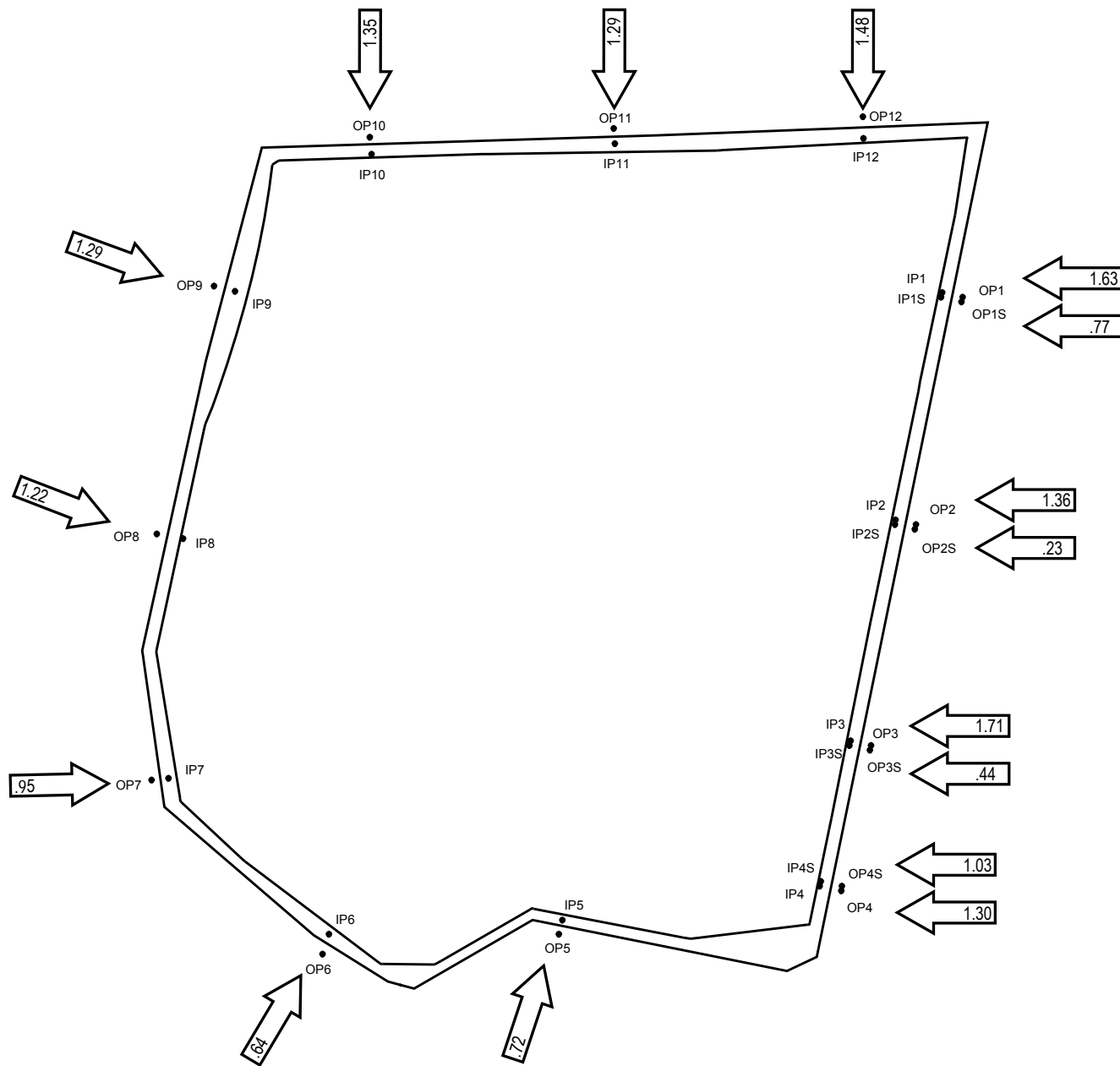
LEGEND

- Inward Gradient (Toward Site)
- Outward Gradient (Away from Site)



- IP - Inboard Piezometer
- OP - Outboard Piezometer
- IP_S - Inboard Piezometer - Shallow
- OP_S - Outboard Piezometer - Shallow



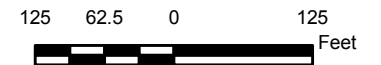
APPENDIX A
 Average of Hourly HMS
 Gradients for Month of May
 2021 Honeywell Baltimore Site



LEGEND

-  Inward Gradient (Toward Site)
-  Outward Gradient (Away from Site)

- IP - Inboard Piezometer
- OP - Outboard Piezometer
- IP_S - Inboard Piezometer - Shallow
- OP_S - Outboard Piezometer - Shallow



APPENDIX A
 Average of Hourly HMS
 Gradients for Month of June
 2021 Honeywell Baltimore Site

Appendix B

HMS Pumping Charts

- Monthly Pumping: 1999–2021
- Well Pumping: Second Quarter Comparisons: 1999–2021

Appendix C

Manual Verification Reports

- April
- May
- June

		4/7/21 to 4/8/21						
		ELEVATION, WELL CAP, FEET	FIELD READING, FEET (RADIO)	FIELD CALCULAT ED ELEVATIO N FEET	COMPUTER DISPLAY, FEET (WONDERW)	DELTA: FIELD MINUS COMPUTER, FEET	DELTA: CURRENT ONGOING AVERAGE	
IP	1	*	19.88	18.71	1.17	1.16	0.01	-0.02
OP	1	*	20.70	17.93	2.77	2.72	0.05	0.02
IP	1 S	*	20.11	18.89	1.22	1.22	0.00	0.01
OP	1 S	*	20.94	18.96	1.98	2.00	-0.02	0.07
IP	2	*	12.79	11.65	1.14	1.20	-0.06	-0.01
OP	2	*	12.86	10.40	2.46	2.55	-0.09	-0.06
IP	2 S	*	12.85	11.88	0.97	0.93	0.04	0.01
OP	2 S	*	12.92	11.87	1.05	1.03	0.01	0.02
IP	3	*	19.37	18.49	0.88	0.85	0.03	0.00
OP	3	*	19.60	17.23	2.37	2.42	-0.05	-0.01
IP	3 S	*	19.19	18.12	1.07	0.80	0.27	0.01
OP	3 S	*	19.39	18.16	1.23	1.23	0.00	0.02
IP	4	*	13.07	11.77	1.30	1.31	-0.01	-0.01
OP	4	*	13.21	10.72	2.49	2.53	-0.04	0.00
IP	4 S	*	13.25	12.32	0.93	0.93	0.00	0.01
OP	4 S	*	13.08	11.35	1.73	1.79	-0.06	0.00
TIDE			9.65	7.88	1.78	1.88	-0.11	0.06
IP	5	*	8.99	7.60	1.39	1.44	-0.05	0.03
OP	5		7.82	5.75	2.07	2.22	-0.15	-0.02
IP	6	*	8.79	7.58	1.21	1.19	0.02	0.00
OP	6	*	6.98	5.00	1.98	1.92	0.06	0.01
IP	7		8.77	7.70	1.07	1.10	-0.03	-0.03
OP	7		8.17	5.98	2.19	2.21	-0.02	-0.07
IP	8	*	10.33	9.21	1.12	1.12	0.00	0.00
OP	8	*	6.62	4.41	2.21	2.13	0.08	0.01
IP	9	*	9.57	9.00	0.57	0.57	0.00	0.01
OP	9	*	7.90	6.16	1.74	1.63	0.11	0.00
IP	10	*	8.46	7.60	0.86	0.81	0.05	0.01
OP	10	*	6.48	4.48	2.00	2.11	-0.11	-0.01
IP	11	*	18.47	17.38	1.09	1.05	0.04	0.00
OP	11	*	17.57	15.40	2.17	2.25	-0.08	0.00
IP	12	*	11.39	10.20	1.19	1.27	-0.08	0.02
OP	12	*	11.18	8.65	2.53	2.52	0.01	0.01
DUPLICATE READINGS(TAKE FIVE DUPLICATE READINGS LIST WELL IDENTIFIER AND READING)								
IP	10			7.60		0		
IP	8			9.21		0		
OP	1 S			18.96		0		
IP	12			10.20		0		
IP	11			17.38		0		
Cvr'd Slip			11.86	11.00	0.86			
Gas Vent			18.92	8.00	10.92			

Note: Elevations based on Stantec survey 2019

** Denotes readings are taken from the PVC casing rather than the steel outer cas

		5/7/2021						
		ELEVATION, WELL CAP, FEET	FIELD READING, FEET (RADIO)	FIELD CALCULAT ED ELEVATIO N FEET	COMPUTER DISPLAY, FEET (WONDERW)	DELTA: FIELD MINUS COMPUTER, FEET	DELTA: CURRENT ONGOING AVERAGE	
IP	1	*	19.88	18.73	1.15	1.14	0.01	-0.02
OP	1	*	20.70	18.06	2.64	2.66	-0.02	0.02
IP	1 S	*	20.11	18.90	1.21	1.17	0.04	0.01
OP	1 S	*	20.94	19.01	1.93	1.76	0.17	0.07
IP	2	*	12.79	11.58	1.21	1.17	0.04	-0.01
OP	2	*	12.86	10.00	2.86	2.99	-0.14	-0.06
IP	2 S	*	12.85	11.93	0.92	0.90	0.02	0.01
OP	2 S	*	12.92	11.82	1.10	1.11	-0.02	0.02
IP	3	*	19.37	18.45	0.92	0.95	-0.03	0.00
OP	3	*	19.60	17.25	2.35	2.37	-0.02	-0.01
IP	3 S	*	19.19	18.18	1.01	1.04	-0.03	0.01
OP	3 S	*	19.39	18.00	1.39	1.63	-0.24	0.02
IP	4	*	13.07	11.68	1.39	1.38	0.01	-0.01
OP	4	*	13.21	10.25	2.96	3.06	-0.10	0.00
IP	4 S	*	13.25	12.29	0.96	0.98	-0.02	0.01
OP	4 S	*	13.08	11.07	2.01	2.07	-0.06	0.00
TIDE			9.65	7.84	1.81	1.84	-0.03	0.06
IP	5	*	8.99	7.56	1.43	1.42	0.01	0.03
OP	5		7.82	5.18	2.64	2.71	-0.07	-0.02
IP	6	*	8.79	7.60	1.19	1.20	-0.01	0.00
OP	6	*	6.98	4.55	2.43	2.45	-0.02	0.01
IP	7		8.77	7.77	1.00	0.95	0.05	-0.03
OP	7		8.17	6.48	1.69	1.67	0.02	-0.07
IP	8	*	10.33	9.60	0.73	0.71	0.02	0.00
OP	8	*	6.62	5.62	1.00	1.00	0.00	0.01
IP	9	*	9.57	9.33	0.24	0.21	0.03	0.01
OP	9	*	7.90	7.08	0.82	0.84	-0.02	0.00
IP	10	*	8.46	7.57	0.89	0.84	0.05	0.01
OP	10	*	6.48	5.16	1.32	1.24	0.08	-0.01
IP	11	*	18.47	17.44	1.03	1.04	-0.01	0.00
OP	11	*	17.57	15.46	2.11	2.16	-0.05	0.00
IP	12	*	11.39	10.16	1.23	1.18	0.05	0.02
OP	12	*	11.18	8.54	2.64	2.59	0.05	0.01
DUPLICATE READINGS(TAKE FIVE DUPLICATE READINGS LIST WELL IDENTIFIER AND READING)								
IP	5		7.56		0			
OP	5		5.18		0			
IP	4		11.68		0			
OP	9		7.08		0			
IP	4		11.68		0			
Cvr'd Slip		11.86	11.00	0.86				
Gas Vent		18.92	8.82	10.10				

Note: Elevations based on Stantec survey 2019

** Denotes readings are taken from the PVC casing rather than the steel outer casing

		6/8/2021						
		ELEVATION, WELL CAP, FEET	FIELD READING, FEET (RADIO)	FIELD CALCULAT ED ELEVATIO N FEET	COMPUTER DISPLAY, FEET (WONDERW)	DELTA: FIELD MINUS COMPUTER, FEET	DELTA: CURRENT ONGOING AVERAGE	
IP	1	*	19.88	18.63	1.25	1.28	-0.03	-0.02
OP	1	*	20.70	17.76	2.94	2.92	0.02	0.02
IP	1 S	*	20.11	18.79	1.32	1.34	-0.02	0.01
OP	1 S	*	20.94	18.95	1.99	2.07	-0.08	0.07
IP	2	*	12.79	11.62	1.17	1.24	-0.07	-0.01
OP	2	*	12.86	10.35	2.51	2.57	-0.06	-0.06
IP	2 S	*	12.85	11.85	1.00	1.00	0.00	0.01
OP	2 S	*	12.92	11.59	1.33	1.33	-0.01	0.02
IP	3	*	19.37	18.44	0.93	0.97	-0.04	0.00
OP	3	*	19.60	17.14	2.46	2.52	-0.06	-0.01
IP	3 S	*	19.19	18.14	1.05	1.07	-0.02	0.01
OP	3 S	*	19.39	17.92	1.47	1.30	0.17	0.02
IP	4	*	13.07	11.74	1.33	1.33	0.00	-0.01
OP	4	*	13.21	10.79	2.42	2.42	0.00	0.00
IP	4 S	*	13.25	12.3	0.95	0.93	0.02	0.01
OP	4 S	*	13.08	11.19	1.89	1.98	-0.09	0.00
TIDE			9.65	7.75	1.90	2.16	-0.26	0.06
IP	5	*	8.99	7.62	1.37	1.54	-0.17	0.03
OP	5		7.82	5.58	2.24	2.17	0.07	-0.02
IP	6	*	8.79	7.65	1.14	1.06	0.08	0.00
OP	6	*	6.98	5.61	1.37	1.40	-0.03	0.01
IP	7		8.77	7.68	1.09	1.11	-0.02	-0.03
OP	7		8.17	5.9	2.27	2.22	0.05	-0.07
IP	8	*	10.33	9.13	1.20	1.12	0.08	0.00
OP	8	*	6.62	4.02	2.60	2.61	-0.01	0.01
IP	9	*	9.57	8.92	0.65	0.67	-0.02	0.01
OP	9	*	7.90	5.88	2.02	2.06	-0.04	0.00
IP	10	*	8.46	7.54	0.92	1.00	-0.08	0.01
OP	10	*	6.48	4.32	2.16	2.30	-0.14	-0.01
IP	11	*	18.47	17.33	1.14	1.12	0.02	0.00
OP	11	*	17.57	15.19	2.38	2.47	-0.09	0.00
IP	12	*	11.39	10.12	1.27	1.30	-0.03	0.02
OP	12	*	11.18	8.45	2.73	2.76	-0.03	0.01
DUPLICATE READINGS(TAKE FIVE DUPLICATE READINGS LIST WELL IDENTIFIER AND READING)								
OP	1		12.3		0			
OP	12		7.65		0			
OP	2		7.68		0			
OP	7		9.13		0			
IP	1 S		18.44		0			
Cvr'd Slip		11.86	10.88	0.98				
Gas Vent		18.92	8.80	10.12				

Note: Elevations based on Stantec survey 2019

** Denotes readings are taken from the PVC casing rather than the steel outer casing

Appendix C

Manual Verification Gradient Review

Second Quarter 2021

	Gradient 1	Gradient 1S	Gradient 2	Gradient 2S	Gradient 3	Gradient 3S	Gradient 4	Gradient 4S	Gradient 5	Gradient 6	Gradient 7	Gradient 8	Gradient 9	Gradient 10	Gradient 11	Gradient 12
April																
Average	1.56	0.64	1.47	0.17	1.73	0.46	1.39	0.89	0.72	0.63	0.83	0.96	1.05	1.20	1.17	1.26
Max	1.61	0.67	1.53	0.17	1.79	0.52	1.46	0.99	0.81	0.70	0.92	1.07	1.16	1.30	1.28	1.37
Min	1.51	0.60	1.37	0.16	1.61	0.41	1.26	0.74	0.61	0.53	0.70	0.78	0.88	1.02	1.01	1.13
Delta Manual Verification	0.04	-0.02	-0.03	-0.02	-0.08	-0.27	-0.03	-0.06	-0.10	0.04	0.02	0.08	0.11	-0.16	-0.12	0.09
Value plus 0.072	0.11	0.09	0.11	0.10	0.15	0.34	0.10	0.13	0.17	0.11	0.09	0.15	0.18	0.23	0.19	0.16
Gradient Greater Than Variance	1.40	0.50	1.26	0.07	1.45	0.06	1.16	0.61	0.44	0.41	0.61	0.63	0.70	0.79	0.82	0.97
May																
Average	1.59	0.63	1.41	0.19	1.69	0.34	1.36	0.87	0.63	0.65	0.77	1.00	1.12	1.12	1.11	1.38
Max	1.63	0.66	1.54	0.21	1.78	0.40	1.46	0.96	0.76	0.72	0.89	1.08	1.21	1.22	1.22	1.40
Min	1.55	0.62	1.30	0.17	1.63	0.29	1.28	0.79	0.53	0.58	0.67	0.90	1.04	1.02	1.01	1.34
Delta Manual Verification	-0.03	0.13	-0.17	-0.04	0.01	-0.21	-0.11	-0.04	-0.08	-0.01	-0.02	-0.02	-0.05	0.03	-0.04	0.00
Value plus 0.072	0.11	0.20	0.25	0.11	0.08	0.28	0.18	0.11	0.15	0.08	0.10	0.09	0.12	0.10	0.11	0.07
Gradient Greater Than Variance	1.44	0.42	1.05	0.07	1.55	0.01	1.10	0.68	0.38	0.50	0.58	0.81	0.91	0.92	0.90	1.27
June																
Average	1.60	0.73	1.32	0.23	1.70	0.34	1.30	1.00	0.66	0.68	0.86	1.20	1.23	1.28	1.23	1.44
Max	1.64	0.77	1.37	0.25	1.74	0.44	1.33	1.05	0.74	0.72	0.96	1.27	1.31	1.36	1.30	1.48
Min	1.55	0.66	1.26	0.21	1.65	0.24	1.25	0.89	0.57	0.64	0.75	1.08	1.13	1.14	1.10	1.38
Delta Manual Verification	0.05	-0.06	0.01	-0.01	-0.02	0.19	0.00	-0.11	0.24	-0.11	0.08	-0.09	-0.02	-0.06	-0.11	0.00
Value plus 0.072	0.12	0.13	0.08	0.08	0.09	0.26	0.07	0.18	0.31	0.18	0.15	0.16	0.09	0.13	0.18	0.07
Gradient Greater Than Variance	1.43	0.53	1.19	0.13	1.56	-0.02	1.17	0.72	0.26	0.46	0.60	0.92	1.04	1.01	0.92	1.30