Baltimore Inner Harbor Environmental Media Monitoring Plan Quarterly Report No. 95 Second Quarter 2013

Prepared for

Honeywell International Inc.

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CH2MHILL®

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Acronyms and Abbreviations

EMMP Environmental Media Monitoring Plan

EPA U.S. Environmental Protection Agency

MDE Maryland Department of the Environment

MES Maryland Environmental Services

ppb parts per billion

Site Honeywell Baltimore Inner Harbor Site

SSMP Surface Soil Monitoring Plan

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Introduction

1.1 Purpose

This document represents the partial fulfillment 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) on September 29, 1989. Specifically, this document satisfies Section V.3 of the Consent Decree, Exhibit 4 (RCRA Correction Action Plan Task XV.A.9). This section requires that a progress report be submitted every calendar quarter during the life of the Consent Decree. This report provides the data required by the Environmental Media Monitoring Program, as set forth in the Environmental Media Monitoring Plan (EMMP) and the Surface Soil Monitoring Plan (SSMP), as submitted to MDE and EPA.

This report summarizes the data collected during the second quarter of 2013.

1.2 Scope of Work

The scope of work outlined in the EMMP 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 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 SMMP 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 the associated quarterly report.

1.3 Sampling Conducted this Quarter

Surface water samples were collected during the second quarter 2013, as well as during the first quarter of 2013. Appendix A provides data associated with sampling during the first quarter; results for the second quarter will be provided in the third quarter 2013 report. The surface water sample results for the first quarter 2013 were validated by Critigen, and the validation report for this event is provided in Appendix D. All data quality objectives were met for surface water samples collected during the first quarter of 2013.

Groundwater samples were collected during the second quarter of 2013. Appendix B provides data associated with the sampling event. The groundwater sample results for the second quarter 2013 were validated by Critigen, and the validation report is provided in Appendix D. All data quality objectives were met for groundwater samples collected during the second quarter of 2013.

Drainage layer samples were collected during the second quarter of 2013. Appendix C provides data associated with the sampling event. The drainage layer sample results for the second quarter 2013 were validated by Critigen, and the validation report is provided in Appendix C. All data quality objectives were met for drainage layer samples collected during the second quarter of 2013.

1.4 Progress Report Organization

Progress reports prepared in accordance with the Consent Decree are organized by medium. The media section included in this document provides a summary of methodology, the current quarter's sampling plan, and a summary of results. Also provided in the medium section are a discussion of the sampling event; explanations for any deviations

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from the EMMP or SSMP procedures; data summaries; and discussion of the data, quality control results, and pertinent data trends. Raw data and chain-of-custody records are provided in Appendixes A through C.

This progress report describes the surface water, groundwater and drainage layer monitoring performed during the second quarter of 2013.

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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 first quarter of 2013 and second quarter of 2013 was performed by Maryland Environmental Services (MES) at all 20 sampling locations on March 8, 2013, and on May 6, 2013, respectively. The surface water sampling locations are shown in Figure 2-1 (at the end of this section). Results for the surface water samples collected on March 8, 2013, are included in this report. Results of the analysis of the surface water samples collected on May 6, 2013, will be reported in the third quarter 2013 report (October 10, 2013). 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 March 2013, 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

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• 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 in surface water reported for second quarter 2013 (first quarter 2013 results) are similar to the analytical values reported in first quarter 2013 (fourth quarter 2012 results). 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.

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	Percent of Average	Table 2- or Actual Surface Wate	1 r Results Below Specific Cri	iteria
Sample Event	Performance Standard Actual Concentration < 50 ppb	Fresh Water Chronic Exposure Level Actual Concentration <11 ppb	Analytical Detection Limit† Actual Concentration <10 ppb	Method Detection Limit† Actual Concentration <1.1 ppb
March	100%	100%	100%	91%

[†] The Analytical Detection Limit as determined by the Laboratory QC is 1.1 ppb

Table 2-2 Surface Water Sampling Data per Location March 2013

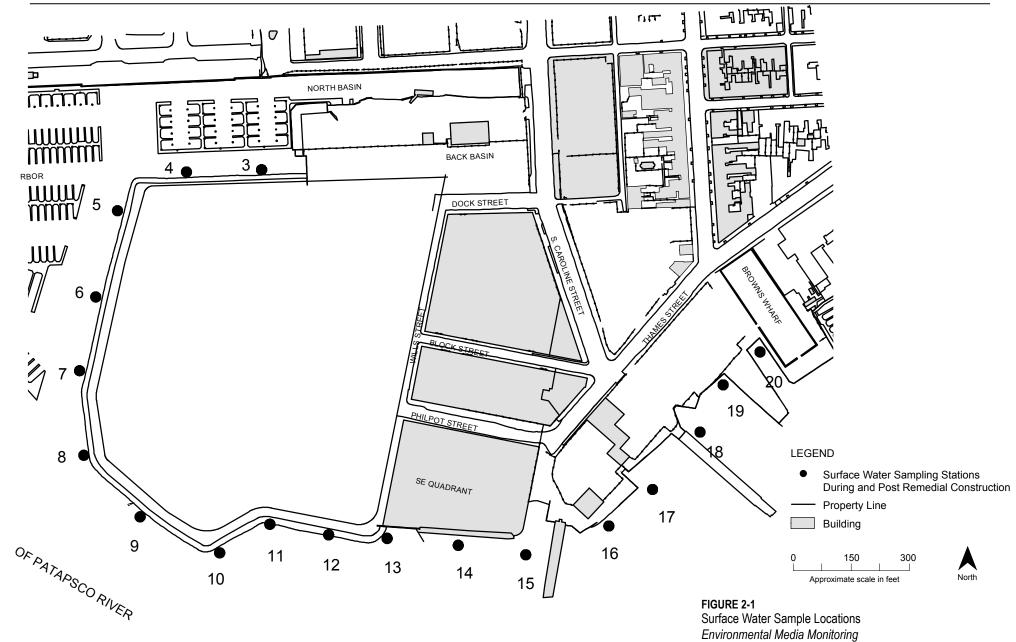
		Total Dissolved Chromium (mg/L)
Station	Detection	3/8/2013
Number	Limit	
3B	0.01	0.005 U
3T	0.01	0.0011 J
4B	0.01	0.005 U
4T	0.01	0.005 U
5B	0.01	0.005 U
5T	0.01	0.005 U *
6B	0.01	0.005 U
6T	0.01	0.005 U
7B	0.01	0.005 U
7T	0.01	0.005 U
8B	0.01	0.005 U
T8	0.01	0.005 U
9B	0.01	0.005 U
9T	0.01	0.005 U
10B	0.01	0.005 U *
10T	0.01	0.005 U
11B	0.01	0.005 U
11T	0.01	0.005 U
12B	0.01	0.005 U
12T	0.01	0.005 U
13B	0.01	0.005 U
13T	0.01	0.005 U
14B	0.01	0.005 U
14T	0.01	0.005 U
15B	0.01	0.005 U
15T	0.01	0.005 U *
16B	0.01	0.005 U
16T	0.01	0.005 U
17B	0.01	0.005 U
17T	0.01	0.005 U
18B	0.01	0.005 U
18M	0.01	0.005 U
18T	0.01	0.005 U
19B	0.01	0.005 U
19T	0.01	0.005 U
20B	0.01	0.005 U *
20T	0.01	0.005 U
Cent B	0.01	0.005 U
Cent T	0.01	0.005 U
LADY B	0.01	0.005 U
LADY T	0.01	0.0011

NOTES

- 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 and its Field Duplicate
- J Results was reported below the Report Dectection Limit
- U Result below the Method Detection Limit

Table 2-3
Surface Water Sampling Data per Sampling Station
March 2013

	Total Dissolved Chromium (mg/L)
Station	3/8/2013
Number	Station Average of All Depths
3	0.0031
4	0.0050
5	0.0050
6	0.0050
7	0.0050
8	0.0050
9	0.0050
10	0.0050
11	0.0050
12	0.0050
13	0.0050
14	0.0050
15	0.0050
16	0.005
17	0.0050
18	0.0050
19	0.0050
20	0.0050
Cent	0.0050
Lady	0.0050



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
- "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 taken on April 17, 2013. 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. There was no significant difference in chromium concentrations between the second quarter 2013 monitoring data and the total dissolved chromium concentrations detected at each respective sampling station during monitoring performed over the last 5 years. Sample results for OP-4 were more similar to the results from the second quarter of 2012 than the results from the fourth quarter of 2012. Current chromium results from this location are much lower than prior results. The analytical data report is attached as Appendix B-3.

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Bottom surface water samples collected along the site perimeter from locations proximal to historical groundwater sampling well locations, as described in Section 3.1 of this report, had total dissolved chromium levels below the analytical method detection limit.

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-3.

3.3 Historical Results

3.3.1 Chromium

The second quarter 2013 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 2013, 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. Current groundwater results are in line with the trends anticipated from the past sample analysis concentration.

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. The concentrations of cyanide detected in samples collected from each location are presented in Figures 3-10 and 3-11, respectively.

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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							
Outboard Piezometers		Apr, 2013		Apr, 2013	Oct, 2012	Apr, 2012	Oct, 2011	Jun, 2011	Apr, 2010	Oct, 2009	Apr, 2009	
11B		0.0011	0.01	0.0011	0.001	0.0011	0.001	0.003	0.003	0.003	0.003	
13B		0.0011	0.01	0.0011	0.001	0.0023	0.001	0.003	0.003	0.003	0.003	
15B		0.0011	0.01	0.0011	0.001	0.0011	0.001	0.0034	0.003	0.003	0.003	
6B		0.0011	0.01	0.0011	0.001	0.0011	0.001	0.003	0.003	0.004	0.003	
NWM-27	32.68	2450	2	2450	1910	2150	2310	1910	1840	1950	2240	
OP11	44.47	0.869	0.01	0.869	0.751	0.507	0.210	0.390	0.470	0.201	0.368	
OP2	64.31	5.77	0.01	5.77	5.14	5.20	5.82	5.79	6.31	6.36	6.05	
OP3	68.53	137	0.1	137	140	126	142	144	146	153	165	
OP4	69.14	3	0.01	3	323	17	457	504	503	533	548	
OP5	60.7	3.95	0.01	3.95	2.96	1.89	2.84	4.61	5.03	6.52	5.360	
OP7	55.42	0.002	0.01	0.002	0.002	0.012	0.010	0.005	0.006	0.005	0.003	
OP9	47.13	1900	2	1900	1870	1950	2110	2200	2040	2150	2070	

Outboard Piezometers	Oct, 2008	Apr, 2008	Oct, 2007	Apr, 2007	Oct, 2006	Apr, 2006	Oct, 2005	Apr, 2005	Oct, 2004	Apr, 2004	Oct, 2003
11B	0.003	0.0023	0.002	0.015	0.015	0.015	0.015	0.015	0.005	0.010	0.005
13B	0.003	0.0023	0.002	0.015	0.015	0.015	0.015	0.015	0.005	0.010	0.005
15B	0.003		0.002	0.015	0.015	0.015	0.015	0.015			0.005
6B	0.003	0.003	0.004	0.015	0.015	0.015	0.015	0.015	0.005	0.010	0.005
NWM-27	174	2130	699	1690	710	1540	1010	874	744	422	603
OP11	0.192	0.483	0.033	0.122	0.015	0.235	0.182	0.026	0.017	0.080	0.005
OP2	7.12	5.77	7.34	6.33	6.39	6.20	6.32	6.08	5.98	5.75	6.16
OP3	6	189	166	202	199	219	286	288	297	309	342
OP4	616	601	526	684	584	812	1020	1100	1150	1260	1290
OP5	7.720	7.66	8.1	7.8	.8	.3	8.7	11.5	11.9	11.9	13.3
OP7	0.004	0.005	0.002	0.015	0.015	0.015	0.015	0.005	0.005	0.010	0.004
OP9	5020	4800	3020	3170	3050	2790	2810	2680	2780	2510	2480

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

Outboard Piezometers	Apr, 2003	Oct, 2002	Apr, 2002	Jan, 2002	Dec, 2001	Nov, 2001	Oct, 2001	Sep, 2001	Aug, 2001	Jul, 2001	Jun, 2001
11B	0.005	0.005	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.010
13B	0.005	0.005	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.010
15B	0.005	0.005	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.010
6B	0.005	0.005	0.008	0.009	0.008	0.008	0.008	0.008	0.008	0.008	0.010
NWM-27	603	550	930	1100	690	1300	830	1000	1500	1300	1600
OP11	0.005	0.017	0.009	0.029	0.033	0.026	0.032	0.049	0.034	0.032	0.042
OP2	6.00	5.63	4.90	5.50	5.60	4.90	6.20	6.50	5.80	4.80	5.80
OP3	342	378	440	440	440	480	570	420	410	450	420
OP4	1210	1620	1800	1400	1700	2000	1700	1800	1800	1800	1900
OP5	15.4	16.9	21.0	19.5	18.5	20.0	20.5	21.0	17.5	23.5	23.0
OP7	0.006	0.005	0.008	0.008	0.008	0.008	0.012	0.008	0.008	0.008	0.010
OP9	2510	2410	2500	2200	2500	2650	2500	2600	2400	2500	2500

Outboard Piezometers	May, 2001	Apr, 2001	Mar, 2001	Feb, 2001	Jan, 2001	Dec, 2000	Nov, 2000	Oct, 2000	Sep, 2000	Aug, 2000	Jul, 2000
11B	0.010	0.010	0.011	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
13B	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
15B	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
6B	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
NWM-27	1700	1300	1500	1600	1600	1600	1700	1700	1800	1700	1600
OP11	0.031	0.010	0.050	0.014	0.012	0.015	0.022	0.011	0.010	0.011	0.010
OP2	6.00	5.75	4.90	6.20	6.10	6.00	5.90	6.10	5.85	5.90	3.15
OP3	430	460	470	450	470	480	500	490	500	510	530
OP4	1800	1900	1900	2000	2000	2100	2100	2400	2250	2400	2400
OP5	23.0	24.0	25.0	25.5	26.0	25.0	26.0	28.0	25.0	24.0	18.0
OP7	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.013	0.010	0.012
OP9	2400	2400	2400	2300	2600	2500	2400	2700	2500	2500	2400

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

Outboard Piezometers	Jun, 2000	May, 2000	Apr, 2000	Mar, 2000	Feb, 2000	Dec, 1999	Aug, 1999	May, 1999	Mar, 1999	Dec, 1998	Sep, 1998
11B	0.01	0.01	0.01	0.01	0.002						
13B	0.01	0.01	0.010125	0.0105	0.002						
15B	0.01	0.01	0.01	0.01	0.002						
6B	0.01	0.01	0.01	0.01	0.002						
NWM-27	1700	1700	1800	3600	2600	1800	2300	1900	1400	1000	
OP11	0.01	0.01	0.010	0.004	0.047	0.020	0.010	.01	0.03	0.01	2.7
OP2	3.6	3.7	5.40	8.00	4.40	7.30	6.50	1.80	2.4	2.8	4.6
OP3	540	580	570	1045	630	670	800	670	690	750	780
OP4	2400	2800	2500	3300	2300	2900	3800	2900	2000	3000	1900
OP5	34	27	33.0	47.0	44.0	42.0	31.0	59.0	45.0	58	65
OP7	0.041	0.05	0.051	0.002	0.002	0.020	.01	.01	0.060	1.600	8.600
OP9	2400	2800	2500	4500	2400	3200	2200	1800	3200	2200	2300

Outboard Piezometers	Jun, 1998	Mar, 1998	Dec, 1997
11B			
13B			
15B			
6B			
NWM-27		610	
OP11			
OP2			
OP3	890	2200	2400
OP4	2000	2500	3700
OP5	70	130	150
OP7	0.3	0.02	0.02
OP9	2800	3600	

 $\label{thm:concentrations} Table~3-2 \\$ Current and Annual Total Dissolved Chromium Concentrations in Groundwater (mg/l)

Monitoring	Elevation (ft) Top of	Current Results	Sample Detection	Last Sample Round			Average			Notes
Wells	Well Screen	ppm	Limit	Results	2013	2012	2011	2010	2009	
			ppm	ppm						
Outboard Piezometers										
OP-3	-53.5	137	0.1	140	137	133	139	145	160	4
OP-4	-57.1	2.69	0.0	323	2.7	170	457	504	548	4
OP-5	-51.3	3.955	0.01	2.96	3.96	2.43	3.10	4.82	5.94	4
OP-7	-47.6	0.0018	0.01	0.0017	ND	ND	0.0103	ND	ND	4
OP-9	-37.8	1900	2	1870	1900	1910	2045	2120	2110	4
Deep Surface Water										
SW-06	NA	0.0011	0.01	0.0011	ND	ND	ND	ND	ND	4
SW-11	NA	0.0011	0.01	0.0011	ND	ND	ND	ND	ND	4
SW-13	NA	0.0011	0.01	0.0011	ND	ND	ND	ND	ND	4
SW-15	NA	0.0011	0.01	0.0011	ND	ND	ND	ND	ND	4
Offsite Wells										
OP-2	-48.0	5.77	0.01	5.14	5.77	5.17	5.81	6.11	6.21	4
OP-11	-35.5	0.869	0.01	0.8905	0.869	0.699	0.381	0.442	0.285	4
NWM-27	-24.7	2450	2	1910	2450	2030	2270	1875	2095	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 sample
- * 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
Outboard P	iezometers						
OP-3	December,31 1980 to June,30 2013	63	6	2400	478	404	137
OP-4	December,31 1980 to June,30 2013	61	3	3800	1639	901	3
OP-5	December,31 1980 to June,30 2013	74	0.27	150	23	25	3.96
OP-7	December,31 1980 to June,30 2013	58	0.002	9	0.194	1.143	0.002
OP-9	December,31 1980 to June,30 2013	58	1800	5020	2613	618	1900
Offsite Well	<u>s</u>						
OP-2	December,31 1980 to June,30 2013	65	1.80	8.00	5.57	1.17	5.77
OP-11	December,31 1980 to June,30 2013	57	0.004	2.700	0.189	0.411	0.869
NWM-27	December,31 1980 to June,30 2013	53	174	3600	1494	651	2450

^{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	Results 110/l	Sample Detection Limit ug/l		Sample Event Dates						
Outboard Piezometers		Apr, 2013		Oct, 2012	Apr, 2012	Oct, 2011	Jun, 2011	Sep, 2010	Apr, 2010	Oct, 2009	Apr, 2009
OP2	64.31	5.00	10	5.00	5.0	5.0	5.00	11.00	23.00	5.00	5.00
OP3	68.53	5.0	10	17.0	9.5	13.00	13.0	24.0	5.0	18.0	19.00

Outboard Piezometers	Oct, 2008	Apr, 2008	Oct, 2007	Apr, 2007	Oct, 2006	Apr, 2006	Oct, 2005	Apr, 2005	Oct, 2004	Apr, 2004	Oct, 2003
OP2	5.0	5.0	5.0	10.0	10.0	10.0	10.0	10.00	10.00	10.00	5.0
OP3	12.0	25.0	9.5	26.0	22.0	10.0	35.0	17.0	34.0	20.0	30.0

Outboard Piezometers	Apr, 2003	Oct, 2002	Apr, 2002	Jan, 2002	Nov, 2001	Aug, 2001	May, 2001	Feb, 2001	Nov, 2000	Aug, 2000	May, 2000
OP2	5.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.00
OP3	36.0	40.4	24.0	15.0	47.0	42.0	18.0	37.0	10.0	41	53

Outboard Piezometers	Feb, 2000	Dec, 1999	Aug, 1999	May, 1999	Mar, 1999	Dec, 1998	Dec, 1998	Sep, 1998	Jun, 1998	Mar, 1998
OP2	10.00	5.00	5.00	5.00	5.00	5.00	5.00			
OP3	110.0	110.0	37.0	69.0	55.0	29.0	29.0	9.00	14.0	1.00

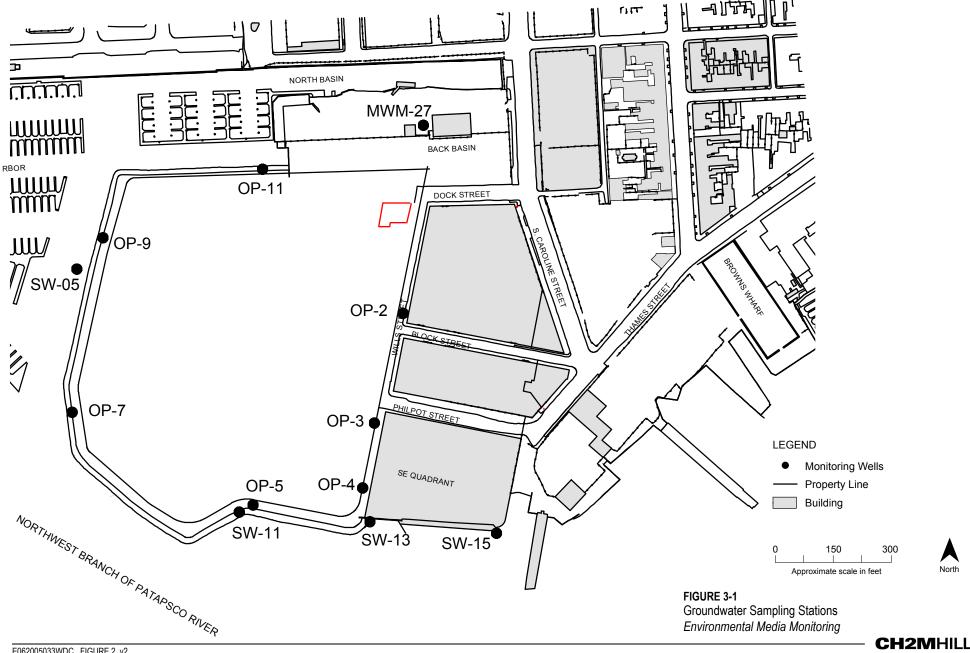


Figure 3-2
Historical Total Dissolved Chromium Concentrations in Groundwater

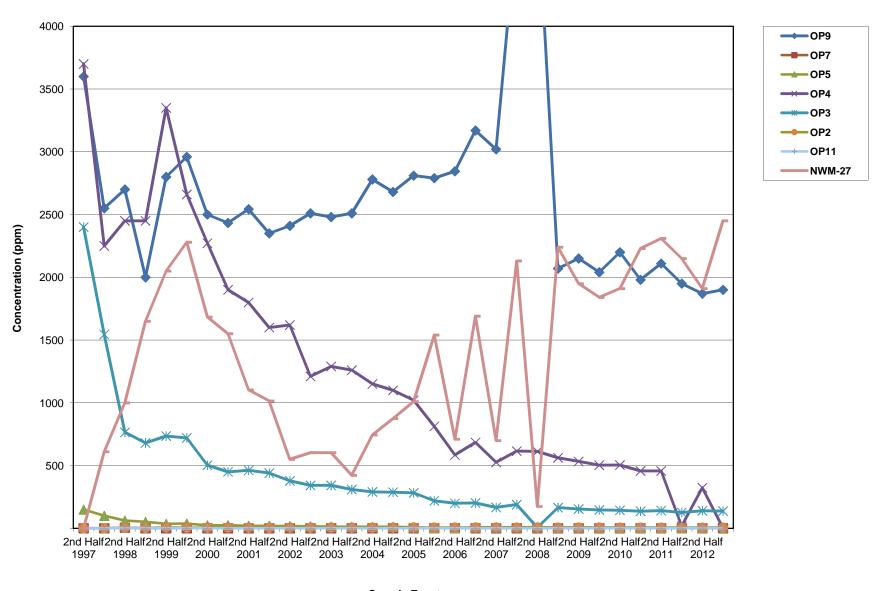


Figure 3-3
Total Dissolved Chromium Concentrations in Groundwater for OP- 3

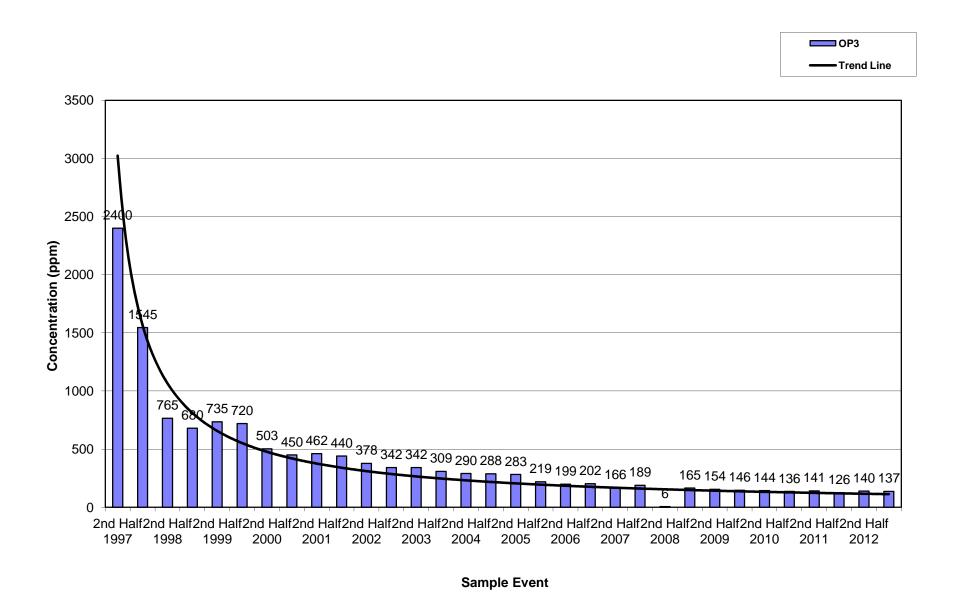


Figure 3-4
Total Dissolved Chromium Concentrations in Groundwater for OP-4

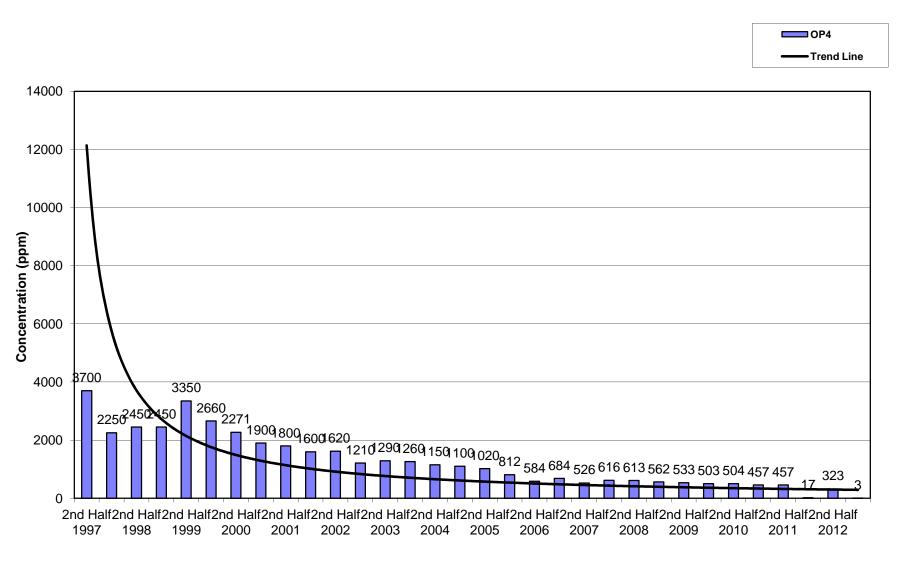


Figure 3-5
Total Dissolved Chromium Concentrations in Groundwater for OP-5

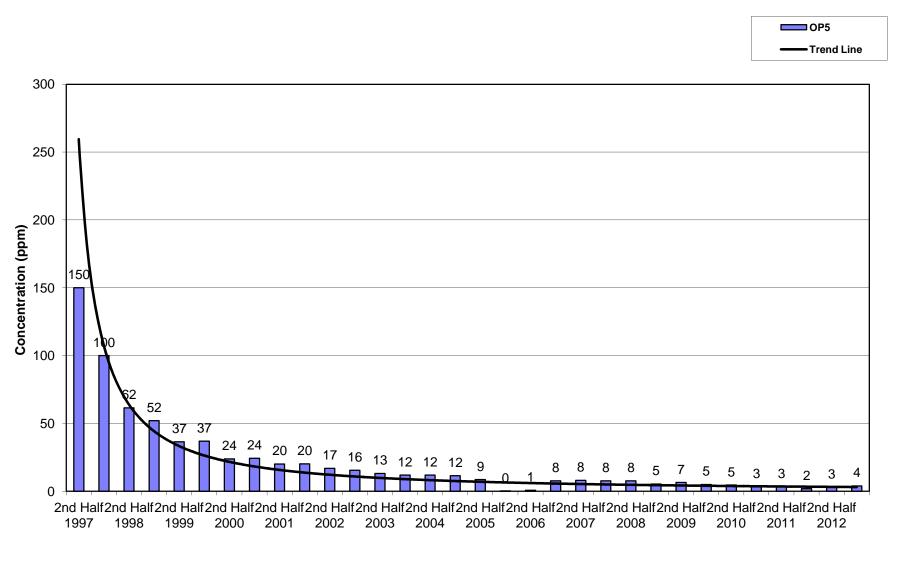


Figure 3-6
Total Dissolved Chromium Concentrations in Groundwater for OP-7

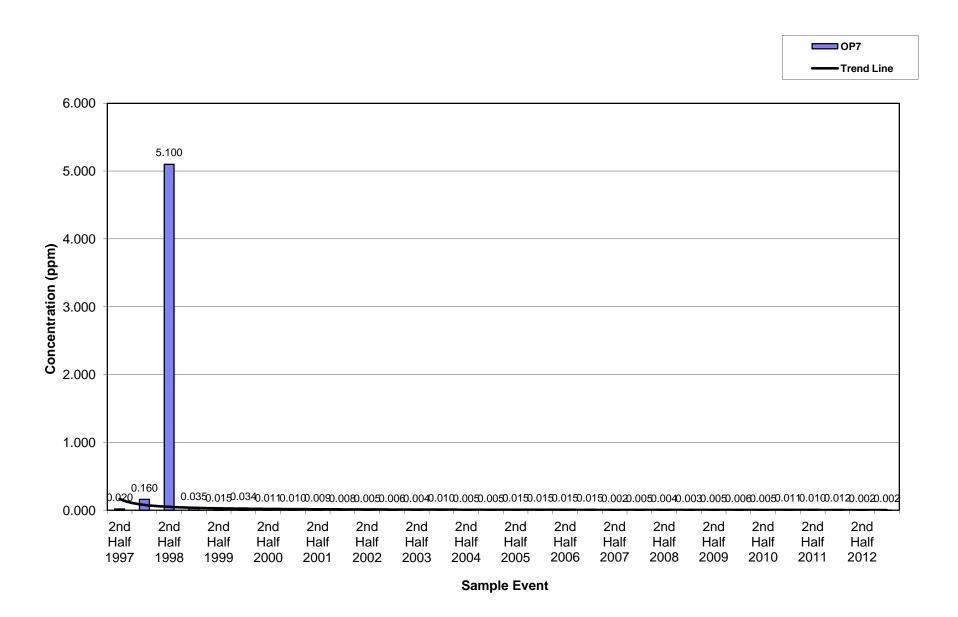


Figure 3-7
Total Dissolved Chromium Concentrations in Groundwater for OP-9

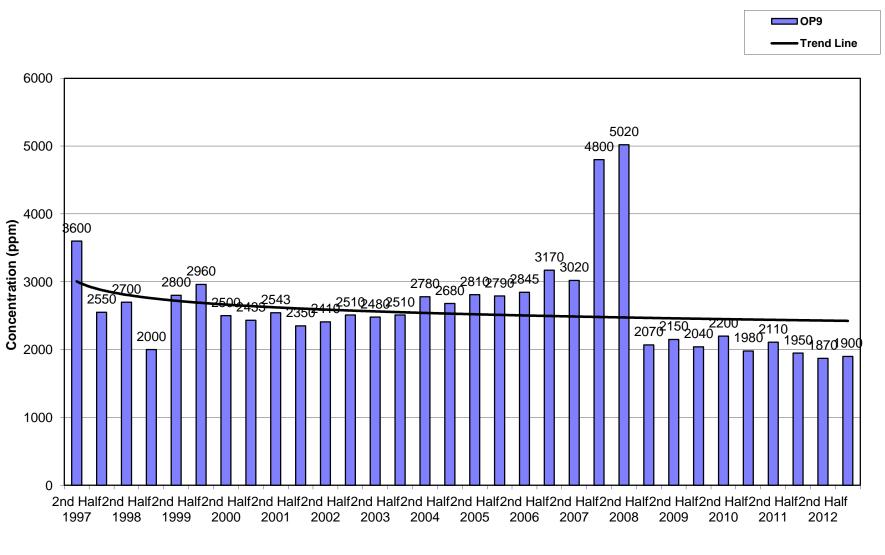


Figure 3-8
Total Dissolved Chromium Concentrations in Groundwater for OP- 2

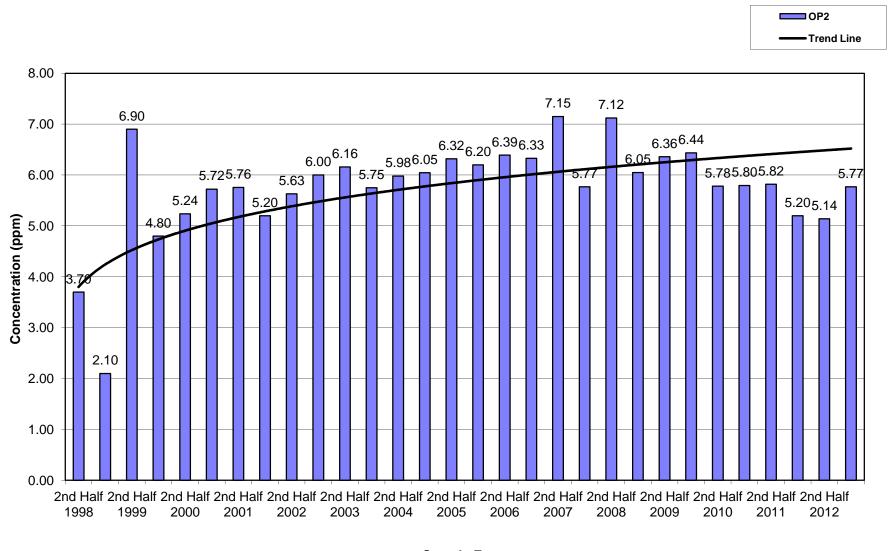


Figure 3-9
Total Dissolved Chromium Concentrations in Groundwater for OP-11

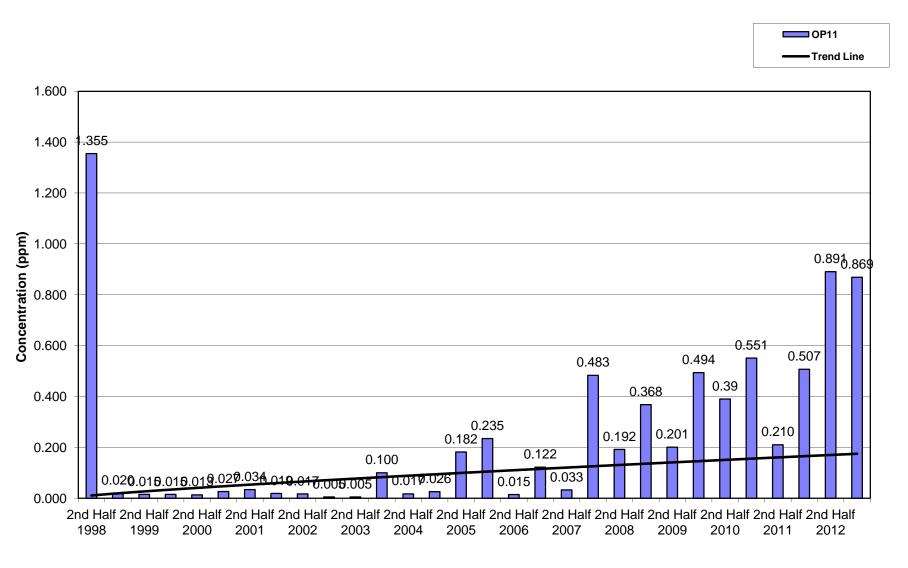


Figure 3-10 **Total Dissolved Chromium Concentrations in Groundwater for NWM-27**

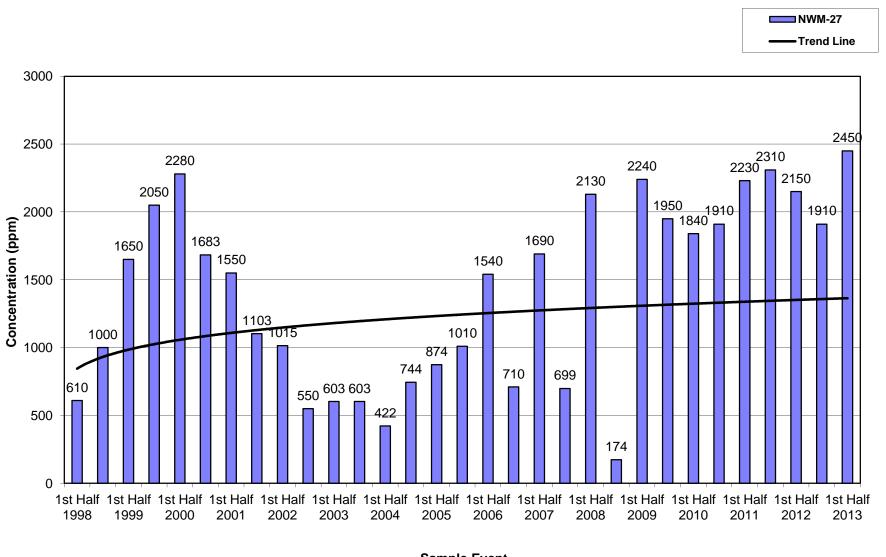


Figure 3-11
Total Dissolved Cyanide Concentrations in Groundwater OP-2

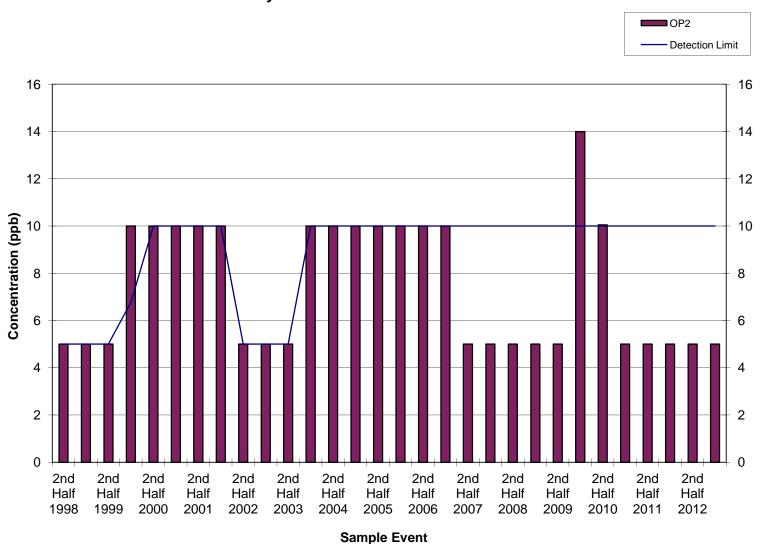
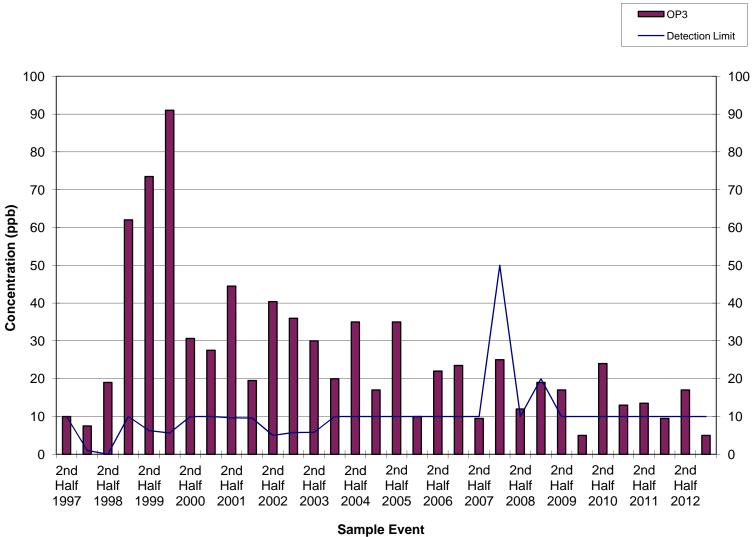


Figure 3-12 **Total Dissolved Cyanide Concentrations in Groundwater OP-3**



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 though the drainage layer and infiltration trench is one of the methods used to evaluate this performance. Four perimeter locations, depicted in Figure 4-1, are sampled for total chromium, filtered total chromium, and filtered total cyanide. Additionally, 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. Two of the sample points (SSSP1 and SSSP4) are located at the end of a perforated pipe running within a toe drain along the landward perimeter of the site. The other two points are located within an infiltration trench running along the harbor perimeter of the site.

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.

4.2 Current Quarter Results

Drainage layer samples were taken on April 24, 2013, and again on May 23, 2013. The May sample event was scheduled when the results from the April 24, 2013, were reviewed and it was noted that the reported concentration of the duplicate QA/QC did not match the parent result. It was determined that the locations should be sampled again to ensure there were no issues with the reported results. The reported QA/QC results for the second sampling event were acceptable and were validated. These results are included in this report and are attached as Appendix D. The results from the April 24 event are attached to this report as Appendix C. The results from all sampled locations were below established baseline levels. 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.

Drainage layer sample results are presented in Appendix D. The validation report for the May sampling event is included in Appendix E.

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 4-4. All total chromium results were below the sample detection limit, but concentrations above the method detection limit were reported. All results were at or below the baseline results.

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 4-4. All dissolved chromium results were below the sample detection limit, but concentrations above the method detection limit were reported. All results were at or below the baseline results.

ES062613033317WDC 4-1

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 4-4. The total dissolved cyanide results were below the sample detection limit and were at or below the baseline results.

4.3 Trend Analysis

All results were at or below the sample detection limits. The results for total chromium from SSMP2 and SSMP3, and the results for filtered total chromium from SSMP2 were below the method detection limit. All parameters are in line with baseline results. Current and historical sample results are provided in Tables 4-1 through 4-4.

ES062613033317WDC 4-2

Table 4-1
Drainage Layer Sampling Data SSMP1
Second Quarter 2013

Year	CR	CR	Cyanide	Spec.	рН	Temp.	D.O.	ORP
		(Filtered)		Cond.				
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	1	1	-	-	-
2009	0.0032	0.0095	5	0.704	1	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 2013

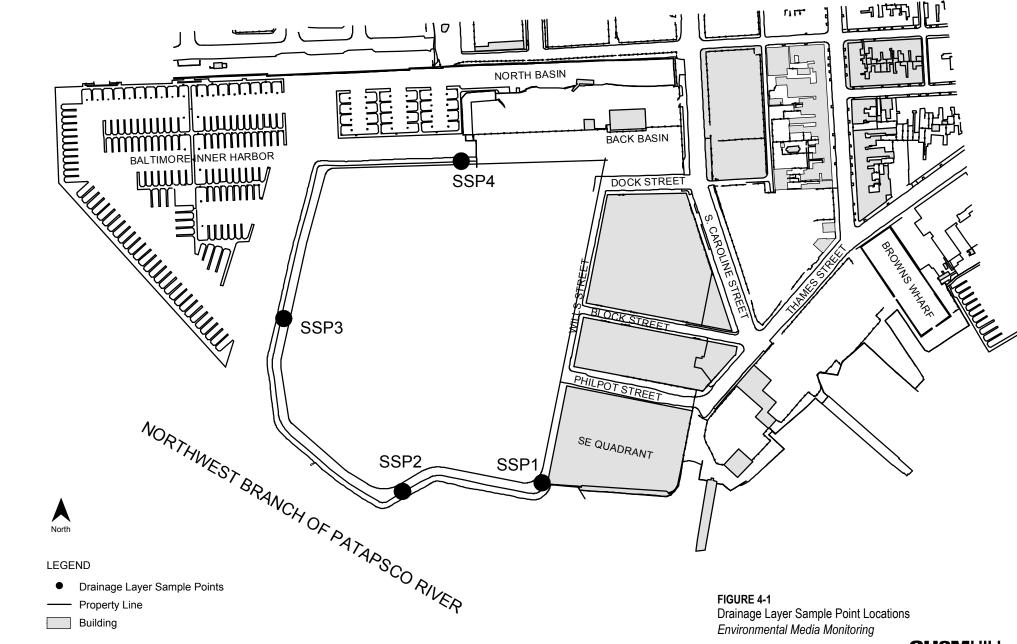
Year	CR	CR	Cyanide	Spec.	рН	Temp.	D.O.	ORP
		(Filtered)		Cond.				
2013	0.0011	0.0011	5	1.20	6.90	21.65	3.86	78
2012	0.0028	0.0014	1	2.54	6.59	14.22	5.07	200
2011	0.0034	0.0034	5	2.01	6.5	20.1	0.88	34
2010	-	-	-	1	1	-	-	-
2009	-	-	-	1	1	-	-	-
2008	-	-	-	-	-	-	-	-
2007	0.116	0.015	10	-	-	-	-	-
2006	0.015	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	-	-	-	-	-

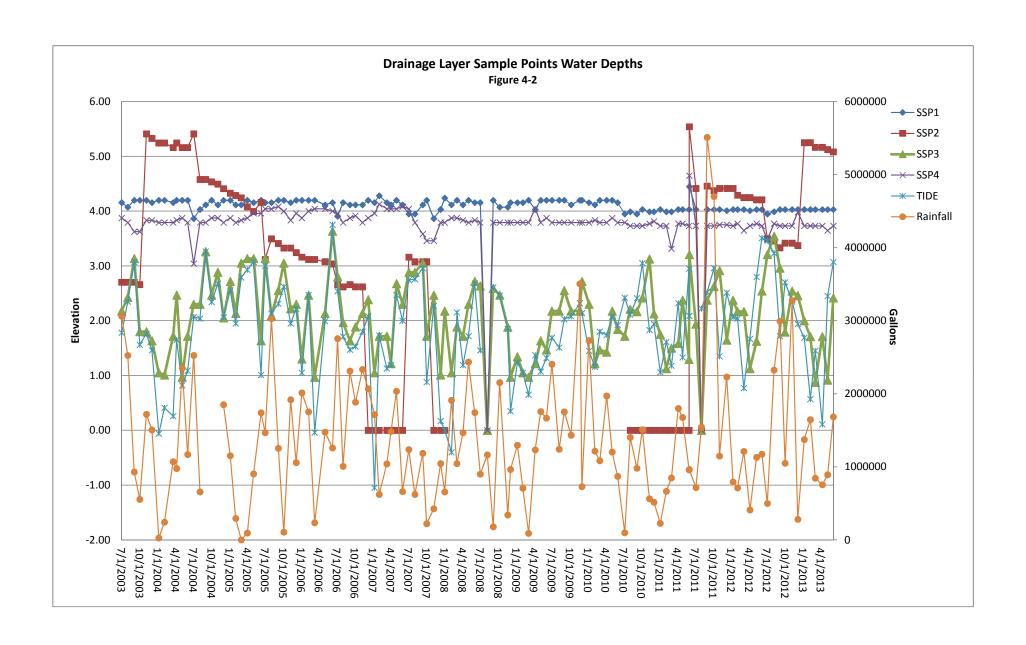
Table 4-3
Drainage Layer Sampling Data SSMP3
Second Quarter 2013

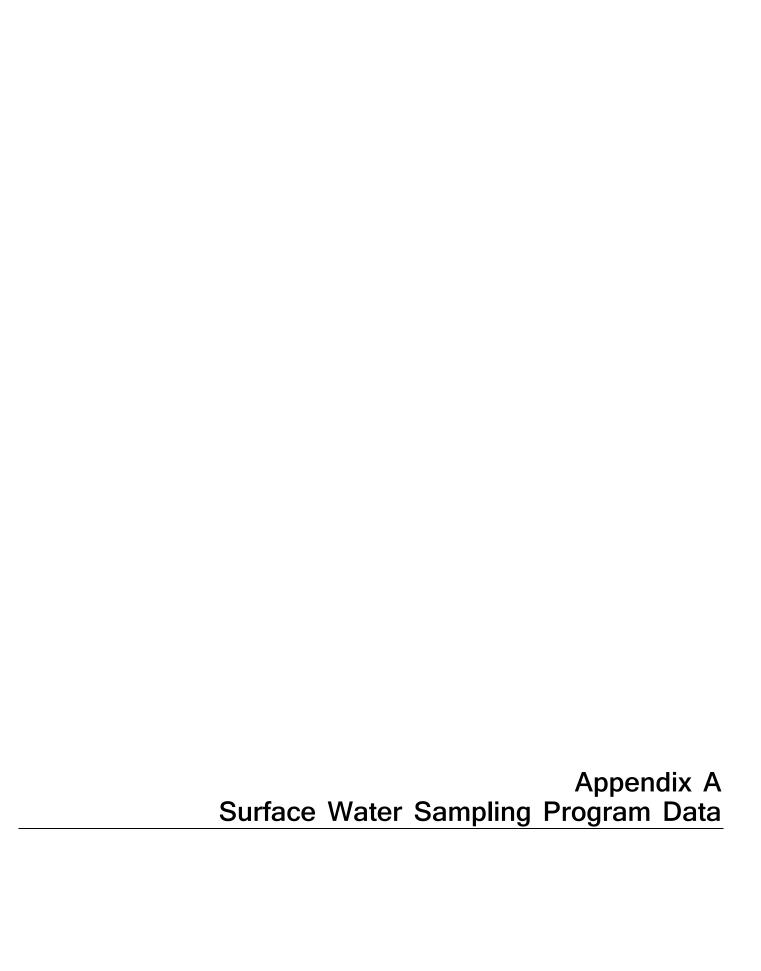
Year	CR	CR	Cyanide	Spec.	рН	Temp.	D.O.	ORP
		(Filtered)		Cond.				
2013	0.0011	0.0012	5	18.9	7.00	22.54	8.05	-98
2012	0.0016	0.0019	10	13.8	7.14	14.79	8.82	167
2011	0.0034	0.0034	5	2.696	6.89	19.8	0.75	12
2010	0.0034	0.0034	5	-	-	-	-	-
2009	0.003	0.003	5	31.9	-	13.8	9.88	-
2008	0.0023	0.0023	5	-	-	19.1	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	-	-	-	-	-

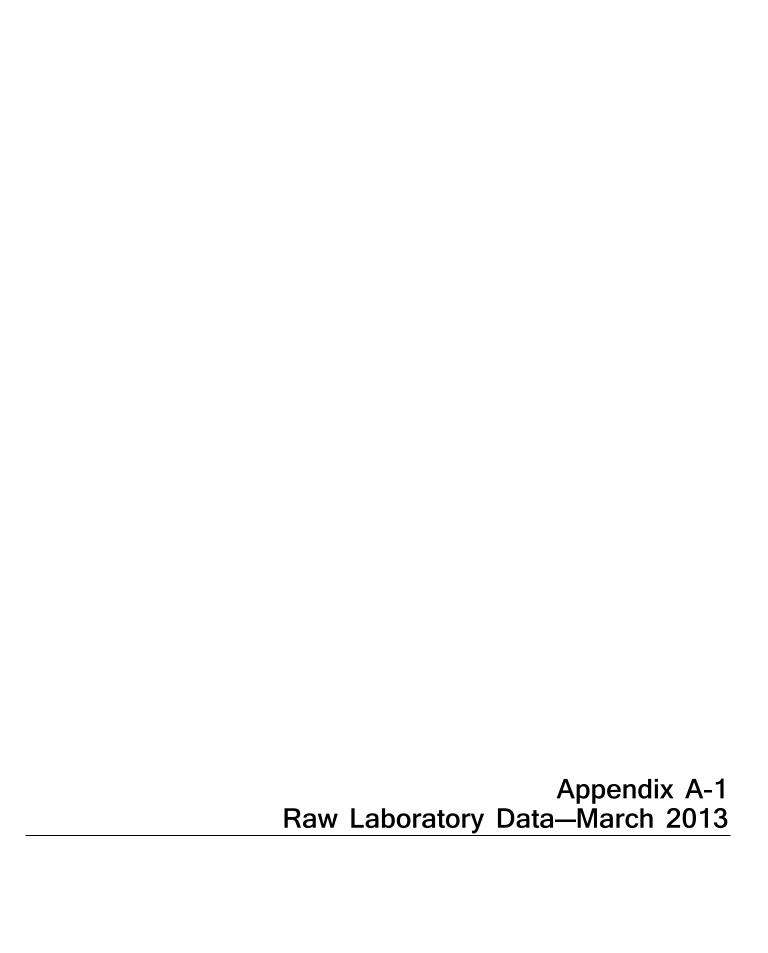
Table 4-4
Drainage Layer Sampling Data SSMP4
Second Quarter 2013

Year	CR	CR	Cyanide	Spec.	рН	Temp.	D.O.	ORP
		(Filtered)		Cond.				
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	-	1	1	1	-
2009	0.0093	0.0086	5	6.44	1	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	ı	-
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	1	-
2000	0.01	0.01	10	-	-	-	-	-











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ANALYTICAL RESULTS

Prepared by:

Prepared for:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425 Honeywell International, Inc. 101 Columbia Road MEY-3 Morristown NJ 07962

March 14, 2013

Project: Baltimore Inner Harbor, MD

Submittal Date: 03/08/2013 Group Number: 1374299 SDG: BHB01 PO Number: 4500013806 State of Sample Origin: MD

Client Sample Description	<u>Lancaster Labs (LLI) #</u>
30905-SW3T-030813 BKG Grab Water	6977981
30905-SW3T-030813 MS Grab Water	6977982
30905-SW3T-030813 MSD Grab Water	6977983
30905-SW3T-030813 DUP Grab Water	6977984
30905-SW3B-030813 Grab Water	6977985
30905-SW4T-030813 Grab Water	6977986
30905-SW4B-030813 Grab Water	6977987
30905-SW5T-030813 Grab Water	6977988
30905-SW5B-030813 Grab Water	6977989
30905-SW6T-030813 Grab Water	6977990
30905-SW6B-030813 Grab Water	6977991
30905-SW7T-030813 Grab Water	6977992
30905-SW7B-030813 Grab Water	6977993
30905-SW8T-030813 BKG Grab Water	6977994
30905-SW8T-030813 MS Grab Water	6977995
30905-SW8T-030813 MSD Grab Water	6977996
30905-SW8T-030813 DUP Grab Water	6977997
30905-SW8B-030813 Grab Water	6977998
30905-SW9T-030813 Grab Water	6977999
30905-SW9B-030813 Grab Water	6978000
30905-SW10T-030813 Grab Water	6978001
30905-SW10B-030813 Grab Water	6978002

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO

Honeywell International

Attn: Ken Biles



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ELECTRONIC	Honeywell International, Inc.	Attn: Rakesh Singh
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ELECTRONIC	Honeywell International, Inc.	Attn: Suraj Nayak
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Respectfully Submitted,

Wendy A. Kozma

Principal Specialist Group Leader

Wendy a. Kenn

(717) 556-7257



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Sample Description: 30905-SW3T-030813 BKG Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977981 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 08:52 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW3T- SDG#: BHB01-01BKG

Submitted: 03/08/2013 17:25

As Received As Received

... Method Limit of

CAT
No. Analysis Name

CAS Number

As Received
As Received
Detection Limit*

Quantitation
Factor

Metals Dissolved SW-846 6010B mg/l mg/l mg/l

07051 Chromium 7440-47-3 0.0011 J 0.0100 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848003	03/13/2013 17:57	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130711848003	03/13/2013 11:00	James L Mertz	1



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Sample Description: 30905-SW3T-030813 MS Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977982 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 08:52 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW3T- SDG#: BHB01-01MS

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Method Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 0.207
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848003	03/13/2013	18:10	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130711848003	03/13/2013	11:00	James L Mertz	1



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Sample Description: 30905-SW3T-030813 MSD Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977983 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 08:52 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW3T- SDG#: BHB01-01MSD

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/1
 mg/1
 mg/1

 07051 Chromium
 7440-47-3
 0.202
 0.0011
 0.0100
 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848003	03/13/2013	18:14	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130711848003	03/13/2013	11:00	James L Mertz	1



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Sample Description: 30905-SW3T-030813 DUP Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977984 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 08:52 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW3T- SDG#: BHB01-01DUP

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100
 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848003	03/13/2013 18:06	John P Hook	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130711848003	03/13/2013 11:00	James L Mertz	1



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Sample Description: 30905-SW3B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977985 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 08:54 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW3B- SDG#: BHB01-02

Submitted: 03/08/2013 17:25

CAT As Received As Received Method Limit of Dilution Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100
 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848003	03/13/2013 18:2	3 John P Hook	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130711848003	03/13/2013 11:0	O James L Mertz	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Sample Description: 30905-SW4T-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977986 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 08:57 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW4T- SDG#: BHB01-03

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100
 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848003	03/13/2013 18:27	John P Hook	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130711848003	03/13/2013 11:00	James L Mertz	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Sample Description: 30905-SW4B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977987 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 08:59 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW4B- SDG#: BHB01-04

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Method Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100
 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848003	03/13/2013 18:40	John P Hook	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130711848003	03/13/2013 11:00	James L Mertz	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Sample Description: 30905-SW5T-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977988 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:02 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW5T- SDG#: BHB01-05

Submitted: 03/08/2013 17:25

CAT As Received As Received Method Limit of Dilution Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100
 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848003	03/13/2013 18:44	John P Hook	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130711848003	03/13/2013 11:00	James L Mertz	1



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Sample Description: 30905-SW5B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977989 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:04 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW5B- SDG#: BHB01-06

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Method Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848003	03/13/2013 18:49	John P Hook	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130711848003	03/13/2013 11:00	James L Mertz	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Sample Description: 30905-SW6T-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977990 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:08 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW6T- SDG#: BHB01-07

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result

As Received Method Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848003	03/13/2013 18:53	John P Hook	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130711848003	03/13/2013 11:00	James L Mertz	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Sample Description: 30905-SW6B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977991 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:10 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW6B- SDG#: BHB01-08

Submitted: 03/08/2013 17:25

CAT As Received As Received

CAT Analysis Name CAS Number Result

As Received Method Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

General Sample Comments

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848003	03/13/2013 18:57	John P Hook	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130711848003	03/13/2013 11:00	James L Mertz	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Sample Description: 30905-SW7T-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977992 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:12 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW7T- SDG#: BHB01-09

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848003	03/13/2013	19:02	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130711848003	03/13/2013	11:00	James L Mertz	1



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Sample Description: 30905-SW7B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977993 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:14 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW7B- SDG#: BHB01-10

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100
 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ıe	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848003	03/13/2013	19:06	John P Hook	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130711848003	03/13/2013	11:00	James L Mertz	1
	rec)							



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Sample Description: 30905-SW8T-030813 BKG Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977994 LLI Group # 1374299 Account # 10651

Dilution

Factor

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:16 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962 Reported: 03/14/2013 08:43

SW8T-SDG#: BHB01-11BKG

No.

Submitted: 03/08/2013 17:25

As Received As Received Method Limit of CAT As Received Analysis Name CAS Number Detection Limit* Quantitation

Metals Dissolved SW-846 6010B mg/1mg/l mg/l

07051 Chromium 7440-47-3 0.0011 0.0100

Result

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848004	03/14/2013	00:43	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130711848004	03/13/2013	10:30	James L Mertz	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Sample Description: 30905-SW8T-030813 MS Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977995 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:16 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW8T- SDG#: BHB01-11MS

Submitted: 03/08/2013 17:25

CAT As Received As Received Method Limit of Detection Limit Quantitation Factor

 Metals Dissolved
 SW-846
 6010B
 mg/l
 mg/l
 mg/l

 07051
 Chromium
 7440-47-3
 0.199
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848004	03/14/2013	00:55	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130711848004	03/13/2013	10:30	James L Mertz	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Sample Description: 30905-SW8T-030813 MSD Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977996 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:16 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW8T- SDG#: BHB01-11MSD

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 0.201
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848004	03/14/2013	00:59	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130711848004	03/13/2013	10:30	James L Mertz	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Sample Description: 30905-SW8T-030813 DUP Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977997 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:16 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW8T- SDG#: BHB01-11DUP

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

Metals Dissolved SW-846 6010B mg/l mg/l mg/l mg/l

07051 Chromium 7440-47-3 0.0013 J 0.0011 0.0100 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848004	03/14/2013	00:51	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130711848004	03/13/2013	10:30	James L Mertz	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Sample Description: 30905-SW8B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977998 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:18 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW8B- SDG#: BHB01-12

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848004	03/14/2013	01:07	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130711848004	03/13/2013	10:30	James L Mertz	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Sample Description: 30905-SW9T-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6977999 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:20 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW9T- SDG#: BHB01-13

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100
 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848004	03/14/2013	01:12	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130711848004	03/13/2013	10:30	James L Mertz	1



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Sample Description: 30905-SW9B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978000 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:22 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW9B- SDG#: BHB01-14

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Detection Limit * Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848004	03/14/2013	01:23	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130711848004	03/13/2013	10:30	James L Mertz	1



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Sample Description: 30905-SW10T-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978001 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:24 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW10T SDG#: BHB01-15

Submitted: 03/08/2013 17:25

CAT As Received As Received Method Limit of Dilution Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848004	03/14/2013	01:28	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130711848004	03/13/2013	10:30	James L Mertz	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Sample Description: 30905-SW10B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978002 LLI Group # 1374299 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:25 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/14/2013 08:43 Morristown NJ 07962

SW10B SDG#: BHB01-16*

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

Metals Dissolved SW-846 6010B mg/l mg/l mg/l

07051 Chromium 7440-47-3 N.D. 0.0011 0.0100 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848004	03/14/2013 01:32	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130711848004	03/13/2013 10:30	James L Mertz	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax; 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Quality Control Summary

Client Name: Honeywell International, Inc. Group Number: 1374299

Reported: 03/14/13 at 08:43 AM

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank MDL**	Blank <u>LOO</u>	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 130711848003 Chromium	Sample num				103		90-110		
Batch number: 130711848004 Chromium	Sample num			8002 mg/l	102		90-110		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD <u>Limits</u>	RPD	RPD <u>MAX</u>	BKG Conc	DUP <u>Conc</u>	DUP <u>RPD</u>	Dup RPD Max
Batch number: 130711848003 Chromium	Sample r	number(s) 100	: 6977981 81-120		3 UNSP	K: 6977981 0.0011 J	BKG: 6977981 N.D.	200* (1)	20
Batch number: 130711848004 Chromium	Sample r 99	number(s) 101	: 6977994 81-120		20 UNSP	K: 6977994 N.D.	BKG: 6977994 0.0013 J	200* (1)	20

^{*-} Outside of specification

^{**-}This limit was used in the evaluation of the final result for the blank

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

- < less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than
- **J** estimated value The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis

Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

Inorganic Qualifiers

A B C D	TIC is a possible aldol-condensation product Analyte was also detected in the blank Pesticide result confirmed by GC/MS Compound quantitated on a diluted sample	B E M N	Value is <crdl, but="" control="" due="" duplicate="" estimated="" injection="" interference="" limits<="" met="" not="" precision="" sample="" spike="" th="" to="" within="" ≥idl=""></crdl,>
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
		_	
Р	Concentration difference between primary and	W	Post digestion spike out of control limits
	confirmation columns >25%	*	Duplicate analysis not within control limits
U	Compound was not detected	+	Correlation coefficient for MSA < 0.995
X,Y,Z	Defined in case narrative		

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

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

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

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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ANALYTICAL RESULTS

Prepared by:

Prepared for:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425 Honeywell International, Inc. 101 Columbia Road MEY-3 Morristown NJ 07962

March 20, 2013

Project: Baltimore Inner Harbor, MD

Submittal Date: 03/08/2013 Group Number: 1374300 SDG: BHB02 PO Number: 4500013806 State of Sample Origin: MD

Client Sample Description	Lancaster Labs (LLI) #
30905-SW11T-030813 BKG Grab Water	6978003
30905-SW11T-030813 MS Grab Water	6978004
30905-SW11T-030813 MSD Grab Water	6978005
30905-SW11T-030813 DUP Grab Water	6978006
30905-SW11B-030813 Grab Water	6978007
30905-SW12T-030813 Grab Water	6978008
30905-SW12B-030813 Grab Water	6978009
30905-SW13T-030813 Grab Water	6978010
30905-SW13B-030813 Grab Water	6978011
30905-SW14T-030813 Grab Water	6978012
30905-SW14B-030813 Grab Water	6978013
30905-SW15T-030813 Grab Water	6978014
30905-SW15B-030813 Grab Water	6978015
30905-SW16T-030813 BKG Grab Water	6978016
30905-SW16T-030813 MS Grab Water	6978017
30905-SW16T-030813 MSD Grab Water	6978018
30905-SW16T-030813 DUP Grab Water	6978019
30905-SW16B-030813 Grab Water	6978020
30905-SW17T-030813 Grab Water	6978021
30905-SW17B-030813 Grab Water	6978022
30905-SW18T-030813 Grab Water	6978023
30905-SW18M-030813 Grab Water	6978024
30905-SW18B-030813 Grab Water	6978025

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC Honeywell International Attn: Ken Biles



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Respectfully Submitted,

Wendy A. Kozma

Wendy a. Kenn

Principal Specialist Group Leader

(717) 556-7257



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Sample Description: 30905-SW11T-030813 BKG Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978003 LLI Group # 1374300 Account # 10651

Factor

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:30 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962 Reported: 03/20/2013 15:56

SW11T SDG#: BHB02-01BKG

No.

Submitted: 03/08/2013 17:25

As Received As Received Method Limit of CAT As Received Dilution Analysis Name CAS Number Detection Limit* Quantitation Result

Metals Dissolved SW-846 6010B mg/l mg/l 07051 Chromium 7440-47-3 0.0011 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848004	03/14/2013	22:35	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130721848004	03/14/2013	11:08	James L Mertz	1



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Sample Description: 30905-SW11T-030813 MS Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978004 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:30 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW11T SDG#: BHB02-01MS

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 0.192
 0.0011
 0.0100
 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848004	03/14/2013	22:48	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130721848004	03/14/2013	11:08	James L Mertz	1



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Sample Description: 30905-SW11T-030813 MSD Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978005 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:30 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW11T SDG#: BHB02-01MSD

Submitted: 03/08/2013 17:25

As Received As Received

CAT As Received Method Limit of

CAT No. Analysis Name CAS Number Result Method Limit of Dilution Factor

07051 Chromium 7440-47-3 0.192 0.0011 0.0100 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848004	03/14/2013	22:53	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130721848004	03/14/2013	11:08	James L Mertz	1



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Sample Description: 30905-SW11T-030813 DUP Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978006 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:30 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW11T SDG#: BHB02-01DUP

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848004	03/14/2013	22:44	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130721848004	03/14/2013	11:08	James L Mertz	1



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Sample Description: 30905-SW11B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978007 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:32 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW11B SDG#: BHB02-02

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Detection Limit * Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/1
 mg/1
 mg/1

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848004	03/14/2013	23:05	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130721848004	03/14/2013	11:08	James L Mertz	1



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Sample Description: 30905-SW12T-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978008 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:34 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW12T SDG#: BHB02-03

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848004	03/14/2013	23:17	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130721848004	03/14/2013	11:08	James L Mertz	1



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Sample Description: 30905-SW12B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978009 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:36 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW12B SDG#: BHB02-04

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848004	03/14/2013	23:21	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130721848004	03/14/2013	11:08	James L Mertz	1



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Sample Description: 30905-SW13T-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978010 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:37 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW13T SDG#: BHB02-05

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Detection Limit Method Limit of Detection Limit Pactor

Metals Dissolved SW-846 6010B mg/l mg/l mg/l

07051 Chromium 7440-47-3 N.D. 0.0011 0.0100 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848004	03/14/2013	23:25	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130721848004	03/14/2013	11:08	James L Mertz	1



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Sample Description: 30905-SW13B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978011 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:38 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962 Reported: 03/20/2013 15:56

SW13B SDG#: BHB02-06

Submitted: 03/08/2013 17:25

As Received As Received Method Limit of CAT As Received Dilution Analysis Name CAS Number Detection Limit* Quantitation No. Result Factor

Metals Dissolved SW-846 6010B mg/1mg/l mg/l

07051 Chromium 7440-47-3 0.0011 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848004	03/14/2013	23:30	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130721848004	03/14/2013	11:08	James L Mertz	1



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Sample Description: 30905-SW14T-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978012 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:40 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962 Reported: 03/20/2013 15:56

SW14T SDG#: BHB02-07

Submitted: 03/08/2013 17:25

As Received As Received Method Limit of CAT As Received Dilution Analysis Name CAS Number Detection Limit* Quantitation No. Result Factor

Metals Dissolved SW-846 6010B mg/1mg/l mg/l

07051 Chromium 7440-47-3 0.0011 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848004	03/14/2013	23:34	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130721848004	03/14/2013	11:08	James L Mertz	1



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Sample Description: 30905-SW14B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978013 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:41 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962 Reported: 03/20/2013 15:56

SW14B SDG#: BHB02-08

Submitted: 03/08/2013 17:25

As Received As Received Method Limit of CAT As Received Dilution Analysis Name CAS Number Detection Limit* Quantitation No. Result Factor

Metals Dissolved SW-846 6010B mg/1mg/l mg/l

07051 Chromium 7440-47-3 0.0011 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848004	03/14/2013	23:38	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130721848004	03/14/2013	11:08	James L Mertz	1
	rec)							



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Sample Description: 30905-SW15T-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978014 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:42 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW15T SDG#: BHB02-09

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100
 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848004	03/14/2013	23:42	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130721848004	03/14/2013	11:08	James L Mertz	1



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Sample Description: 30905-SW15B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978015 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:44 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW15B SDG#: BHB02-10

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Detection Limit * Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848004	03/14/2013	23:47	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130721848004	03/14/2013	11:08	James L Mertz	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Sample Description: 30905-SW16T-030813 BKG Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978016 LLI Group # 1374300

Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:48 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW16T SDG#: BHB02-11BKG

Submitted: 03/08/2013 17:25

As Received As Received

Method Limit of

CAT As Received Method Limit of Dilution No. Analysis Name CAS Number Result Detection Limit* Quantitation Factor

Metals Dissolved SW-846 6010B mg/l mg/l mg/l

07051 Chromium 7440-47-3 N.D. 0.0011 0.0100 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848005	03/14/2013	17:24	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130721848005	03/14/2013	11:00	James L Mertz	1



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Sample Description: 30905-SW16T-030813 MS Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978017 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:48 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW16T SDG#: BHB02-11MS

Submitted: 03/08/2013 17:25

CAT As Received As Received Method Limit of Dilution Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 0.187
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848005	03/14/2013 17	7:36	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130721848005	03/14/2013 11	1:00	James L Mertz	1



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Sample Description: 30905-SW16T-030813 MSD Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978018 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:48 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962 Reported: 03/20/2013 15:56

SW16T SDG#: BHB02-11MSD

Submitted: 03/08/2013 17:25

As Received As Received Method Limit of CAT As Received Dilution Analysis Name CAS Number Detection Limit* Quantitation No. Result Factor

SW-846 6010B mg/l mg/l Metals Dissolved

7440-47-3 0.0011 0.0100 07051 Chromium 0.191

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848005	03/14/2013 17:40	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130721848005	03/14/2013 11:00	James L Mertz	1



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Sample Description: 30905-SW16T-030813 DUP Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978019 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:48 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW16T SDG#: BHB02-11DUP

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

Metals Dissolved SW-846 6010B mg/l mg/l mg/l

07051 Chromium 7440-47-3 N.D. 0.0011 0.0100 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848005	03/14/2013 17:32	John P Hook	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130721848005	03/14/2013 11:00	James L Mertz	1



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Sample Description: 30905-SW16B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978020 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:50 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW16B SDG#: BHB02-12

Submitted: 03/08/2013 17:25

CAT As Received As Received Method Limit of Dilution Factor

 Metals Dissolved
 SW-846
 6010B
 mg/l
 mg/l
 mg/l

 07051
 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100
 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848005	03/14/2013 17:48	John P Hook	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130721848005	03/14/2013 11:00	James L Mertz	1



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Sample Description: 30905-SW17T-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978021 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:51 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW17T SDG#: BHB02-13

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Method Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100
 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848005	03/14/2013 17:52	John P Hook	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130721848005	03/14/2013 11:00	James L Mertz	1



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Sample Description: 30905-SW17B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978022 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:53 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW17B SDG#: BHB02-14

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Method Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100
 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848005	03/14/2013 18:04	John P Hook	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130721848005	03/14/2013 11:00	James L Mertz	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Sample Description: 30905-SW18T-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978023 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:56 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW18T SDG#: BHB02-15

Submitted: 03/08/2013 17:25

CAT As Received As Received Method Limit of Dilution Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848005	03/14/2013 18:0	John P Hook	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130721848005	03/14/2013 11:0) James L Mertz	1



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Sample Description: 30905-SW18M-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978024 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:58 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962 Reported: 03/20/2013 15:56

SW18B SDG#: BHB02-16

Submitted: 03/08/2013 17:25

As Received As Received Method Limit of CAT As Received Dilution Analysis Name CAS Number Detection Limit* Quantitation No. Result Factor

Metals Dissolved SW-846 6010B mg/1mg/l mg/l

07051 Chromium 7440-47-3 0.0011 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848005	03/14/2013	18:12	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130721848005	03/14/2013	11:00	James L Mertz	1



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Sample Description: 30905-SW18B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978025 LLI Group # 1374300 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 10:00 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW18M SDG#: BHB02-17*

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848005	03/14/2013 18:16	John P Hook	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130721848005	03/14/2013 11:00	James L Mertz	1



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Page 1 of 1

Quality Control Summary

Client Name: Honeywell International, Inc. Group Number: 1374300

Reported: 03/20/13 at 03:56 PM

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank MDL**	Blank <u>LOO</u>	Report <u>Units</u>	LCS <u>%REC</u>	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 130721848004 Chromium	Sample numb	per(s): 69 0.0011		8015 mg/l	97		90-110		
Batch number: 130721848005 Chromium	Sample numb	per(s): 69		8025 mg/l	97		90-110		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS <u>%REC</u>	MSD %REC	MS/MSD <u>Limits</u>	<u>RPD</u>	RPD <u>MAX</u>	BKG <u>Conc</u>	DUP <u>Conc</u>	DUP RPD	Dup RPD <u>Max</u>
Batch number: 130721848004 Chromium	Sample n 96	umber(s) 96	: 6978003 81-120			K: 6978003 I N.D.	BKG: 6978003 N.D.	0 (1)	20
Batch number: 130721848005 Chromium	Sample n 93	umber(s) 96	: 6978016 81-120		5 UNSP	K: 6978016 N.D.	BKG: 6978016 N.D.	0 (1)	20

^{*-} Outside of specification

^{**-}This limit was used in the evaluation of the final result for the blank

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

- < less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than
- J estimated value The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis

Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

Inorganic Qualifiers

A B C	TIC is a possible aldol-condensation product Analyte was also detected in the blank Pesticide result confirmed by GC/MS	B E M	Value is <crdl, but="" due="" duplicate="" estimated="" injection="" interference="" met<="" not="" precision="" th="" to="" ≥idl=""></crdl,>
D E	Compound quantitated on a diluted sample Concentration exceeds the calibration range of the instrument	N S	Spike sample not within control limits Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
Р	Concentration difference between primary and	W	Post digestion spike out of control limits
	confirmation columns >25%	*	Duplicate analysis not within control limits
U X,Y,Z	Compound was not detected Defined in case narrative	+	Correlation coefficient for MSA < 0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

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

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

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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ANALYTICAL RESULTS

Prepared by:

Prepared for:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425 Honeywell International, Inc. 101 Columbia Road MEY-3 Morristown NJ 07962

March 20, 2013

Project: Baltimore Inner Harbor, MD

Submittal Date: 03/08/2013 Group Number: 1374301 SDG: BHB03 PO Number: 4500013806 State of Sample Origin: MD

Client Sample Description	<u>Lancaster Labs (LLI) #</u>
30905-SW19T-030813 BKG Grab Water	6978026
30905-SW19T-030813 MS Grab Water	6978027
30905-SW19T-030813 MSD Grab Water	6978028
30905-SW19T-030813 DUP Grab Water	6978029
30905-SW19B-030813 Grab Water	6978030
30905-SW20T-030813 Grab Water	6978031
30905-SW20B-030813 Grab Water	6978032
30905-SWCentT-030813 Grab Water	6978033
30905-SWCentB-030813 Grab Water	6978034
30905-SWLadyT-030813 Grab Water	6978035
30905-SWLadyB-030813 Grab Water	6978036
30905-SWD1-030813 Grab Water	6978037
30905-SWD2-030813 Grab Water	6978038
30905-SWD3-030813 Grab Water	6978039
30905-SWD4-030813 Grab Water	6978040
30905-SW-FB1-030813 Grab Water	6978041
30905-SW-RB1-030813 Grab Water	6978042
30905-SW-RB2-030813 Grab Water	6978043

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Honeywell International	Attn: Ken Biles
ELECTRONIC COPY TO	Critigen	Attn: Amy Klopper
	CH2M Hill, Inc.	Attn: Robert Steele



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ELECTRONIC	Honeywell	Attn: Katherine Beach
COPY TO		
ELECTRONIC	Honeywell International, Inc.	Attn: Rakesh Singh
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ELECTRONIC	Honeywell International, Inc.	Attn: Peeyush Gupta
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ELECTRONIC	CH2M Hill, Inc.	Attn: Bernice Kidd
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ELECTRONIC	Honeywell International, Inc.	Attn: Bindu Lingaiah
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ELECTRONIC	Honeywell International, Inc.	Attn: Parthiban P
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ELECTRONIC	Honeywell International, Inc.	Attn: Aruna Chandraskekar
COPY TO		
ELECTRONIC	Honeywell International, Inc.	Attn: Suraj Nayak
COPY TO		

Respectfully Submitted,

Wendy A. Kozma

Principal Specialist Group Leader

Wendy a. Kenn

(717) 556-7257



Account

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Sample Description: 30905-SW19T-030813 BKG Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978026 LLI Group # 1374301

10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 10:01 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW19T SDG#: BHB03-01BKG

Submitted: 03/08/2013 17:25

As Received As Received

--- Method Limit of

CAT As Received Method Limit of Dilution No. Analysis Name CAS Number Result Detection Limit* Quantitation Factor

Metals Dissolved SW-846 6010B mg/l mg/l mg/l

07051 Chromium 7440-47-3 N.D. 0.0011 0.0100 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130741848002	03/18/2013	04:44	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130741848002	03/17/2013	11:00	James L Mertz	1



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Sample Description: 30905-SW19T-030813 MS Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978027 LLI Group # 1374301 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 10:01 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW19T SDG#: BHB03-01MS

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 0.194
 0.0011
 0.0100
 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130741848002	03/18/2013	04:57	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130741848002	03/17/2013	11:00	James L Mertz	1



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Sample Description: 30905-SW19T-030813 MSD Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978028 LLI Group # 1374301

Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 10:01 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW19T SDG#: BHB03-01MSD

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 0.190
 0.0011
 0.0100
 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130741848002	03/18/2013	05:02	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130741848002	03/17/2013	11:00	James L Mertz	1



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Sample Description: 30905-SW19T-030813 DUP Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978029 LLI Group # 1374301 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 10:01 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW19T SDG#: BHB03-01DUP

Submitted: 03/08/2013 17:25

As Received As Received

Method Limit of

CAT As Received Method Limit of Dilution No. Analysis Name CAS Number Result Detection Limit* Quantitation Factor

Metals Dissolved SW-846 6010B mg/1 mg/1 mg/1

07051 Chromium 7440-47-3 N.D. 0.0011 0.0100 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130741848002	03/18/2013	04:53	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130741848002	03/17/2013	11:00	James L Mertz	1



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Sample Description: 30905-SW19B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978030 LLI Group # 1374301 Account # 10651

Factor

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 10:02 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962 Reported: 03/20/2013 15:56

SW19B SDG#: BHB03-02

No.

Submitted: 03/08/2013 17:25

As Received As Received Method Limit of CAT As Received Dilution Analysis Name CAS Number Detection Limit* Quantitation

Result Metals Dissolved SW-846 6010B mg/1mg/l mg/l

07051 Chromium 7440-47-3 0.0011 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130741848002	03/18/2013	05:53	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130741848002	03/17/2013	11:00	James L Mertz	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Sample Description: 30905-SW20T-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978031 LLI Group # 1374301 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 10:04 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW20T SDG#: BHB03-03

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Dilution Factor

Metals Dissolved SW-846 6010B mg/l mg/l mg/l

07051 Chromium 7440-47-3 N.D. 0.0011 0.0100 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130741848002	03/18/2013	05:57	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130741848002	03/17/2013	11:00	James L Mertz	1



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Sample Description: 30905-SW20B-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978032 LLI Group # 1374301 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 10:06 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SW20B SDG#: BHB03-04

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130741848002	03/18/2013	06:02	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130741848002	03/17/2013	11:00	James L Mertz	1



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Sample Description: 30905-SWCentT-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978033 LLI Group # 1374301 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 08:47 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

CENTT SDG#: BHB03-05

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

Metals Dissolved SW-846 6010B mg/l mg/l mg/l

07051 Chromium 7440-47-3 N.D. 0.0011 0.0100 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130741848002	03/18/2013 06:06	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130741848002	03/17/2013 11:00	James L Mertz	1



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Sample Description: 30905-SWCentB-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978034 LLI Group # 1374301 # 10651

Factor

Account

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 08:49 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962 Reported: 03/20/2013 15:56

CENTB SDG#: BHB03-06

No.

Submitted: 03/08/2013 17:25

As Received As Received Method Limit of CAT As Received Dilution Analysis Name CAS Number Detection Limit* Quantitation Result

Metals Dissolved SW-846 6010B mg/1mg/l mg/l

07051 Chromium 7440-47-3 0.0011 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130741848002	03/18/2013	06:18	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130741848002	03/17/2013	11:00	James L Mertz	1



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Sample Description: 30905-SWLadyT-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978035 LLI Group # 1374301 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 08:42 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

LADYT SDG#: BHB03-07

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130741848002	03/18/2013	06:23	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130741848002	03/17/2013	11:00	James L Mertz	1



Account

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Sample Description: 30905-SWLadyB-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978036 LLI Group # 1374301

10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 08:44 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962 Reported: 03/20/2013 15:56

LADYB SDG#: BHB03-08

Submitted: 03/08/2013 17:25

As Received As Received Method Limit of CAT As Received Dilution Analysis Name CAS Number Detection Limit* Quantitation No. Result Factor

Metals Dissolved SW-846 6010B mg/1mg/l mg/l

07051 Chromium 7440-47-3 0.0011 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130741848002	03/18/2013	06:27	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130741848002	03/17/2013	11:00	James L Mertz	1



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Sample Description: 30905-SWD1-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978037 LLI Group # 1374301 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:06 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SWD1- SDG#: BHB03-09FD

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Dilution Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100
 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130721848005	03/14/2013 18:20	John P Hook	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130721848005	03/14/2013 11:00	James L Mertz	1



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Sample Description: 30905-SWD2-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978038 LLI Group # 1374301 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:26 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SWD2- SDG#: BHB03-10FD

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Method Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor	
07051	Chromium	SW-846 6010B	1	130721848005	03/14/2013 18:	24 John P Hook	1	
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130721848005	03/14/2013 11:	00 James L Mertz	1	



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Sample Description: 30905-SWD3-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978039 LLI Group # 1374301 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:44 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962 Reported: 03/20/2013 15:56

SWD3-SDG#: BHB03-11FD

Submitted: 03/08/2013 17:25

As Received As Received Method Limit of CAT As Received Dilution Analysis Name CAS Number Detection Limit* Quantitation No. Result Factor

Metals Dissolved SW-846 6010B mg/1mg/l mg/l

07051 Chromium 7440-47-3 0.0011 0.0100

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor		
07051	Chromium	SW-846 6010B	1	130721848005	03/14/2013	18:28	John P Hook	1		
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130721848005	03/14/2013	11:00	James L Mertz	1		



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Sample Description: 30905-SWD4-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978040 LLI Group # 1374301 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 10:08 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SWD4- SDG#: BHB03-12FD

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

 Metals Dissolved
 SW-846 6010B
 mg/l
 mg/l
 mg/l

 07051 Chromium
 7440-47-3
 N.D.
 0.0011
 0.0100
 1

General Sample Comments

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor	
07051	Chromium	SW-846 6010B	1	130711848004	03/14/2013	01:36	John W Yanzuk II	1	
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130711848004	03/13/2013	10:30	James L Mertz	1	



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Sample Description: 30905-SW-FB1-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978041 LLI Group # 1374301 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 08:55 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SWFB1 SDG#: BHB03-13FB

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Method Limit of Detection Limit* Quantitation Factor

07051 Chromium 7440-47-3 N.D. 0.0011 0.0100 1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	е	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	130711848004	03/14/2013 0	01:40	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130711848004	03/13/2013 1	10:30	James L Mertz	1



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Sample Description: 30905-SW-RB1-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978042 LLI Group # 1374301

Account

10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 09:28 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962

Submitted: 03/08/2013 17:25

Reported: 03/20/2013 15:56

SWRB1 SDG#: BHB03-14RB

Analysis Name

CAT

No.

As Received

As Received As Received Method

Limit of Detection Limit*

Dilution Quantitation Factor

SW-846 6010B mg/l mg/l Metals

CAS Number

07051 Chromium 7440-47-3 0.0011 0.0100

Result

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution	
No.					Date and Tir	me		Factor	
07051	Chromium	SW-846 6010B	1	130711848004	03/14/2013	01:44	John W Yanzuk II	1	
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	130711848004	03/13/2013	10:30	James L Mertz	1	
	rec)								



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Sample Description: 30905-SW-RB2-030813 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 6978043 LLI Group # 1374301 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 03/08/2013 10:08 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 03/20/2013 15:56 Morristown NJ 07962

SWRB2 SDG#: BHB03-15RB*

Submitted: 03/08/2013 17:25

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

07051 Chromium 7440-47-3 N.D. 0.0011 0.0100 1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor	
07051	Chromium	SW-846 6010B	1	130711848004	03/14/2013	01:48	John W Yanzuk II	1	
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	130711848004	03/13/2013	10:30	James L Mertz	1	



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Page 1 of 1

Quality Control Summary

Client Name: Honeywell International, Inc. Group Number: 1374301

Reported: 03/20/13 at 03:56 PM

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank MDL**	Blank <u>LOO</u>	Report <u>Units</u>	LCS <u>%REC</u>	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 130711848004 Chromium	Sample num	nber(s): 69 0.0011	078040-697 0.0100	8043 mg/l	102		90-110		
Batch number: 130721848005 Chromium	Sample num	nber(s): 69 0.0011	078037-697 0.0100	8039 mg/l	97		90-110		
Batch number: 130741848002 Chromium	Sample num	nber(s): 69 0.0011	078026-697 0.0100	8036 mg/l	102		90-110		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD <u>Limits</u>	RPD	RPD <u>MAX</u>	BKG <u>Conc</u>	DUP <u>Conc</u>	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: 130711848004 Chromium	Sample r	number(s) 101	: 6978040 81-120	-697804 1	3 UNSP	K: P977994 N.D.	BKG: P977994 0.0013 J	200* (1)	20
Batch number: 130721848005 Chromium	Sample r	number(s) 96	: 6978037 81-120		39 UNSP 20	K: P978016 N.D.	BKG: P978016 N.D.	0 (1)	20
Batch number: 130741848002 Chromium	Sample r	number(s) 95		-697803 2	36 UNSP 20	K: 6978026 N.D.	BKG: 6978026 N.D.	0 (1)	20

^{*-} Outside of specification

^{**-}This limit was used in the evaluation of the final result for the blank

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	Ĺ	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

- < less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than
- J estimated value The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis

Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

Inorganic Qualifiers

Α	TIC is a possible aldol-condensation product	В	Value is <crdl, but="" th="" ≥idl<=""></crdl,>
В	Analyte was also detected in the blank	E	Estimated due to interference
С	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of	S	Method of standard additions (MSA) used
	the instrument		for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
Р	Concentration difference between primary and	W	Post digestion spike out of control limits
	confirmation columns >25%	*	Duplicate analysis not within control limits
U	Compound was not detected	+	Correlation coefficient for MSA < 0.995
X,Y,Z	Defined in case narrative		

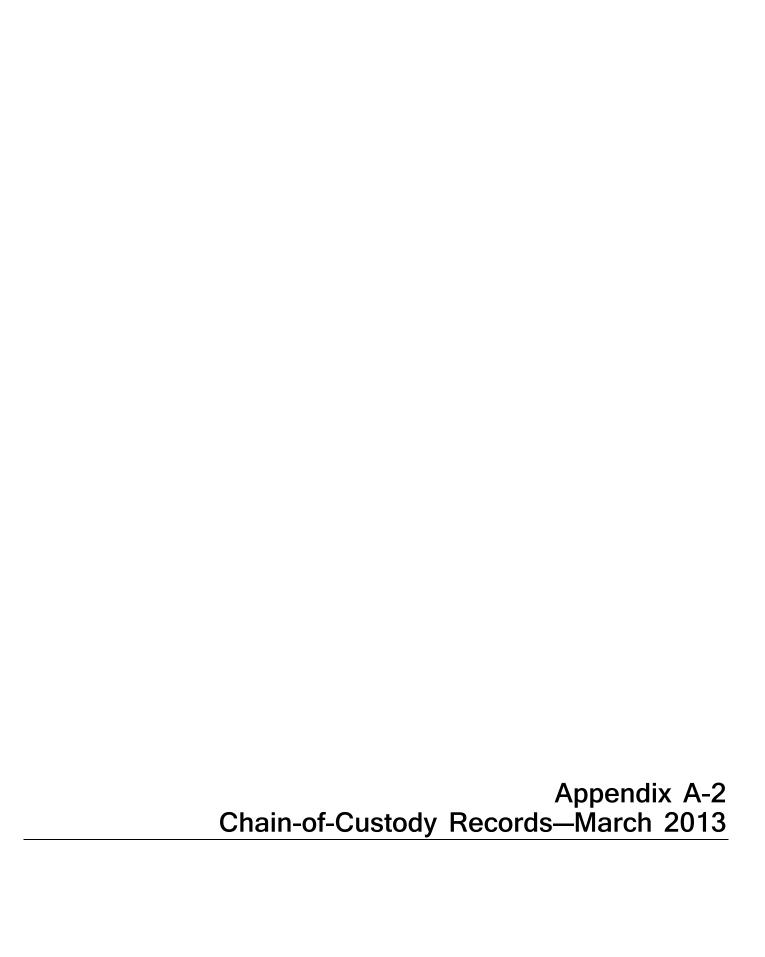
Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

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

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

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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acet 10651 grp) 1374299 #6977981-8002

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25 New Holland P ncaster, PA 17605					VIIC	y we		Onam	0.0	usto	uy / /	-mai	yolo iv	cque	, 3 L								ľ	COC#	30905-030
7) 656-2300	Misonia Karajis			Privileged 8	Confiden	tial	N			Site N	lame:		Baltimo	re	411.			Phas	e:					Lab Proj # (SDG):	
mpling Co.:	Maryland	Environm	ental Service	EDD To:		kenneth.biles(@ch2m.co	m		Locat	ion of	Site:	BALTIM	ORE, I	AD.			Samp Progr	oling ram	Surfa	ce Wa	ter		Lab ID	LLI
ient Contact: (ı	name. co	addres	s)	Sampler:	Amanda F	Penafiel; Racha	ael Griner.	Maura Mon	ris						Т									Site ID	BALTIMO
ristopher French				PO#	45000138	306				Preser	vative	3	af be	1 é d	g libe	150	201.				lais.	一		Lab Job#	
Columbia Road	Леуег 3					Time (TAT):		14		建 油工生														Authorized User:	Honey
rristown, NJ 07962					Consultar	nt		CH2M																	
eliminary Data To			m.com; en.com: hernice kidd@ch2m.com:				ł			201											.			Text & Excel File Drive	Excel & Te Orde
mple Receipt	kenneth b	iles@ch2:	m.com;								mple												ſ		
			en.com, bernice.kidd@ch2m.com;							- e	S	ir													
d Copy To	Amy Klop		. N	Fu	II Report 1	TAT:	ļ	28		ite/Grab	2	Chromium													
oice To:	Christoph	er French								J 👼	Filtered	00													
	Samp	le Identifi	cation	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	S S S	Field	SW6010											le	Copyright AESI: Version 3.0 Unauthorized use strictly prohibited.	
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units		qdd	77.98 LE LE: 660											Sampling Method (code)	Lab San Numbe
зт	5.5	6.0	30905-SW3T-030813	3/8/2013	0852	w-sw	WATER	REG	1	grab	Υ	х													
3M	-	_	30905-SW3M-030813	3/8/2013	-	w-sw	WATER	REG		grab											ľ				İ
3B	5.5	4.5	30905-SW3B-030813	3/8/2013	0854	w-sw	WATER	REG	1	grab	Υ	_x													
4T	6.67	٥.٥	30905-SW4T-030813	3/8/2013	0857	w-sw	WATER	REG	1	grab	Υ	х			<u> </u>								_		
4M	_	_	30905-SW4M-030813	3/8/2013	_	w-sw	WATER	REG		grab											l				L_
4B	6.67	567	30905-SW4B-030813	3/8/2013	0859	w-sw	WATER	REG_	1	grab	Υ	х													
5T	5.92	٥.٥	30905-SW5T-030813	3/8/2013	0902	w-sw	WATER	REG	1	grab	Υ	x		1	_						\dashv		-		
5M		-	30905-SW5M-030813	3/8/2013		w-sw	WATER	REG		grab						1									
5B	5.92	4.92	30905-SW5B-030813	3/8/2013	0904	w-sw	WATER	REG	1	grab	Υ	х												_	
6Т	5.0	0.0	30905-SW6T-030813	3/8/2013	0908	w-sw	WATER	REG	1_	grab	Υ	_x			_						_				
6M		-	30905-SW6M-030813	3/8/2013		w-sw	WATER	REG		grab				1	<u> </u>					_	\dashv		4		
6B	5.0	4.0	30905-SW6B-030813	3/8/2013	0910	w-sw	WATER	REG	1	grab	Υ	х								İ					
nquished by	_		MES Company			Received by	<i></i>						Compa	עי עי	ism	426	Condi	tion				Custod	y Sea	ils Intact	
Steward	. Yew	fuel	3/8/13 Date/Time 13:35		1-1	7/11	<u> </u>				Da	ate/Tin		_	13.1			r Tem	p.						
inquished by	1	<u></u>	Company	-		Received by	• ,	<u>-</u>		ļ ,		-1	Compa	עי	L	C.	Condi				~	Custod	y Sea	ils Intact	w
1 X 15 K	/		Date/Time	13/8/13	15:30	RI	w			3/	///	ate/Tin	,, ,					r Tem _l		0,9	,	<u>) </u>		Cl pH<2); 9 (HCl 4 Deg	

Pel Km 3/8/13 17:5

32: 3/8/13 1725

ant 10651 grp) 1374299 #6977981-8002

125 N	aster Labo w Holland Pil	ke	S		Н	one	ywel		Chain	Of C	usto	dy / /	4nal	ysis Re	quest							AESI Ref: COC#	41339.3348 30905-0308
	iter, PA 17605- 56-2300	-2425			Privileged &	Confiden	tiel	N			e	lame:		Baltimore				Dhann	T			Lab Proj # (SDG):	
amp	ling Co.:	Maryland	Environm	ental Service	EDD To:		kenneth.biles	@ch2m.co	m			ion of	Site:	BALTIMO	RE, MD			Phase: Samplin Program	Surface Samplin		ter	Lab ID	LLI
	Contact: (n	ame. co.	addres	s)	Sampler:	Amanda l	Penafiel; Racha	el Griner.	Maura Morr	is	1					T	T	Ť		T	T	Site ID	BALTIMO
	pher French				PO#	45000138					g Tolomogram	and Trestated and	3			***	+		11	7		Lab Job#	
	lumbia Road; M	lleyer 3					Time (TAT):		14		27 1740	Of 1, 14805,2										Authorized User:	Honeyw
	own, NJ 07962 mary Data To	kenneth t	nilos Sich 2i	n com:	ļ	Consultar	nt	-	CH2M		1								1 1				Excel & Text
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	e Receipt wledgement Te		olles äjch2r per äjcritig	m.com; en.com, bernice kidd:@ch2m.com,							۰	Ē	ε				1						
	ору То	Amy Klop			Fu	II Report 1	TAT:		28		8	9	min.				ł		1 1	ı	l		
oice	To:	Christoph	er French	- Dead							1	1	- F				ł						•
		Samo	le Identifi	cation	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Compo	P P	SW6010 Chromiun									Copyright ABBI: Version 8.6 Uncertherized coo	
L	ocation ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units		ug/L									Sampling Method (code)	Lab Sam Number
	7T	4.83	0.0	30905-SW7T-030813	3/8/2013	0912	w-sw	WATER	REG	1	grab	Υ	х										
	7M	-		30905-SW7M-030813	3/8/2013	-	w-sw	WATER	REG	l	grab		ł										
	7B	4.83	3.83	30905-SW7B-030813	3/8/2013	0914	w-sw	WATER	REG	1	grab	Υ	x							寸			
	8T	4.17	0.0	30905-SW8T-030813	3/8/2013	0916	w-sw	WATER	REG	1	grab	Υ	х										
	8M		_	30905-SW8M-030813	3/8/2013	-	w-sw	WATER	REG		grab												
Γ	8B	4.17	3.17	30905-SW8B-030813	3/8/2013	0918	w-sw	WATER	REG	1	grab	Υ	х			1				\exists			
	9T	3.75	0.0	30905-SW9T-030813	3/8/2013	0920	w-sw	WATER	REG	1	grab	~	x			T			11	1			
	. 9M	<u> </u>	_	30905-SW9M-030813	3/8/2013	_	w-sw	WATER	REG		grab									T			
1	9B	3.75	2.75	30905-SW9B-030813	3/8/2013	0922	w-sw	WATER	REG	1	grab	Υ	х										
	10T	4.92	0.0	30905-SW10T-030813	3/8/2013	0924	w-sw	WATER	REG	1	grab	Υ	х										
L	10M	<u> </u>	·	30905-SW10M-030813	3/8/2013	-	w-sw	WATER	REG		grab												
L	10B	4 92	3.92	30905-SW10B-030813	3/8/2013	0925	w-sw	WATER	REG	1	grab	Υ	х							1			
nqu	ished by			MES Company	1		Received by				T			Company	CHN	nucle	Cond	ition	T	10	Custody S	eals Intact	
A	mond	Per	The	3/8/13 Date/Time 13:35			71	31	1			D	ate/Tin	ne	3/03/	1	+	er Temp.	1	7			
linqu	ished by	1	U	Company	MES		Received by		0					Company		TE	Cond	ition	INTA	ज	Custody S	eals Intact	10
\mathcal{V}	15/14	V		Date/Time	3/8/13	1230	Kr	1			2/	4 P.	ate/Tin	[%]			Coole	er Temp.	6.9	(,) [*]		
_	, , (r; Specify):					0 (none); 1 (4 D	Des C); 2 (H	CI pH<2): 3 (HNO3 e	H<2): 4	(H2SC	4 =H<): 5 (NaOH	-LI- 13\- A	e /Nacou	Zn Anni		e04 (-44-2)	N 4 F	> CIV: 0	(HCl pH<2); 9 (HCl 4 De	C): 19 (HN)

lel. Km 3/4/13 17:0-

3/8/13 1725

acet 10651 gra) 1374300 #6978003-25

Lancaster Lab 425 New Holland P Lancaster, PA 17605	ike	es		Н	one	ywe		Chain	Of C	usto	dy / /	Anal	ysis	Req	uest								ÇÖ	SI Ref: C#	41339.3350 30905-0308
17) 656-2300				Privileged (Confiden	in the second se	N	1		Site	lame:		Baltin	nore				Phase				· · · · · · · · · · · · · · · · · · ·	Lat	Proj # (SDG):	
ampling Co.:	Maryland	d Environm	nental Service	EDD To:		kbiles@omiir	ic.com	*			tion of	Site:	BALT	IMORI	E, MD		110		nng	Surfac Sampl	e Wa ing	ter	Lat	ID	LLI
lient Contact: (ı	name, co.	, addres	ss)	Sampler:	Amanda F	enafiel; Rach	el Griner, M	laura Momis	<u> </u>		-				Т	T	T					T	Site	ID	BALTIMO
ristopher French				PO#	45000138	06				Total Con-	Name of Street	3	100					1 1	- W - 11.				Lat	Job#	
1 Columbia Road; I				Analysis T		Time (TAT):	ļ	14		27.4.25	COMPC WELL												Aut	horized User:	Honeyw
orristown, NJ 07962 eliminary Data To		biles @ ch2	Pm com:		Consultar	K .	 	CH2M		ł															Excel & Text
ample Receipt cknowledgement I	kenneth kenny klop	biles (i) critic pper <u>á</u> critic	ran com: harnica láddið ch9m com							8	Semple	m,									ŀ		Tex	l & Excel File Drive	Order
rd Copy To	Amy Klo		- Parad	Fi	ıll Report 1	AT:	<u> </u>	28		ğ	3	romi						1					-		
ivolce To:	Christop	ner French	1				L	•	,	夏	4	ပ်		1											
		ple Identif	lication	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Comp	ğ	SW6010 Chromium											2.5	right ABBL: Varsion nauthorized use ly problibited.	
Location iD	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units							I					l	Sa	mpling Method (code)	Lab Sam Number
11T	5 58	0.0	30905-SW11T-030813	3/8/2013	6930	W-SW	WATER	REG	1	grab	Υ	х													
11M		_	30905-SW11M-030813	3/8/2013	-	w-sw	WATER	REG	1	grab								1 1				- 1			
11B	5.58	4.58	30905-SW11B-030813	3/8/2013	0932	w-sw	WATER	REG	1	grab	Υ	х										1			
12T	6.08	0.0	30905-SW12T-030813	3/8/2013	0934	w-sw	WATER	REG	1	grab	Υ	х			_ l						Ī				
12M	_		30905-SW12M-030813	3/8/2013	_	w-sw	WATER	REG		grab															
12B	6.08	5.08	30905-SW12B-030813	3/8/2013	0936	w-sw	WATER	REG	1	grab	Υ	х													
13T	6.25	0.0	30905-SW13T-030813	3/8/2013	0937	w-sw	WATER	REG	1	grab	Υ	х						\prod				T			
13M	-		30905-SW13M-030813	3/8/2013		w-sw	WATER	REG		grab															
13B	6.25	5.25	30905-SW13B-030813	3/8/2013	0938	w-sw	WATER	REG	1	grab	Υ	х													
14T	6.5	0.0	30905-SW14T-030813	3/8/2013	0940	w-sw	WATER	REG	1	grab	Υ	х													
1 14M			30905-SW14M-030813	3/8/2013	_	w-sw	WATER	REG		grab					\perp						Ì				
2 14B	6.5	5.5	30905-SW14B-030813	3/8/2013	0941	w-sw	WATER	REG	1	grab	Υ	х				\perp									
elinquished by			MES Company	I		Received by		,		Г			Com	pany	Ulm	421	Con	dition			I	Custod	y Seals	ntact	<u> </u>
Imardi	Pen	Rig	3/5/13 Date/Time(3:35			1/03	$\langle I \rangle$				D	ate/Tin	ne		3/04	13 13	35 C00	ler Temp).		7				<u> </u>
inquished by	00		Company	421		Received by	,,,,,	·					Com	pany		II		dition		M	ref	Custod	y Seals	ntact	NO
JCH 151	(V)		Date/Time	3/08/15	15-50	Kin	~			2	/\D	ate/Tin	ne ,	امد			Coo	ler Temp).	0,9	-1.) *			
eservatives: (Other	or; Specify)	:				0 (none); 1 (4 l (pH<2), 4Deg (Deg C); 2 (H C): 11 (4C N	Ci pH<2); 3 ((HNO3 p	H<2); 4	(H2SC		2); 5 (N	InOH pl	1>12); 6 Na252	(NaOl-	I, Zn Ac	etate); 7 (H2S()4 (pH+	2), 4 (Deg C))	8 (HCI p	H<2); 9 (HCl 4 D	e C); 10 (HNC
	1		Hed Kul	3/1/	,/]				-								,		$\overline{}$				dr	3 172	5

acet 10651 ghp 1374300 # 6978003-25

ancaster Lab 125 New Holland P		S		Н	one	ywel		Chain	Of C	usto	dy/#	Anai	/sis F	Regu	est								AESI Ref: COC#	41339.335 3
incaster, PA 17605						3110.						•												
17) 656-2300				Privileged &	Confident		N			Site N	lame:		Baltim	ore	Sala raiska			Phase:					Lab Proj # (SDG):	
ampling Co.:	Maryland	Environme	ental Service	EDD To:		kenneth.biles	@ch2m.co	m	<u>.</u>	Locat	ion of	Site:	BALTI	IORE,	MD	eurcina nie	4	Samplir Progran	ng S	urface amplin	Wate a	r	Lab ID	LLI
ient Contact: (ı	name, co.	, addres:	s)	Sampler:	Amanda F	enafiel, Racha	ael Griner,	Маига Могт	is														Site ID	BALTIMO
ristopher French				PO#	45000138		,			Contract of the	~	3							1	1	Ţ		Lab Job#	
1 Columbia Road; I				Analysis T	urnaround Consultan	Time (TAT):	 	14 CH2M															Authorized User:	Honeyv
eliminary Data To	kenneth.t	oles <u>a</u> ch2r	III. CÓM. on com, hornico kielta ch2m com:								-		- 1										Text & Excel File Drive	Excel & Te:
mple Receipt	kenneth t	oiles <u>(i)</u> ch2r	m.com:								F							1		- 1		-		Ortier
knowledgement I rd Copy To	Amy Klop		en com, bernice kidd@ch2m com,				 			2												1	1	
voice To:	نىم ئىمما	ner French		FL	III Report T	AI:		28		Ĭ		ğ										-		•
	Samu	le Identifi	cation	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	odwo	E PRO	SW6010 Chromium											Copyright ABB: Version 5.0 Versiberies use	
	Start	End	Cation	- Auto		1,7,12		Turpose	OOM.	Г		9	+		+	100		A CONTRACTOR OF THE PARTY OF TH	+	-	+	+		
Location ID	Depth (ft)	Depth (ft)	Field Sample ID							Units					\perp								Sampling Method (code)	Lab San Numbe
15T	6.58	0.0	30905-SW15T-030813	3/8/2013	0942	w-sw	WATER	REG	1	grab	Υ	х		\bot					\perp	\perp	\perp	\perp		
15M		_	30905-SW15M-030813	3/8/2013		w-sw	WATER	REG	<u> </u>	grab						<u> </u>						$oldsymbol{\perp}$		
15B	6.58	5.58	30905-SW15B-030813	3/8/2013	0944	w-sw	WATER	REG	1	grab	Υ	х		\perp			Ш			\perp	\perp			
16T	8.75	0.0	30905-SW16T-030813	3/8/2013	0948	w-sw	WATER	REG	1	grab	Υ	х							\perp	\perp	\perp			
16M	<u></u>	-	30905-SW16M-030813	3/8/2013		w-sw	WATER	REG		grab														
16B	8.75	7.75	30905-SW16B-030813	3/8/2013	0950	w-sw	WATER	REG	1	grab	Υ	х												
177	6.0	0.0	30905-SW17T-030813	3/8/2013	0951	w-sw	WATER	REG	1	grab	Υ	х		\perp	$oldsymbol{ol}}}}}}}}}}}}}}}}}$									
17M		_	30905-SW17M-030813	3/8/2013		w-sw	WATER	REG	<u> </u>	grab								\bot		\bot	\perp	\perp		
17B	60	5.0	30905-SW17B-030813	3/8/2013	0953	w-sw	WATER	REG	1	grab	Υ	х		\perp	\bot						\perp			
18T	11.58	0.0	30905-SW18T-030813	3/8/2013	0956	w-sw	WATER	REG	1	grab	Υ	х								\perp				<u> </u>
18M	11.58	5 29	30905-SW18M-030813	3/8/2013	0958	w-stw	WATER	REG	1	grab	Υ	х		\perp							\perp			
2 18B	11.58	10.58	30905-SW18B-030813	3/8/2013	1000	w-sw	WATER	REG	1	grab	Υ	х								\perp	\bot	\bot		<u> </u>
linquished by			MES Company	1		Received by				ľ			Comp	any ∠	wn:	HALL	Condi	tion	T		C	ustody	Seals Intact	
Imach	Pene	and	3/8/13 Date/Time 3:35			Me	511				D	ate/Tin	ne	Q	loelis	BE	Coole	r Temp.						
linquished by			Company Date/Time	+	6-30	Received by					, ,	oto/Ti-	Comp	any	Ci	I	Condi				ctc	ustody	Seals Intact	ho
1LV 15A	1		Date/Time	3/8/(3	15	LAD		,		L <i>3</i> (HB	15	70				COOIG	r Temp.	\perp	9.4-	(.0)			
reservatives: (Oth	ا er; Specify)	:				0 (none); 1 (4 ((pH<2), 4Deg (Deg C); 2 (H C); 11 (4C N	ICI pH<2); 3 (InOH (pH>12	(HNO3 # 2) & Asox	H<2); 4 wbic Ac	(H2SC id); 12 (4 pH< 4C H2	2); 5 (Ne SO4 (pH	OH pH (<2) & (>12); 6 (12820 3	NaOH, 2); 13 (Z	Zn Acete In Acete	ato); 7 (H to); ep (d	2804 pecia	(pH<2 I inetruc), 4 Do ctions)	eg C)); E	(HCI pH<2); 9 (HCI 4 D	og C); 10 (HN
		0.4	/ .																					
		11.0	Km 3/41	13 17	T												2	2.50	_	2	1.	1.0	1725	

Page 28 of 29

acet 10651 grp 13 74301 #6978026-43

	ncaster Labo		s					•	Chain	Of C.		45 . / /	A		D											41339.33553
	New Holland Plk					one	ywel		Chain	Of C	usto	ay i i	-vnai	Aziz	Keq	Jest									COC#	30905-030813-5
,	656-2300	(463)			Privileged &	Confident	iei	N						Baltin	ore	grawni.	roma to sources		Db	Π				┪	Lab Proj # (SDG):	
800	npling Co.:	Landond	Environm	ental Service	EDD To:		kenneth.biles(gch2m.coi	m		Site N	ion of	Site	BALTI	MORE	, MD	* H. 12 / F W. 12		Phase Sampl Progra	ing :	Surfac	e Wa	ter	ᅥ	Lab ID	LLI
					0	A	enafiel; Racha	al Criner	Marina Manu		2000	.0 0.	0	T	T	T	T	T	T		Samu	1	Т	┪	Site ID	BALTIMORE
	nt Contact: (na stopher French	ame, co.,	addres	s)	Sampler: PO #	45000138		ei Gnner,	Maura Mon	is	n is meditate	entra prom	3		-	77.4	1000	+		na ra		7,0	+	-	Lab Job #	
	Columbia Road; M	eyer 3					Time (TAT):		14		***************************************	e South self and a				1	+							_	Authorized User:	Honeywell
	istown, NJ 07962					Consultar	t		CH2M		1						- [- 1	- 1					
Preli	iminary Data To	kenneth b	oiles a ch2 Sor≉ chtia	m.com; on com, hornica kidst@ch?m.com;								6.2					į	1		Ì	-				Text & Excel File Drive	Excel & Text File Order
Sam	ple Receipt	kenneth.b										Ē	_								- 1	ŀ		ı		
	nowledgement To I Copy To			en.com, bernice kidd@ch2m.com, fills Street; Baltimore, MD 21231	6	II Donom T	·AT.	<u> </u>	28		ğ	9	Ē							- 1	ł		- [
	ice To:	Christoph			Fu	II Report T	AI:		20		1	•	Chro								ı	- 1				
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ŀ		Samo	le Identifi	ication	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Ş	2	SW6010	l	- 1	- 1									S.A Ungutherland use pickely probblish.	
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units														Sampling Method (code)	Lab Sample Numbers
1	19T	608	0	30905-SW19T-030813	3/8/2013	1001	w-sw	WATER	REG	1	grab	Υ	х				Ţ									
2	19M			30905-SW19M-030813	3/8/2013		w-sw	WATER	REG		grab															
3	19B	6.08	5.08	30905-SW19B-030813	3/8/2013	1002	w-sw	WATER	REG	1	grab	Υ	х					1_								
4	20T	2.33	0	30905-SW20T-030813	3/8/2013	1004	w-sw	WATER	REG	1	grab	Υ	x			\perp		$oldsymbol{ol}}}}}}}}}}}}}}}}}$		_	$ \bot $	_		\dashv		
5	20M		l	30905-SW20M-030813	3/8/2013		w-sw	WATER	REG		grab															
6	20B	2.33	1.33	30905-SW20B-030813	3/8/2013	1006	w-sw	WATER	REG	1	grab	Υ	х													
7	Cent T	5.5	0	30905-SWCentT-030813	3/8/2013	0847	w-sw	WATER	REG	1	grab	Υ	x	Ш	\dashv		1		\sqcup	_		_	_			
8	Cent M	<u> </u>	ļ	30905-SWCentM-030813	3/8/2013		w-sw	WATER	REG		grab					\perp	\bot	<u> </u>		_	_	_	_	_		
9	Cent B		4.5	30905-SWCentB-030813	3/8/2013	0849	w-sw	WATER	REG	1	grab	Υ	x	Ш	_	4	\bot	_	\sqcup	_	_	\dashv	\dashv	_		
10	LADY T	4.93	0	30905-SWLadyT-030813	3/8/2013	0842	w-sw	WATER	REG	1	grab	Υ	х	\sqcup	_	+	4	-	\sqcup	4	\dashv	_	_			
11	Lady M	1.03		30905-SWLadyM-030813	3/8/2013	2511	w-sw	WATER	REG		grab	<u> </u>		\vdash	\dashv	+	+		\vdash	4		\dashv	\dashv	\dashv		
12	LADY B	4.83	3.83	30905-SWLadyB-030813	3/8/2013	0844	w-sw	WATER	REG	1	grab	Υ	х	Li				<u></u>	Ш							
Reli	nquished by		۸	MES Company	i .		Received by							Com	pany	WAA	HELL	Conc	ition				Custod	ly Se	als Intact	
7	amadi	Pan	X.S	3/8/13 Date/Time 3:35			W.	Al				D	ate/Ti	me		3/00	B 133	100	er Temp).						
Reli	nquished by	4)	Company	1 2012		Received by							Com	· ·	t	L.F	Conc			int	YL.	Custod	ly Se	als Intact	10
L^{Z}	11/15/	1		Date/Time	3/8/13	1530	K	<u> </u>			_ 2	12	ate/Ti	me /」、	ی ر			Cook	er Temp). 	0.9	<u>`-(,)</u>	ט ֿ			
Pres	servatives: (Other	: Specify):					0 (none); 1 (4 E (pH<2), 4Deg (Deg C); 2 (H C); 11 (4C N	ICI pH<2); 3 (InOH (pH>12	(HNO3 p	H<2); 4	(H2SC)4 pH< (4C H2	2); 5 (N SO4 (e	aOH pł H<2) &	(>12); (Na282	(NeOH,	Zn Aos	tate); 7	H2SC)4 (pH: iel inet	<2), 4	Deg C)) s)); 8 (+	ICI pH<2); 9 (HCl 4 De	C); 10 (HNO3
				~ 3/8/1) (7.	-										(<u></u>		ſ	1		١	725	

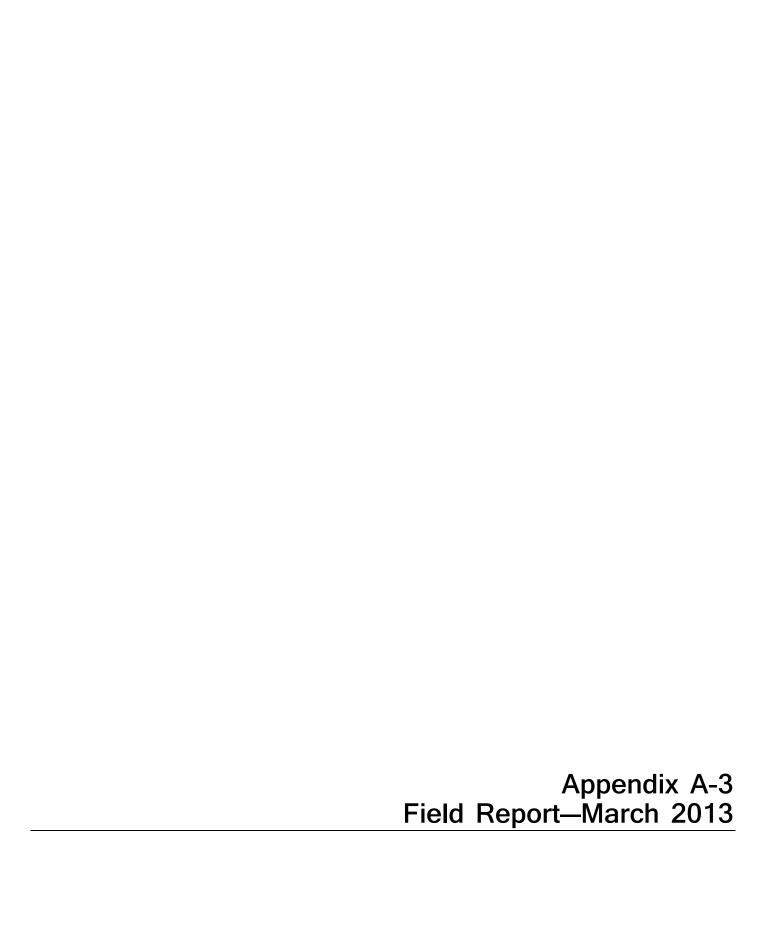
Page 22 of 24

acet 10651 ghp 1374301 #6978026-43

	ncaster Labo		s			ODA	ywel		Chain	Of C	usto	dv / 4	Anal	vsis F	Rea	uest									AESI Ref:	41339.33576
	caster, PA 17605-2	-				VIIC	<i>y</i> ••••					, , ,		, I												30905-030813-6
(717) 656-2300				Privileged &	Confiden	tiei	N			Site N	lame:		Beltim	ore	e e e e e e e e e e e e e e e e e e e		*******	Pha	ie:					Lab Proj # (SDG):	
San	npling Co.:	Maryland	Environm	nental Service	EDD To:		kenneth.biles@	@ch2m.co	m			ion of	Site:	BALTE	MORE	, MD	10 10	(Controller		pling	Surfa Samr	ce Wa lina	iter		Lab ID	LLI
Clie	ent Contact: (na	ame, co.,	, addres	ss)	Sampler:	Amanda F	Penafiel; Racha	ael Griner,	Maura Morr	is							T								Site ID	BALTIMORE
	stopher French				PO#	45000138					(1) 10 mm	-grup-ameng	3						1	F27 (17 167)	OK VIDE	27.11.7.70			Lab Job #	
	Columbia Road Me istown, NJ 07962	eyer 3				urnaround Consultar	Time (TAT):	ļ	14 CH2M							ĺ	1						1		Authorized User:	Honeywell
	iminary Data To					CONSUITAL	ц		CHZM			~					ł	ŀ					1		Text & Excel File Drive	Excel & Text File
Sam	ple Receipt	kenneth.b		son com: bornice birld & ch2m com: fm.com.				1				å			1	ŀ		İ					1			Order
Ack	nowledgement To	amy klopp	per@critig	gen.com, bernice kidd.g.ch2m com,				<u> </u>			9	8	Ę					-								
Hard	d Сору То	Amy Klop	per		Fu	II Report	TAT:	ļ	28		ğ	80 Pe	romi			1	-	1						- 1		
Invo	lce To:	Christoph	er French					ļ	, -			£	ö			İ		1						1		
		Samp	le Identif	ication	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Comp	P.	SW6010 Chromium												Copyright ASSE: Version I.O Venezhorinet use skielly probbiled.	
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID	. 1						Units		ug/L											, , ,	Sampling Method (code)	Lab Sample Numbers
1	51	5.92	Ö	30905-SWD1-030813	3/8/2013	0906	w-sw	WATER	FD	1	grab	Υ	х													
2	IUB	4.92	3.42	30905-SWD2-030813	3/8/2013	0926	w-sw	WATER	FD	1	grab	Υ	х													
3	15T	6.58	0	30905-SWD3-030813	3/8/2013	0944	w-sw	WATER	FD	1	grab	Υ	х													
4	206	2.33	1.33	30905-SWD4-030813	3/8/2013	1008	w-sw	WATER	FD	1	grab	Υ	х													
5	FIELDQC			30905-SW-FB1-030813	3/8/2013	0855	BLKWATER	WATER	FB	1	grab	N	х													
6	FIELDQC			30905-SW-RB1-030813	3/8/2013	0928	BLKWATER	WATER	EB	1	grab	N	х													
7	FIELDQC			30905-SW-RB2-030813	3/8/2013	1008	BLKWATER	WATER	EB	1	grab	N	х													
8	FIELDQC			30905-SW-RB3-030813	3/8/2013		BLKWATER	WATER	EB	1_	grab	N	х													
9									<u> </u>							\perp										
10					<u></u>																					
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12			<u> </u>				ļ	<u> </u>			<u> </u>					\perp	\perp			<u> </u>						
Reli	nquished by			MES Company			Received by				<u> </u>			Comp	any	CNA	nuo	Cor	dition				Custo	dy Se	als Intact	<u> </u>
7	mand	Ron	ho	3/8/13 Date/Time 3:35			2/1	111				D	ate/Tir	ne	\rightarrow		2 /3:	_+	ler Ter	np.			-			
Reli	nquished by	- (1	Company	CHAN	HELL	Received by	- MA						Comp	_	LL			dition		into	14	Custo	dy Se	als Intact	Nο
	11/5/			Date/Time	3/08/13		K.	11			3/	6/1	ate/Tir	ne ;) o				Coc	ler Ter	np.	0.	1-1	$\mathcal{O}^{^{\mathfrak{r}}}$			
Pres	servatives: (Other;	· Specify)					0 (none); 1 (4 E (pH<2), 4Deg (Deg C); 2 (H	CI pH<2); 3 (HNO3 p	H<2); 4	(H2SC)4 pH<	2); 5 (Ne	OH pi	1>12); ((NaOl	I, Zn Ac	etate);	7 (H2S	04 (pł	(<2), 4	Deg C))); 8 (ł	(HCl 4 Di	e C); 10 (HNO3
		<u> </u>		~ 3/H/2	17:	υ -				, =, ==					·, -	<u>-</u>		2			1	1		۱^	725	

Page 23 of 24

ZZ: 3/4/13 1775



BALTIMORE INNER HARBOR

SURFACE WATER MONITORING 1st Quarter 2013

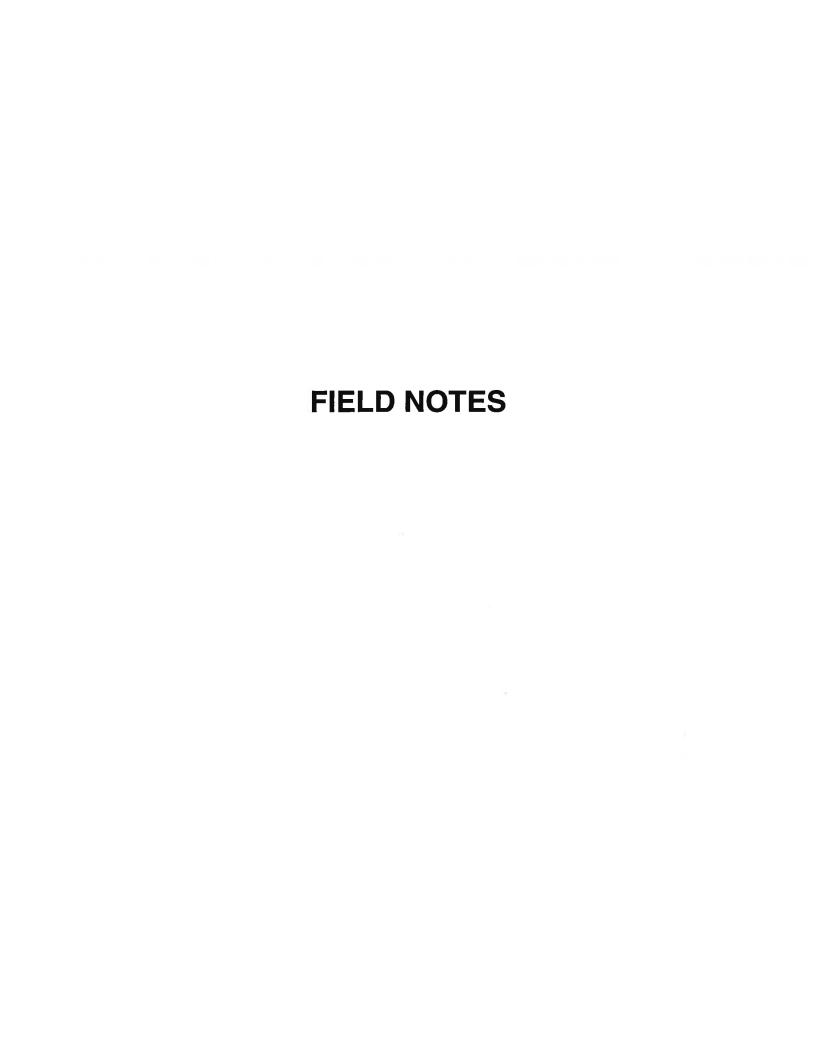
March 8, 2012

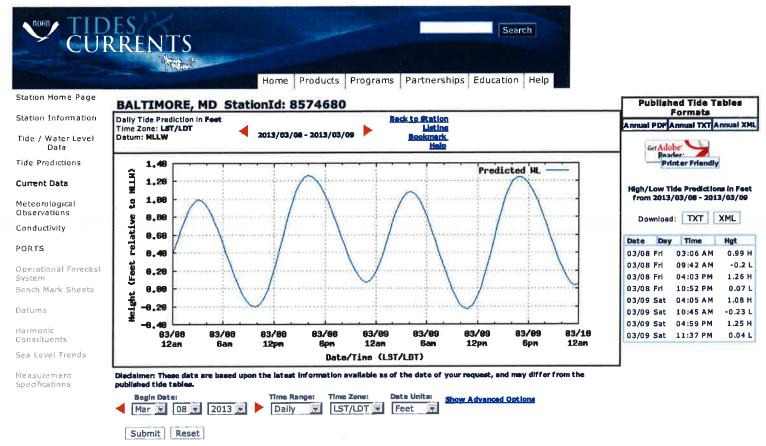




METER CALIBRATION LOG

ROJECT_				Cont	tinued From Page	
ote	Tine	Netter	Butter	ox Co	nments:	
3/8/13	0730	YSI 63	7,4,10 A	P Part	Surface u	Jater
					7.	
in the end of	90000	}: 1735€) NG Z.		(3)	<u> </u>	
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				Read and Understoo		ntinued on Page





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Revised: 10/28/2009

NOAA / National Ocean Service

BIH Surface H20 Sampling Date: 3/8/13 Samplers: Amanda Peñafiel, Rachel Eviner, Maura Morrès Boat Capt: Town Humbles Weather Conditions: Partly Cloudy Upper 30s, windy Low Tide & 9:42 9:42 PH Int Depth to Sample Time Temp Sample Bottom(+1) deptn(+1) 17.06m. 86 7.92 4.3 0842 411011 311010 LadyT 19.48 RG 49 7.79 0844 311011 4'10" Lady B 17.14ms RG 7.80 5.3 0847 416110 51611 Cen+T 26 1771.45 4.7 0849 7.75 4"6" 51611 Cent B 15.07mg RG 7.84 3.1 0852 51511 3.7 18.95mi RG 7.69 4.1 0554 415" 51511 3 B RG 15.5 m 12.7 8.61 0875 FB RG 7.49 4.9 17.2241 0857 6181 47 RG 4.6 164.8us 7.43 2 8" 0859 6'8" 43 P.G 18.41ms 7.42 4.4 21111 09 07 ST RG 44 9.78 mg 7.41 0904 41111 5"11" 5 B RG 4.4 Diole 7.41. 18.86ms 5111" STD 0 RG 4.4 7:42 20.1145 0902 40 6 282.24 26 4.5 0910 7.44 41 LeB

BIH Surface HOSamp (AP, RG, MM) 3/8/13

ample	Derth to 1	Sample	ا ا	- 11	1-	SP	701
ID	bottom(&+)	depth(Ft)	time	PH	Temp	Spand	Int.
			0912				
77	4,10,1	0	09	7.43	4.4	20.27 ms	RG
			0914				1 1
78	4' 10"	3'10"		7.43	4.7	9.69 ms	RG
8 T	4'2"	0	0914	7.43	4.4	20.08 ms	RG
					1 1 1	20.38ms	8 (a) 2 (a)
83	4.511	31211	0818	7.41	4.0	2.12.	RG
					3 7 0		1 1 N
97	3'9"	0	0920	7.42	4.5	21.21 mg	RG
	1 1 (4) (4)	5 2 1					2-
96	31911	2'9"	0922	7.39	4.le	20.71 ms	RG
		1 7 1		\$ 1 2		.3	
10 T	4414	6	0924	7.40	4.5	21.48mg	29
10B	4'11"	3'11"	0925	7.40	4.7	21.3 ms	RG
P4 : 4			1 1	1 1 2			
LOBD.	41111	3'11"	0920	741	4.8	21.26 ms	RG
1 1				md Q			00
RB1			0928	8.49	11.5	3.945	RG
	1 1 1					0176	Oc.
UT	51711	0	0936	7.19	5.1	21.28ms	RG
		117/1	.620		1 1 1		DC.
UB	517"	4'7"	0932	7.24	4.6	20.14 24	RG
12 7	U' 1 ³¹		2024		4.6	21.41 mg	RG
127	417	0	0934	7.20	1.0	21.71 mg	λ.9
12B	الالالا	5'11'	0936	2.17	4.5	20.71 ms	26
120	J. G. [1	3 //	0.120	LIL (20.11 100	24
137	61311	0.	0937	7.24	4.5	21.44mg	RG
	6 3		0-137				1-7
138	le'3"	5'3''	0938	7.lle	4.2	21.55mg	RG
	U 3	<i>J J</i>	0138			7 1 1	7
147	u 1 611	D	०१५०	7.22	4.4	21.31mg	RG
The same	Q Q.1		0110	1.22		21.114	
14B	6'61	81611	0941	7.19	4,3	21.4 mg	Rep
MILE TO SERVICE STATE OF THE PERSON STATE OF T							square = _

BIH S	Wface	HOD Sa	mp (1	tr, KG, M	(M)	3/8/13	
							1 1 2
Sample ID	Deptn-to Bottom(ft)	Sample depth(ft)	time	PH	temp.	Sprand	Int
		4	0942	7.27	44	21.36 mg	R6
157	6'7"	6	0112	4 1 1	* * 2		
157D	6'7"	٥	09 44	7.24	4.3	13.61ms	RG
158	6'7"	517"	0945	7.25	4.1	11.03 ns	RG
No T	81911	D	0948	7.28	4.8	10,1745	RG.
ll B	81911	719"	0950	רק.ד	43	20.67ms	RG
177	Le'	D	0951	7.27	4.4	20.42	R G
178	(a)	51	0953	7.27	4.3	21.63m	RG
187	ויליון!	O	7.27	7.27	4.6	21.24 ms	80
1874	111711	5'3"	ዕኅናያ	7.28	4.5	10.592	RG
18B	1(17"	10'7"	1000	7,36	4.4	21.68ms	RG
197	61111	0	1001	7.28	4.4	21.62ms	RG.
198	6'1"	5'1"	1002	7.27	4.3	21.8 ng	RG
20 T	214	0	1004	7.49	4.5	W.99m	P67
20 B	21411	11411	1004	7.28	4.7	18.35ms	R6
20BD	21411	1'4"	1008	7.28	4.6	21.Zmj	RG
R B 2			1010	8.90	10.0	49.745	R4
			1			- \ ·	
			K 895				2 7
1.3 (4 (4)							1 87

CHAIN of CUSTODY

425 N	easter Labo	(e	s	N ALEXANDER	Н	one	ywel		Chain	Of C	usto	ly / A	Analy	/sis R	Reque	est								41341.53632 30905-030813-
	ster, PA 17605- 556-2300	2425			Deirilaged 8	Confident	ial		ı —			-		Baltimo									Lab Proj # (SDG):	
		_			Privileged &	Connaeni		N			Site N	ame:	-			10			ase: mpling	Surfac	e Water	r	Lab ID	
amı	oling Co.:	Maryland	Environm	ental Service	EDD To:		kenneth,biles(@cn2m.cor	n 		Locat	on of	Site:	BALTIM	ORE, N	טוו		Pro	gram	Sampl				
lien	t Contact: (na	ame, co.	, addres	s)	Sampler:	Amanda F	enafiel; Racha	ael Griner, l	Maura Morr	is													Site ID	BALTIMORE
	pher French				PO#	45000138					Preserv	ative	3							\Box			Lab Job#	
	olumbia Road M	eyer 3					Time (TAT):		14 CH2M			×											Authorized User:	Honeywell
	inary Data To	kenneth l	oiles@ch2	m com:		Consultan	t		CHZM		1	~						- 1					TO THE POWER	Excel & Text File
ampl	e Receipt	kenneth.	ner@critic	en com: hemice vidd@ch?m com: m.com;								Filtered Sample											Text & Excel File Drive	Order
		Amy Klop		en.com; bernice.kidd@ch2m.com;							e l	Sa	ji										1	
	Сору То	LOCAL CH	CA CAPUTAL	Desi	Fu	II Report T	AT:		28		te/G	erec	hron										1	
IVOIC	e To:	Christoph	ner French						r	r —	joo	Ħ	5											
			ole Identifi	cation	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field	SW6010 Chromium										Copyright AESI: Version 5.0 Unauthorized use strictly prohibited.	
L	ocation ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units		qdd										Sampling Method (code)	Lab Sample Numbers
1	ЗТ	5.5	6.6	30905-SW3T-030813	3/8/2013	8852	W-SW	WATER	REG	1	grab	Υ	х											
2	ЗМ	_	-	30905-SW3M-030813	3/8/2013	-	W-SW	WATER	REG		grab													
3	3B	5.5	4.5	30905-SW3B-030813	3/8/2013	0854	W-SW	WATER	REG	1	grab	Υ	х											
4	4T	6.67	0.0	30905-SW4T-030813	3/8/2013	0857	W-SW	WATER	REG	1	grab	Υ	х											
5	4M	-	-	30905-SW4M-030813	3/8/2013		W-SW	WATER	REG		grab													
6	4B	6.67	561	30905-SW4B-030813	3/8/2013	0859	W-SW	WATER	REG	1	grab	Υ	х											
7	5T	5.92	0.0	30905-SW5T-030813	3/8/2013	1902	W-SW	WATER	REG	1	grab	Y	х											
3	5M	-	-	30905-SW5M-030813	3/8/2013	_	W-SW	WATER	REG		grab													
)	5B	592	4.92	30905-SW5B-030813	3/8/2013	0904	W-SW	WATER	REG	1	grab	Υ	х		_									
0	6T	5.0	0.0	30905-SW6T-030813	3/8/2013	3908	W-SW	WATER	REG	1	grab	Υ	х		_				-					
1	6M	F 3	4.0	30905-SW6M-030813	3/8/2013	-	W-SW	WATER	REG		grab		_		+	-	-		-		\perp	_		
2	6B	5.0	4.0	30905-SW6B-030813	3/8/2013	0910	W-SW	WATER	REG	1	grab	Υ	Х											
elinq	uished by		0.01	MES Company	1		Received by							Compa	iny 👝	12111	TI C	ondition	1		Cu	ıstody S	Seals Intact	
C	lunande	Pen	fuel	3/S/13 Date/Time 13:35			2/1	SAI				Da	ate/Tin	ne ့	3/8	413 B	JS C	ooler T	emp.					
elinqu	ished by			Company			Received by	1						Compa	iny		_	ondition			Cu	ıstody S	Seals Intact	
				Date/Time								Di	ate/Tin	ie			C	ooler T	emp.					
rese	vatives: (Other	Specify):	1 3				0 (none); 1 (4 E (pH<2), 4Deg C	eg C); 2 (Hel); 11 (4C N	Cl pH<2); 3 (aOH (pH>12	(HNO3 p	H<2); 4 orbic Aci	(H2SO	4 pH<2); 5 (NaC)H pH>1	2); 6 (Na 2S2O3);	OH, Zn A	Acetate	; 7 (H2S	O4 (pH<	(2), 4 De	g C)); 8	(HCl pH<2); 9 (HCl 4 De	g C); 10 (HNO3

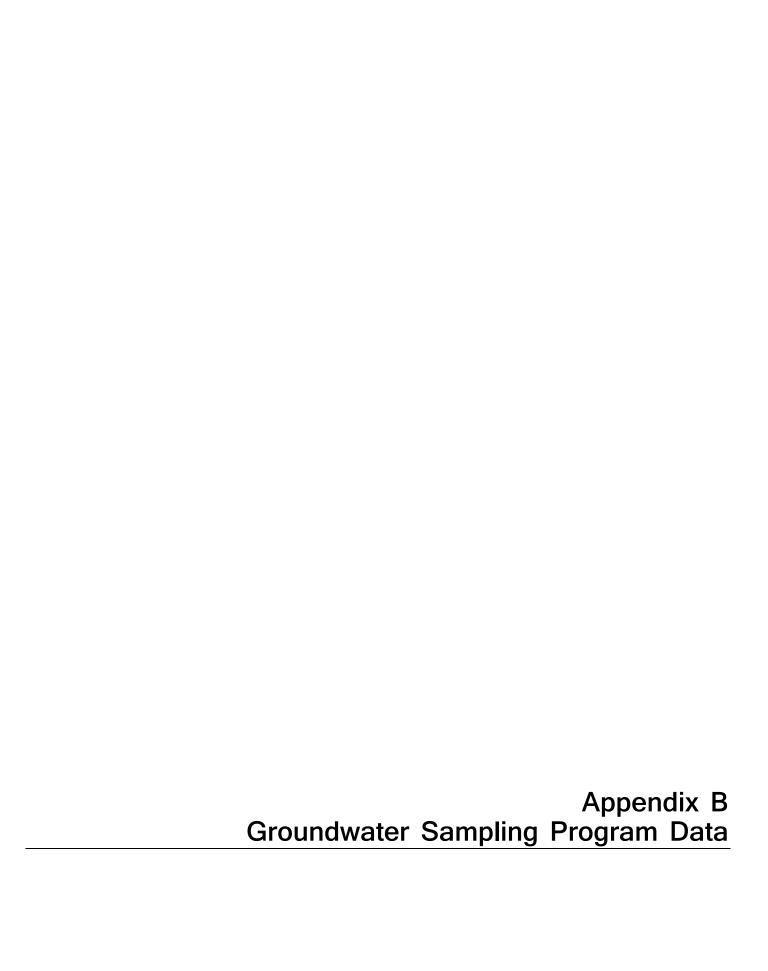
242	ncaster Lab 5 New Holland P caster, PA 17605	ike	es		Н	one	ywel		Chain	Of C	usto	dy / /	Anal	ysis R	eques	st								41339.3348 30905-0308
) 656-2300				Privileged 8	Confiden	tiai	N			Site N	lame.		Baltimor	9			Phas	<u></u> T	-		_	Lab Proj # (SDG):	
San	npling Co.:	Maryland	l Environr	mental Service	EDD To:		kenneth.biles	@ch2m.cor	n		1	ion of	Site	BALTIMO	ORE, MC)			ling §	Surface	Water	_	Lab ID	LLI
	ent Contact: (r				Sampler:	Amanda F	Penafiel; Racha	ael Griner. I	Maura Morri	is				1	T	\top	T	riog	an s	ampun	<u> </u>	T	Site ID	BALTIMOI
	stopher French				PO#	45000138					Preser	vative	3										Lab Job#	
	Columbia Road; f				Analysis T	urnaround Consultar	Time (TAT):		14 CH2M														Authorized User:	Honeywe
_	liminary Data To	kenneth.	biles@ch			Consultar	п		CHZIVI	_	1	٥											Text & Excel File Drive	Excel & Text
am	ple Receipt		biles@ch	gen com lhernice kidd@ch2m com 2m.com;	9						1												Text & Excel File Drive	Order
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,40	100 10.	Statistop	IST I TOTAL		1	T	I		-		Composite/Grab	Field Filtered Sample	SW6010 Chromium										L	
		Samı	ole Identi	fication	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Com	ield	900					Н				1	Copyright AESI: Version 5.0 Unauthorized use	
	Location ID	Start Depth	End Depth		J. Varia		Name:				Ť		W.								+		strictly prohibited.	
	Location in	(ft)	(ft)	Fleid Sample ID					T TV		Units		ng/L										Sampling Method (code)	Lab Samp Number
Ц	7T	4.83	0.0	30905-SW7T-030813	3/8/2013	0912	w-sw	WATER	REG	1	grab	Υ	х											
	7M	-	-	30905-SW7M-030813	3/8/2013	-	w-sw	WATER	REG		grab													
,	7B	4.83	3.83	30905-SW7B-030813	3/8/2013	0914	w-sw	WATER	REG	1	grab	Υ	×						\neg		1	\top		
	8T	4.17	0.0	30905-SW8T-030813	3/8/2013	0916	W-SW	WATER	REG	1	grab	Y	x						\neg	\top	1	†		
5	8M	-	-	30905-SW8M-030813	3/8/2013	-	w-sw	WATER	REG		grab								\neg	\top	1	T		
,	8B	4.17	3.17		3/8/2013	0918	W-SW	WATER	REG	1	grab	Υ	х							\top	1	T		
7	9Т	3.75	0.0	30905-SW9T-030813	3/8/2013	0920	W-SW	WATER	REG	1	grab	Y	x					\vdash	\neg	\neg	+	T		
3	9M		_	30905-SW9M-030813	3/8/2013	-	w-sw	WATER	REG		grab	-	$\hat{}$						\dashv	+	+-	+		
9	9B	3.75	2.75		3/8/2013	0922	W-SW	WATER	REG	1	grab	Υ	х		+		+		\dashv	+	+	+		
0	10T	4.92	0,0	30905-SW10T-030813	3/8/2013	0924	w-sw								+		+-	+	-	+	+	+		
1	10M	-	v	30905-SW10M-030813	3/8/2013	-		WATER	REG		grab	Y	Х		+	-	+	\vdash	+	+	+	+		
2	10B	4 92	3.92			0925	W-SW W-SW	WATER	REG		grab		х		+		+	\vdash	+	+	+	+		
		1 1 10				10 1003		WATER	REG	-	grab	Υ							_					
_	nquished by	1	0 0	MES Company	3)		Received by		4					Compan	410	MUEL	Con	dition			Cust	tody S	Seals Intact	
	emond	rter	yful	3/8/13 Date/Time 13:35			71	13 N	1			Da	ate/Tin	ne	3/04	VIS B3	Cool	er Tem	p.					
elin	nquished by			Company Date/Time	y		Received by		V					Compan	y	17.5 7.5	Con	dition			Cust	tody S	Seals Intact	
				Date/Time								Da	ate/Tin	ne			Cool	er Tem	р.					
roe	ervatives: (Othe	ri Spenifii).					0 (none); 1 (4 D	Deg C); 2 (HC	CI pH<2); 3 (I	ниоз р	H<2); 4	(H2SO	4 pH<2); 5 (NaOl	1 pH>12)	; 6 (NaOH	Zn Ace	etate); 7	(H2SO4	(pH<2), 4 Deg (C)): 8 /	(HCl pH<2); 9 (HCl 4 Dec	C): 10 (HNC

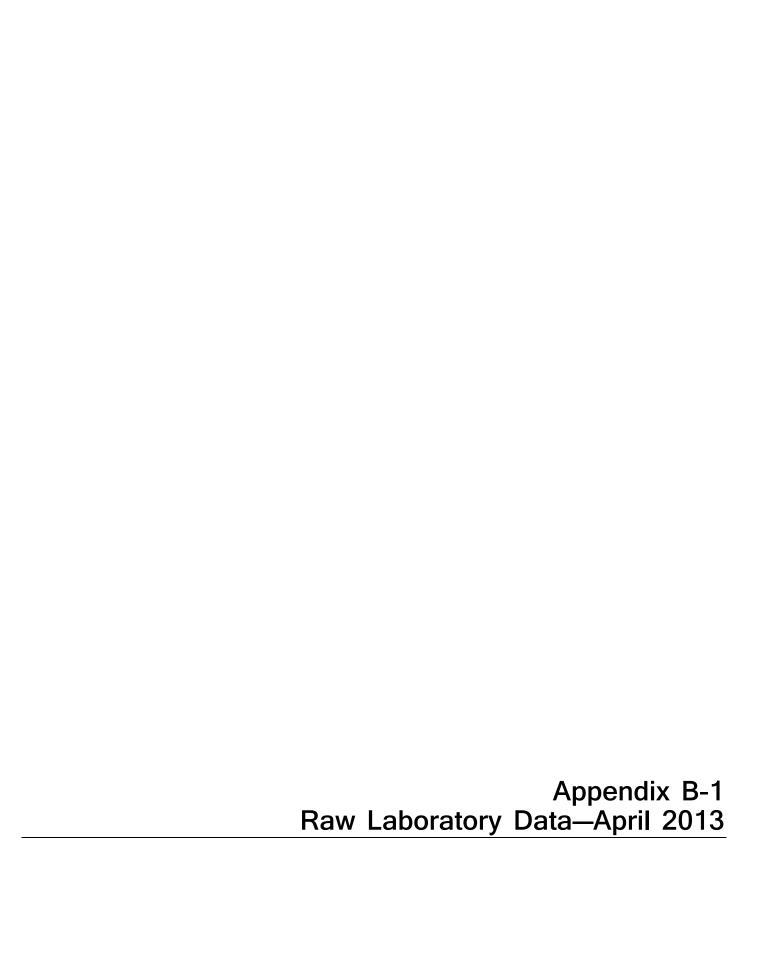
	ncaster Lab		s						Chain	Of C	4	J / A	\I	!- I		-4							AESI Ref:	41339.33506
· · · · · · · · ·	New Holland Pitcaster, PA 17605				"	one	ywel		Chain	Of C	usto	19 / F	anai	ysis k	eque	est							COC#	30905-030813-3
) 656-2300	-2425			Privileged &	Confident	ial	N			Site N	ame:		Baltimo	re			Phase	a:				Lab Proj # (SDG):	
San	npling Co.:	Maryland	l Environr	nental Service	EDD To:		kbiles@omiind	c.com				ion of	Site:	BALTIM	ORE, I	/ID			ling	Surfac Sampl	e Wate	er	Lab ID	LU
Clie	ent Contact: (n	ame, co.	, addres	s)	Sampler:	Amanda F	enafiel; Rache	el Griner, M	laura Morris										\neg				Site ID	BALTIMORE
Chri	stopher French				PO#	45000138					Presen	ative	3										Lab Job #	
	Columbia Road; M						Time (TAT):		14														Authorized User:	Honeywell
	istown, NJ 07962 iminary Data To	kenneth.	biles@ch2			Consultan	it		CH2M			٠											Text & Excel File Drive	Excel & Text File
	ple Receipt nowledgement To	kenneth.	biles@ch2	en com, bernice kidd@ch2m.com m.com, en com, bernice kidd@ch2m.com,							q	Sample	E											Order
Hard	d Сору То	Amy Klop	pper	2 4	Fu	II Report T	AT:		28		/Gra	Sp	ie					1 1		- 1				
Invo	ice To:	Christop	ner French	- Manual							site	Itere	S.											
		Samı	ole Identif	ication	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered	SW6010 Chromium										Copyright AESI: Version 8.0 Unsulhorized use strictly probblind.	
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units												Sampling Method (code)	Lab Sample Numbers
1	11T	5 58	0.0	30905-SW11T-030813	3/8/2013	6930	W-SW	WATER	REG	1	grab	Υ	х											
2	11M	-	-	30905-SW11M-030813	3/8/2013		w-sw	WATER	REG		grab													
3	11B	5.58	4.58	30905-SW11B-030813	3/8/2013	0932	w-sw	WATER	REG	1	grab	Υ	х											
4	12T	6.08	0.0	30905-SW12T-030813	3/8/2013	0934	W-SW	WATER	REG	1	grab	Υ	х											
5	12M		_	30905-SW12M-030813	3/8/2013	-	w-sw	WATER	REG		grab													
6	12B	6.08	508	30905-SW12B-030813	3/8/2013	0936	w-sw	WATER	REG	-1	grab	Υ	х											
7	13T	6.25	0.0	30905-SW13T-030813	3/8/2013	0937	w-sw	WATER	REG	1	grab	Υ	х											
8	13M	-	-	30905-SW13M-030813	3/8/2013	-	w-sw	WATER	REG		grab													
9	13B	6.25	5.25	30905-SW13B-030813	3/8/2013	0938	W-SW	WATER	REG	1	grab	Υ	х											
10	14T	6.5	0.0	30905-SW14T-030813	3/8/2013	0940	W-SW	WATER	REG	1	grab	Υ	х								į			
11	14M	-	-	30905-SW14M-030813	3/8/2013		w-sw	WATER	REG		grab													
12	14B	6.5	5.5	30905-SW14B-030813	3/8/2013	0941	w-sw	WATER	REG	1	grab	Υ	х											
Relir	nquished by	,		MES Company			Received by	- A						Compa	ny 👍	101 HB	7/ 0	ondition			С	ustody	Seals Intact	
0		Pen	Luc	3/5/13 Date/Time(3:35	7		2015	A				Da	ate/Tin	ne		ouis	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ooler Tem	p.					
Relin	nquished by) '	Company	/		Received by	-						Compa		1		ondition			С	ustody	Seals Intact	
				Date/Time								Da	ate/Tin	ne			C	ooler Tem	p.					
Pres	ervatives: (Other	r; Specify)					0 (none); 1 (4 D (pH<2), 4Deg C	eg C); 2 (H	CI pH<2); 3 (aOH (pH>12	HNO3 p	H<2); 4	(H2SO	4 pH<2); 5 (NaC)H pH>1	2); 6 (Na	OH, Zn .	Acetate); 7	(H2SC	M (pH<	(2), 4 Do	eg C)); {	8 (HCl pH<2); 9 (HCl 4 De	∍g C); 10 (HNO3

	ratorie	S																				AESI Ref:	41339.33535
425 New Holland Pike ancaster, PA 17605-2				Н	one	ywe		Chain	Ot C	usto	ay / /	Anal	ysis	Requ	est							COC#	30905-03081
717) 656-2300				Privileged &	Confident	tial	N	Ι		Τ.			Baltir	nore	7				Т			Lab Proj # (SDG):	
				EDD To:	Communi	kenneth.biles				Site N			777	IMORE,	MD	-		ase: mpling	Surfa	ace Wa	ter	Lab ID	LLI
			ntal Service	EDD 10.		Kerii led i.biles	@GHZIII.CO			Locat	ion of	Site:	DALI	IMURE,	MD	_		gram		pling	2000		DAI THEOD
Client Contact: (na	me, co.,	, address	5)	Sampler:		Penafiel, Rach	ael Griner,	Maura Morr	is	_					_	\square	_	_	_	\square	_	Site ID	BALTIMOR
Christopher French 01 Columbia Road; Me	ever 3			PO#	45000138	Time (TAT):		14		Preser	/mtilve	3						+				Lab Job # Authorized User:	Honeywa
Morristown, NJ 07962	70.0				Consultar			CH2M		1			Ш				- 1			1 1		Additionzed User:	noneywe
Preliminary Data To		oiles@ch2m	<u>1.com;</u> n.com, hernice kidd@ch2m.com								6		H							1 1		Text & Excel File Drive	Excel & Text I Order
Sample Receipt	kenneth.b	oiles@ch2m	n.com:							1	ag .						f	-					Order
	Amy Klop		n.com; bernice kidd@ch2m.com	4						-ap	Sar	ë								1 1	1	1	
	2011 011	er French	Dead	Fu	III Report 1	TAT:	-	28		te/G	ered	hron	Ш							1 1			
10000 10.	or motopri	- TOHON					-			bos	Ē	710 C											
	Samo	le Identific	ation	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample	SW6010 Chromium										Copyright AESI: Version 8.0 Unauthorized use	
	Start	End		Rod Title	15.14.00	and all	F (33)	ea land		T		0)										strictly prohibited.	
Location ID	Depth (ft)	Depth (ft)	Field Sample ID				1331		-33	Units												Sampling Method (code)	Lab Samp
	6.58	0.0			0942																-	(code)	Numbers
1 15T	6.00		30905-SW15T-030813	3/8/2013		W-SW	WATER	REG	1	grab	Y	X		-	_	-		+-	-	\vdash	_	1	
2 15M		-	30905-SW15M-030813	3/8/2013	-	W-SW	WATER	REG		grab													
3 15B	6.58	5.58	30905-SW15B-030813	3/8/2013	0944	w-sw	WATER	REG	1	grab	Υ	x											
4 16T	8.75	0.0	30905-SW16T-030813	3/8/2013	0948	w-sw	WATER	REG	1	grab	Υ	х							T	\Box			
5 16M	-	_	30905-SW16M-030813	3/8/2013	-							-						1	\vdash	\vdash			
	8.75	7.75			0950	W-SW	WATER	REG		grab	_		H	-	+			+-	+	\vdash	+	-	
6 16B			30905-SW16B-030813	3/8/2013		W-SW	WATER	REG	1	grab	Υ	Х	-		-	\vdash	_	+	-	\vdash	_		
7 17T	6.0	0.0	30905-SW17T-030813	3/8/2013	0951	w-sw	WATER	REG	1	grab	Y	Х											
8 17M	-		30905-SW17M-030813	3/8/2013	_	w-sw	WATER	REG		grab													
9 17B	60	50	30905-SW17B-030813	3/8/2013	0953	w-sw	WATER	REG	1	grab	Υ	x							T	\Box			
10 18T		0.0			0956										+-	\vdash		+-	1		_		
	11.58	-	30905-SW18T-030813	3/8/2013	-	W-SW	WATER	REG	1	grab	Y	Х	\vdash		-			+-	\vdash	\vdash	-		
11 18M	1.00	-	30905-SW18M-030813	3/8/2013	0958	W-STW	WATER	REG	1	grab	Y	Х	\vdash		-		_	4-	<u> </u>				
12 18B	11.58	10.58	30905-SW18B-030813	3/8/2013	1000	w-sw	WATER	REG	1	grab	Υ	х											
Relinquished by		T	MES Company	vI .		Received by				1			Com	pany	C 60 + 0	1000	Condition		1	L	Countrality	Carla late at	
A /1) -#		2 /- / Date/Time - 2			2/0	11	1		-	D	ate/Tii		party Z	the A	and a			_		Custody	Seals Intact	
	enc	ent	3/8/13 Date/Time 13:31	7		111	Sal					ale/ III		3	100/13	Bo	Cooler T	emp.					
telinquished by	-0		Company Date/Time	/	_	Received by								pany		_	Condition			(Custody	Seals Intact	
			Date/Time								ט	ate/Tii	iiie				Cooler T	emp.					
reservatives: (Other;	Specify):					0 (none); 1 (4 l (pH<2), 4Deg	Deg C); 2 (H C); 11 (4C N	Cl pH<2); 3 (aOH (pH>12	(HNO3 p	pH<2); 4 orbic Ac	(H2SC id); 12 (24 pH<	2); 5 (N	laOH pH>	12); 6 (N a2S2O3)	aOH, Zi	n Acetate Acetate)	7 (H25	SO4 (pl	H<2), 4 [Deg C)); 8	3 (HCl pH<2); 9 (HCl 4 De(g C); 10 (HNO

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425					Honeywell Chain Of Custody / Analysis Request												AESI Ref: COC#	41339.33553 30905-03081						
(717	656-2300				Privileged &	N			Site Name:			Baltimore				Ph	neo:				Lab Proj # (SDG):			
Sar	npling Co.:	Maryland	Environm	ental Service	EDD To: kenneth.biles			@ch2m.com			Location of Site:		Site:	BALTIMORE, MD		-	Phase: Sampling Program		Surface Water Sampling			Lab ID	LLI	
lie	nt Contact: (n	ame, co.	, addres	s)	Sampler: Amanda Penafiel; Racha										Г	П		-	1	Samplin	ig _	T	Site ID	BALTIMO
_	stopher French				PO #	45000138					Preserv	rativa	3										Lab Job#	
	Columbia Road; Nistown, NJ 07962	leyer 3				urnaround Consultar	Time (TAT):	14 CH2M								П							Authorized User:	Honeywe
rei	minary Data To		oiles@ch2	m.com. en com, heroice kidd⊘ch2m.com.		- Oniountain			OTIZIN		1	~				ш							Text & Excel File Drive	Excel & Text
	ple Receipt	kenneth.	oiles@ch2	m.com_							1	прве				1-1							N. C. C. C. C. C. C. C. C. C. C. C. C. C.	Order
	Copy To			en.com, bernice kidd@ch2m.com; ills Street; Baltimore, MD 21231	F.,	II Report T					3rab	d Sa	il il								1		1	
VC	ice To:		er French	CONTRACTOR CHARLES BY ST. SCHOOLS ST. CO. CO. CO. CO. CO. CO. CO. CO. CO. CO		28			site/(tere	Chro			1 1						İ				
		Samp	le Identifi	cation	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample	SW6010 Chromium										Copyright AESI: Version II.0 Unauthorized use intricity prohibited.	
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units												Sampling Method (code)	Lab Samp
	19T	608	0	30905-SW19T-030813	3/8/2013	1001	W-SW	WATER	REG	1	grab	Υ	х											
	19M			30905-SW19M-030813	3/8/2013		w-sw	WATER	REG		grab							7			1			
	19B	6.08	5.08	30905-SW19B-030813	3/8/2013	1002	W-SW	WATER	REG			Υ	x		1-	\Box	_	#	1	\dashv	+	+		
	20T	2.33	Ö	30905-SW20T-030813	3/8/2013	1004	W-SW	WATER	REG	1	grab	Y	x				+	1	+-	+	╫	+		
	20M			30905-SW20M-030813	3/8/2013	·	W-SW	WATER	REG		grab				1			-			+	+		
	20B	2.33	1.33	30905-SW20B-030813	3/8/2013	1006	W-SW	WATER	REG	1		γ	x				+	+		\vdash	+	+		
1	Cent T	5.5	0	30905-SWCentT-030813	3/8/2013	0847	W-SW	WATER	REG	1	grab	Y	x			H	+	+				-		
	Cent M			30905-SWCentM-030813	3/8/2013	-				· ·					1	\vdash	-	+		-	+	+	 	
	Cent B	5.5	4.5			0849	W-SW	WATER	REG		grab	\dashv	+				+	-	-	-	-	+		
0	LADY T	4.83	٥	30905-SWCentB-030813	3/8/2013	0842	W-SW	WATER	REG	1	grab	Y	X				+	+	+	+	+	-		
1	Lady M	1.07		30905-SWLadyT-030813	3/8/2013	U 07 0	W-SW	WATER	REG	1	grab	Y	×	-			+	+						
2	LADY B	4-83	3 83	30905-SWLadyM-030813 30905-SWLadyB-030813	3/8/2013	0844	W-SW	WATER	REG		grab .			-			-	+	-	-	+	1		
		11.24	201	00000-044Lauyn-000613	3/8/2013	0017	W-SW	WATER	REG	1	grab	Υ	Х						1		L_	1		
dir	quished by		0	MES Company			Received by							Company	ava	a HA	4C C0	ondition			Cus	tody S	eals Intact	
amendi Pent 3/8/13 Date/Time							7/1/	11				Da	ite/Tim					ooler Temp.						
Relinquished by Company Date/Time							Réceived by							Company						Cus	tody S	eals Intact		
_				Date/Time								Da	te/Tim	ne			Co	ooler Te	mp.					

Lancaster Lab 2425 New Holland Pi	Honeywell Chain Of Custody / Analysis Request													1465454	41339.33576 30905-030813-6								
Lancaster, PA 17605 (717) 656-2300						_					T	_											
(1117030-2300				Privileged &	Confiden	tla l	N			Site N	ame:		Baltimore				Phase:					Lab Proj # (SDG):	
Sampling Co.:	Sampling Co.: Maryland Environmental Service				EDD To: kenneth.b			iles@ch2m,com			Location of Site:			RE, MD	i, MD		Prograr		Surface Water Sampling			Lab ID	LLI
Client Contact: (r	ame, co.	addres	ss)	Sampler:	ael Griner, Maura Morris															Site ID	BALTIMORE		
Christopher French 101 Columbia Road M	ever 3			PO # 4500013806 Analysis Turnaround Time (TAT):			14			Preserv	etive	3			_			1				Lab Job #	
Morristown, NJ 07962					Consultant			14 CH2M														Authorized User:	Honeywell
Preliminary Data To	kenneth.b		<u>m.com;</u> ten.com hernice kidd@ch2m.com								6 2				-							Text & Excel File Drive	Excel & Text File
Sample Receipt <u>kenneth.biles@ch2m.com;</u>			?m.com;								du	_											Older
Hard Copy To	Acknowledgement To amy.klopper@critigen.com ; bernice.kidd@ch2m.com ; dech2m.com ; bernice.kidd@ch2m.com ; dech2m.com ; bernice.kidd@ch2m.com ; dech2m.com ; <a href="</td"><td colspan="3">Full Report TAT:</td><td colspan="3">28</td><td>Grab</td><td>d Sa</td><td>mium</td><td></td><td></td><td></td><td></td><td colspan="2"></td><td>1 1</td><td></td><td></td><td></td><td></td>			Full Report TAT:			28			Grab	d Sa	mium							1 1				
Invoice To:	Christoph	er French	1	Full Report TAT.			20			site/	Filtered Sample	Chro								1			A
	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Fi	SW6010 Chromium								Copyright AESI: Version II.0 Unauthorized use strictly prohibited.						
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units		ug/L										Sampling Method (code)	Lab Sample Numbers
1 51	592	Ö	30905-SWD1-030813	3/8/2013	0906	w-sw	WATER	FD	1	grab	Υ	х							1			(1110)	Trainiboto .
2 10B	4.92	3.42	30905-SWD2-030813	3/8/2013	0926	w-sw	WATER	FD	1	grab	Υ	х											
3 15T	6.58	O	30905-SWD3-030813	3/8/2013	0944	W-SW	WATER	FD	.1	grab	Υ	х						Ť	7				
4 208	2.33	1.33	30905-SWD4-030813	3/8/2013	1008	W-SW	WATER	FD	1	grab	Υ	х											
5 FIELDQC			30905-SW-FB1-030813	3/8/2013	0855	BLKWATER	WATER	FB	1	grab	N	х											
6 FIELDQC			30905-SW-RB1-030813	3/8/2013	0928	BLKWATER	WATER	EB	11	grab	N	х											
7 FIELDQC			30905-SW-RB2-030813	3/8/2013	1008	BLKWATER	WATER	EB	1	grab	N	х											
8 FIELDQC			30905-SW-RB3-030813	3/8/2013		BLKWATER	WATER	EB	_1	grab	N	х						1					
9																							9
10																							
11																							
12																		1	7				
Relinquished by		Received by					Company			CALM YOU Condition			_										
Relinquished by MES Con Amount Seule 3/8/13 Date/Time 3						211	(11	1			Da	ate/Tir		3/8/10	121	-	er Temp.	+		Cusi	ouy St	eals Intact	
Relinquished by			Company			Received by	2111						Company	10/13	1 Out	Cond	dition	+		Cuel	ody Se	eals Intact	
			Date/Time							Date/Time							er Temp.	\dagger		Just	July Ot	Jan Haot	
Preservatives: (Other	; Specify);					0 (none); 1 (4 D (pH<2), 4Deg C	eg C); 2 (H0); 11 (4C Na	Cl pH<2); 3 (I	HNO3 p	H<2); 4	(H2SO4	4 pH<2	2); 5 (NaOH SO4 (pH<2)	pH>12); 6	(NaOH	, Zn Ace	etate); 7 (H	2SO4	(pH<2)	4 Deg	C)); 8 (I	+Cl pH<2); 9 (HCl 4 Dec	C); 10 (HNO3







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REVISED

ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17601 Honeywell International, Inc. 101 Columbia Road MEY-3 Morristown NJ 07962

May 08, 2013

Project: Baltimore Inner Harbor, MD

Submittal Date: 04/18/2013 Group Number: 1384038 SDG: BHB04 PO Number: 4500013806 State of Sample Origin: MD

Client Sample Description	<u>Lancaster Labs (LLI) #</u>
30905-GW-OP7-041713 Grab Groundwater	7027668
30905-GW-OP11-041713 Grab Groundwater	7027669
30905-GW-OP5-041713 Grab Groundwater	7027670
30905-GW-OP2-041713 Grab Groundwater	7027671
30905-GW-OP3-041713 Grab Groundwater	7027672
30905-GW-OP4-041713 Grab Groundwater	7027673
30905-GW-OP9-041713 Grab Groundwater	7027674
30905-GW-NMW27-041713 Grab Groundwater	7027675
30905-GWD1-041713 Grab Groundwater	7027676
30905-GWD2-041713 Grab Groundwater	7027677
30905-GW-FB1-041713 Grab Water	7027678
30905-GW-RB1-041713 Grab Water	7027679

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Honeywell International	Attn: Ken Biles
ELECTRONIC COPY TO	Critigen	Attn: Amy Klopper
ELECTRONIC COPY TO	CH2M Hill, Inc.	Attn: Robert Steele
ELECTRONIC COPY TO	Honeywell	Attn: Katherine Beach
ELECTRONIC COPY TO	Honeywell International, Inc.	Attn: Rakesh Singh
ELECTRONIC COPY TO	Honeywell International, Inc.	Attn: Peeyush Gupta



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ELECTRONIC CH2M Hill, Inc. Attn: Bernice Kidd COPY TO

ELECTRONIC

Honeywell International, Inc. Attn: Bindu Lingaiah

COPY TO

Attn: Lakshmi Devi ELECTRONIC Honeywell International, Inc.

COPY TO

ELECTRONIC Honeywell International, Inc. Attn: Parthiban P

COPY TO

COPY TO

ELECTRONIC Honeywell International, Inc. Attn: Aruna Chandraskekar

COPY TO ELECTRONIC

Honeywell International, Inc. Attn: Suraj Nayak

Respectfully Submitted,

Wendy A. Kozma

Principal Specialist Group Leader

Wendy a. Kenn

(717) 556-7257



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REVISED

Sample Description: 30905-GW-OP7-041713 Grab Groundwater

Baltimore Inner Harbor

LLI Sample # WW 7027668 LLI Group # 1384038 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/17/2013 09:30 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/08/2013 11:49 Morristown NJ 07962

BIH07 SDG#: BHB04-01

Submitted: 04/18/2013 19:52

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

Metals SW-846 6010B mg/l mg/l mg/l

07051 Chromium 7440-47-3 0.0018 J 0.0011 0.0100 1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131141848005	04/29/2013	08:48	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131141848005	04/24/2013	23:30	Annamaria Stipkovits	1



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REVISED

Sample Description: 30905-GW-OP11-041713 Grab Groundwater

Baltimore Inner Harbor

LLI Sample # WW 7027669 LLI Group # 1384038 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/17/2013 10:41

by AP

Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962

Submitted: 04/18/2013 19:52 Reported: 05/08/2013 11:49

BIH11 SDG#: BHB04-02

Analysis Name

CAS Number

As Received Result As Received Method Detection Limit* As Received

Limit of Dilution Quantitation Factor

Metals SW-846 6010B mg/l mg/l mg/l

07051 Chromium

CAT

No.

7440-47-3

0.869

0.0011

0.0100

1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
07051	Chromium	SW-846 6010B	1	131141848005	04/29/2013	08:52	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131141848005	04/24/2013	23:30	Annamaria Stipkovits	1



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REVISED

Sample Description: 30905-GW-OP5-041713 Grab Groundwater

Baltimore Inner Harbor

LLI Sample # WW 7027670 LLI Group # 1384038 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/17/2013 11:42 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/08/2013 11:49 Morristown NJ 07962

BIH05 SDG#: BHB04-03

Submitted: 04/18/2013 19:52

CAT
No. Analysis Name

CAS Number

CAS Number

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CAS Number

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CAS Num

 Metals
 SW-846
 6010B
 mg/l
 mg/l
 mg/l

 07051
 Chromium
 7440-47-3
 3.95
 0.0011
 0.0100

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131141848005	04/29/2013	08:08	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131141848005	04/24/2013	23:30	Annamaria Stipkovits	1



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REVISED

Sample Description: 30905-GW-OP2-041713 Grab Groundwater

Baltimore Inner Harbor

LLI Sample # WW 7027671 LLI Group # 1384038 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/17/2013 12:45 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/08/2013 11:49 Morristown NJ 07962

BIH02 SDG#: BHB04-04

Submitted: 04/18/2013 19:52

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	3	SW-846	6010B	mg/l	mg/l	mg/l	
07051	Chromium		7440-47-3	5.77	0.0011	0.0100	1
Wet Cl	nemistry	SW-846	9012A	mg/l	mg/l	mg/l	
08255	Total Cyanide (water	r)	57-12-5	N.D.	0.0050	0.010	1
	The holding time wa data reported.	s not met	. The client was	notified and the	2		

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131141848005	04/29/2013	08:56	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131141848005	04/24/2013	23:30	Annamaria Stipkovits	1
08255	Total Cyanide (water)	SW-846 9012A	2	13112117101B	05/03/2013	16:15	Venia B McFadden	1
08256	Cyanide Water Distillation	SW-846 9012A	2	13112117101B	05/03/2013	10:05	Nancy J Shoop	1



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REVISED

Sample Description: 30905-GW-OP3-041713 Grab Groundwater

Baltimore Inner Harbor

LLI Sample # WW 7027672 LLI Group # 1384038 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/17/2013 13:49 by AP

Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962

BIH03 SDG#: BHB04-05

Submitted: 04/18/2013 19:52

Reported: 05/08/2013 11:49

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals 07051	SW Chromium	-846 6	5010B 7440-47-3	mg/l 137	mg/1 0.0110	mg/l 0.100	10
Wet Ch	nemistry SW Total Cyanide (water)	-846 9	9 012A 57-12-5	mg/l N.D.	mg/l 0.0050	mg/l 0.010	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory	Sample	Analysis	Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131141848005	04/29/2013	09:00	Joanne M Gates	10
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131141848005	04/24/2013	23:30	Annamaria Stipkovits	1
08255	Total Cyanide (water)	SW-846 9012A	1	13112117101B	04/23/2013	09:03	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	1	13122117101B	04/22/2013	09:55	Nancy J Shoop	1



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REVISED

Sample Description: 30905-GW-OP4-041713 Grab Groundwater

Baltimore Inner Harbor

LLI Sample # WW 7027673 LLI Group # 1384038

Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/17/2013 14:40 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962

BIH04 SDG#: BHB04-06

Submitted: 04/18/2013 19:52

Reported: 05/08/2013 11:49

CAT Analysis Name CAS Number Result As Received As Received Dilution Factor

Metals SW-846 6010B mg/l mg/l mg/l

07051 Chromium 7440-47-3 2.69 0.0011 0.0100 1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131141848005	04/29/2013	09:04	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131141848005	04/24/2013	23:30	Annamaria Stipkovits	1



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REVISED

Sample Description: 30905-GW-OP9-041713 Grab Groundwater

Baltimore Inner Harbor

LLI Sample # WW 7027674 LLI Group # 1384038 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/17/2013 15:37 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/08/2013 11:49 Morristown NJ 07962

BIH09 SDG#: BHB04-07

Submitted: 04/18/2013 19:52

As Received As Received Method Limit of CAT As Received Dilution Analysis Name CAS Number Detection Limit* Quantitation No. Result Factor SW-846 6010B mg/l mg/l Metals 07051 Chromium 7440-47-3 0.220 2.00 200 1,900

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131141848005	04/30/2013	07:02	Tara L Snyder	200
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131141848005	04/24/2013	23:30	Annamaria Stipkovits	1



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REVISED

Sample Description: 30905-GW-NMW27-041713 Grab Groundwater

Baltimore Inner Harbor

LLI Sample # WW 7027675 LLI Group # 1384038 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/17/2013 16:37 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/08/2013 11:49 Morristown NJ 07962

BIH27 SDG#: BHB04-08

Submitted: 04/18/2013 19:52

As Received As Received Method Limit of CAT As Received Dilution Analysis Name CAS Number Detection Limit* Quantitation No. Result Factor SW-846 6010B mg/l mg/l Metals 07051 Chromium 7440-47-3 0.220 2.00 200 2,450

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131141848005	04/30/2013	07:07	Tara L Snyder	200
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131141848005	04/24/2013	23:30	Annamaria Stipkovits	1



As Received

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REVISED

Sample Description: 30905-GWD1-041713 Grab Groundwater

Baltimore Inner Harbor

LLI Sample # WW 7027676 LLI Group # 1384038 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/17/2013 11:45 by AP Honeywell International, Inc.

101 Columbia Road

As Received

MEY-3

Reported: 05/08/2013 11:49 Morristown NJ 07962

BIHD1 SDG#: BHB04-09FD

Submitted: 04/18/2013 19:52

Method Limit of CAT As Received Dilution Analysis Name CAS Number Detection Limit* Quantitation No. Result Factor SW-846 6010B mg/l Metals 07051 Chromium 7440-47-3 0.0011 0.0100 3.96

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131141848005	04/29/2013	09:15	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131141848005	04/24/2013	23:30	Annamaria Stipkovits	1



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REVISED

Sample Description: 30905-GWD2-041713 Grab Groundwater

Baltimore Inner Harbor

LLI Sample # WW 7027677 LLI Group # 1384038 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/17/2013 12:50 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/08/2013 11:49 Morristown NJ 07962

BIHD2 SDG#: BHB04-10FD

Submitted: 04/18/2013 19:52

As Received As Received Method Limit of CAT As Received Dilution Analysis Name CAS Number Detection Limit* Quantitation No. Result Factor SW-846 9012A mg/l mg/l Wet Chemistry 08255 Total Cyanide (water) 57-12-5 0.0050 0.010

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08255	Total Cyanide (water)	SW-846 9012A	1	13112117101B	04/23/2013	09:04	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	1	13122117101B	04/22/2013	09:55	Nancy J Shoop	1



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REVISED

Sample Description: 30905-GW-FB1-041713 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7027678 LLI Group # 1384038 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/17/2013 09:20 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962

BIHF1 SDG#: BHB04-11FB

Submitted: 04/18/2013 19:52

Reported: 05/08/2013 11:49

CAT No. Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals 07051 Chromium	SW-846	6010B 7440-47-3	mg/l N.D.	mg/l 0.0011	mg/l 0.0100	1
Wet Chemistry 08255 Total Cyanide (w	SW-846 water)	9012A 57-12-5	mg/l N.D.	mg/1 0.0050	mg/l 0.010	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory	Sample	Analysis	Record
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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131141848005	04/29/2013	09:20	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131141848005	04/24/2013	23:30	Annamaria Stipkovits	1
08255	Total Cyanide (water)	SW-846 9012A	2	13115117101A	04/26/2013	10:21	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	2	13115117101A	04/25/2013	14:50	Carolyn M Mastropietro	1



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REVISED

Sample Description: 30905-GW-RB1-041713 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7027679 LLI Group # 1384038 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/17/2013 09:45 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/08/2013 11:49 Morristown NJ 07962

BIHR1 SDG#: BHB04-12RB*

Submitted: 04/18/2013 19:52

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals 07051	SW-Chromium	-846 (6010B 7440-47-3	mg/1 N.D.	mg/l 0.0011	mg/1 0.0100	1
Wet Ch	nemistry SW- Total Cyanide (water)	-846 9	9012A 57-12-5	mg/l N.D.	mg/1 0.0050	mg/1 0.010	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131141848005	04/29/2013	09:23	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131141848005	04/24/2013	23:30	Annamaria Stipkovits	1
08255	Total Cyanide (water)	SW-846 9012A	1	13112117101B	04/23/2013	09:06	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	1	13122117101B	04/22/2013	09:55	Nancy J Shoop	1



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Page 1 of 1 REVISED

Quality Control Summary

Client Name: Honeywell International, Inc. Group Number: 1384038

Reported: 05/08/13 at 11:49 AM

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank MDL**	Blank <u>LOO</u>	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 131141848005 Chromium	Sample numi		27668-7027 0.0100	7676,7027678 mg/l	-70276 104	79	90-110		
Batch number: 13112117101B Total Cyanide (water)	Sample numl	ber(s): 70 0.0050		7672,7027677 mg/l	,70276 95	79	90-110		
Batch number: 13115117101A Total Cyanide (water)	Sample numl	ber(s): 70 0.0050	27678 0.010	mg/l	101	91	90-110	10	20

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD <u>%REC</u>	MS/MSD <u>Limits</u>	RPD	RPD <u>MAX</u>	BKG <u>Conc</u>	DUP <u>Conc</u>	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: 131141848005 Chromium	Sample 99 (2)		: 7027668- 81-120				UNSPK: 4.00	7027670 BKG: 1	7027670 20
Batch number: 13112117101B Total Cyanide (water)	Sample 0*	number(s)	: 7027671 43-137	-702767		677,7027679 N.D.	UNSPK:	7027671 BKG: 0 (1)	7027671 20

^{*-} Outside of specification

^{**-}This limit was used in the evaluation of the final result for the blank

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

- < less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than
- J estimated value The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis

Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Inorganic Qualifiers

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A B C D	TIC is a possible aldol-condensation product Analyte was also detected in the blank Pesticide result confirmed by GC/MS Compound quantitated on a diluted sample Concentration exceeds the calibration range of	B E M N S	Value is <crdl, (msa)="" additions="" but="" control="" due="" duplicate="" estimated="" injection="" interference="" limits="" met="" method="" not="" of="" precision="" sample="" spike="" standard="" th="" to="" used<="" within="" ≥idl=""></crdl,>
_	the instrument		for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
Р	Concentration difference between primary and	W	Post digestion spike out of control limits
	confirmation columns >25%	*	Duplicate analysis not within control limits
U	Compound was not detected	+	Correlation coefficient for MSA < 0.995
X,Y,Z	Defined in case narrative		

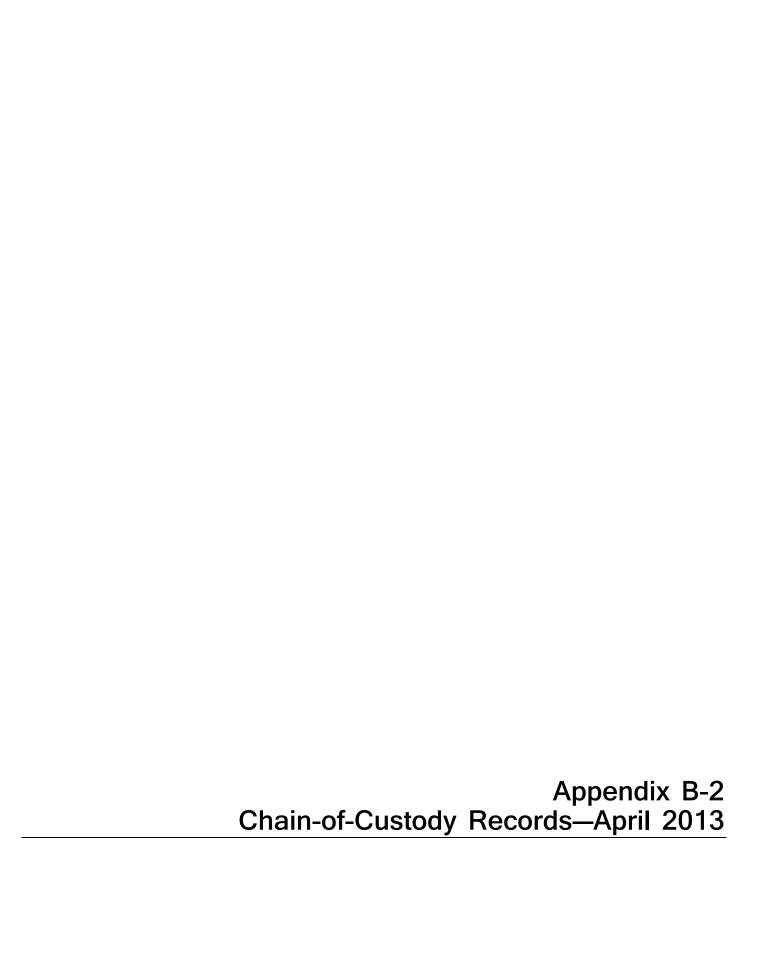
Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

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

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

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

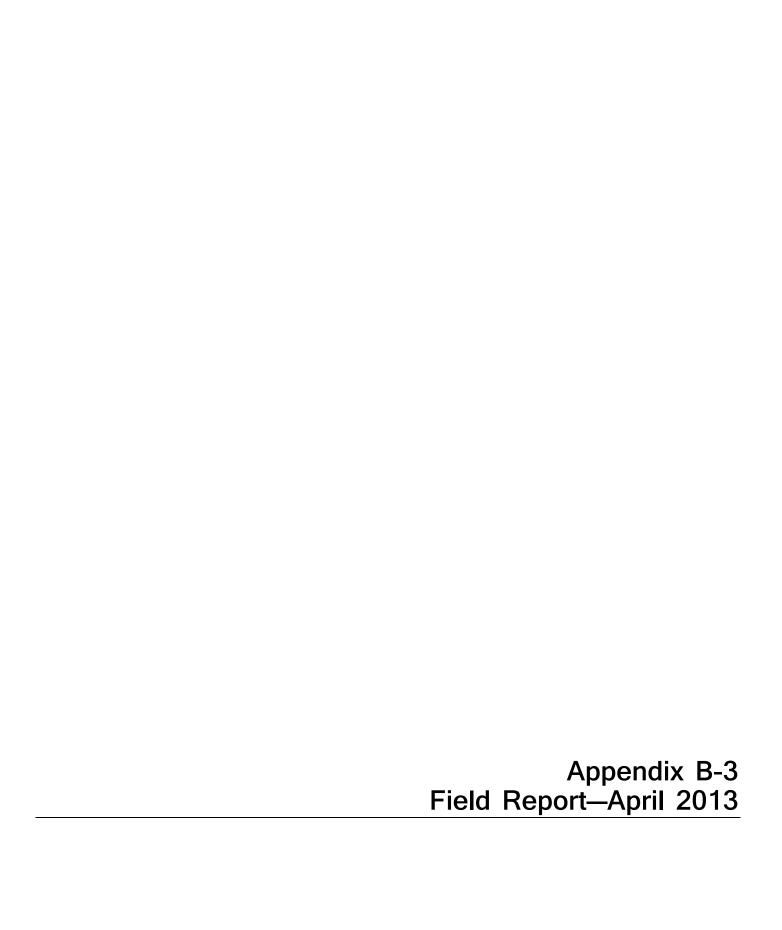
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acct = 10651 ap = 1384038 Sample = 7027668-79

425	caster Labo New Holland Pik	ce	5		Н	one	ywel		Chain	Of C	usto	dy / Æ	Anal	ysis F	Reque	est							AESI Ref: COC#	41376.3802 30905-0417 01
	aster, PA 17605- 656-2300	2425			Privileged &	Confident	ial	N			Site N	ama:		Baltimo	ore			I.	hase:	Т			Lab Proj # (SDG):	
am	pling Co.:	Maryland	Environme	ental Service	EDD To:		Locus Focus(I	kennethbile	es@ch2m.c	om)		ion of	Site:	BALTIN	MORE,	MD		S	ampling rogram	+			Lab ID	LLI
	nt Contact: (n				Sampler:	Amanda F	Penafiel								Т	T	П		Ť	\top	П		Site ID	BALTIMO
- 22	topher French	uo, oo.,	,	-,	PO#	45000138					Preser	ative	3	5									Lab Job #	
	Columbia Road M	eyer 3					Time (TAT):		14					(auto)									Authorized User:	Honeyw
	stown, NJ 07962 minary Data To	kenneth.t	iles@ch2r	m.com	8	Consultan	nt		CH2M		1			e (an										Excel & Text
	ole Receipt	APPENDI	oiles@ch2	。								le ?		Cyanide									Text & Excel File Drive	Order
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voi	ce To:	Christoph	er French								site	ilter	Chr	0/901										^
			le Identifi	cation	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Сотр	Field Filtered Sample	SW6010 Chromium	SW9010/9012 Total									Copyright AESI: Version 8.0 Unauthorized use strictly prohibited.	
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units		ррт	qdd									Sampling Method (code)	Lab Sam Number
	OP7	6.90	6.39	30905-GW-OP7-041713	4/17/2013	0930	GW-GWS	WATER	REG	1	grab	Υ	х										BladPump	
T	OP11	4.15	4.10	30905-GW-OP11-041713	4/17/2013	10:41	GW-GWS	WATER	REG	1	grab	Y	х										BladPump	
T	OP5	-	5.20	30905-GW-OP5-041713	4/17/2013	11:42	GW-GWS	WATER	REG	1	grab	Υ	x										BladPump	
	OP2	13.00	13.03	30905-GW-OP2-041713	4/17/2013	12:45	GW-GWS	WATER	REG	2	grab	Υ	х	x									BladPump	
T	OP3	1245	12.60	30905-GW-OP3-041713	4/17/2013	1:49	GW-GWS	WATER	REG	2	grab	Υ	x	х									BladPump	
	OP4	8.67	€.921	30905-GW-OP4-041713	4/17/2013	2:40	GW-GWS	WATER	REG	1	grab	Υ	х										BladPump	
	OP9	6.33	6.30	30905-GW-OP9-041713	4/17/2013	3:37	GW-GWS	WATER	REG	1	grab	Υ	х										BladPump	
	NWM-27	7.30	20.10	30905-GW-NWM27-041713	4/17/2013	4:37	GW-GWS	WATER	REG	1	grab	Υ	x	-									BladPump	
	OP5	5.15	5.20	30905-GWD1-041713	4/17/2013	11:45	GW-GWS	WATER	FD	1	grab	Υ	х										BladPump	
	0P2	13.00	13.25'	30905-GWD2-041713	4/17/2013	12:50	GW-GWS	WATER	FD	1	grab	Υ		х										
	FIELDQC		_	30905-GW-FB1-041713	4/17/2013	0920	BLKWATER	WATER	FB	2	grab	Υ	х	x										
2	FIELDQC	-	-	30905-GW-RB1-041713	4/17/2013	0945	BLKWATER	WATER	EB	2	grab	Υ	Х	х										
elino	quished by			MES Compan	ny		Received by							Compa	any C	1201	/// C	onditio	in			Custody	Seals Intact	
2	mardi	Period	rel	4/17/12 Date/Time			Wel B	W	3			Da	ate/Tir	ne	4/	2/31).08 C	ooler T	Гетр.		1	_		
	guished by		,	Compan 4/18/13 Date/Time3	y CHANH	TIL	Received by	. /				Da	ate/Tir	Compa ne	any 4	luil.	C	onditio oole/J				Custody	Seals Intact	
1_	PRI			11/0/15 0543			CHAM I,		^-		\$40 82W =				7/	1/3	0745							
rese	ervatives: (Other						0 (none); 1 (4 E (pH<2), 4Deg (Deg C); 2 (H C); 11 (4C N	CI pH<2); 3 aOH (pH>12	(HNO3 2) & Asc	pH<2); 4 orbic Ac	(H2SC id); 12 (4 pH< 4C H2	2); 5 (Na SO4 (pH	OH pH> <2) & N	12); 6 (Na 2S2O3)	laOH, Zn ; 13 (Zn /	Acetate Acetate	e); 7 (H25); sp (spe	SO4 (plecial ins	H<2), 4 truction	Deg C)); is)	8 (HCl pH<2); 9 (HCl 4 De	eg C); 10 (HNC
		0.	0	1 Balleten	:05)										1			11			. 1	glis 195	2

Page 16 of 17



BALTIMORE INNER HARBOR GROUNDWATER WELL MONITORING

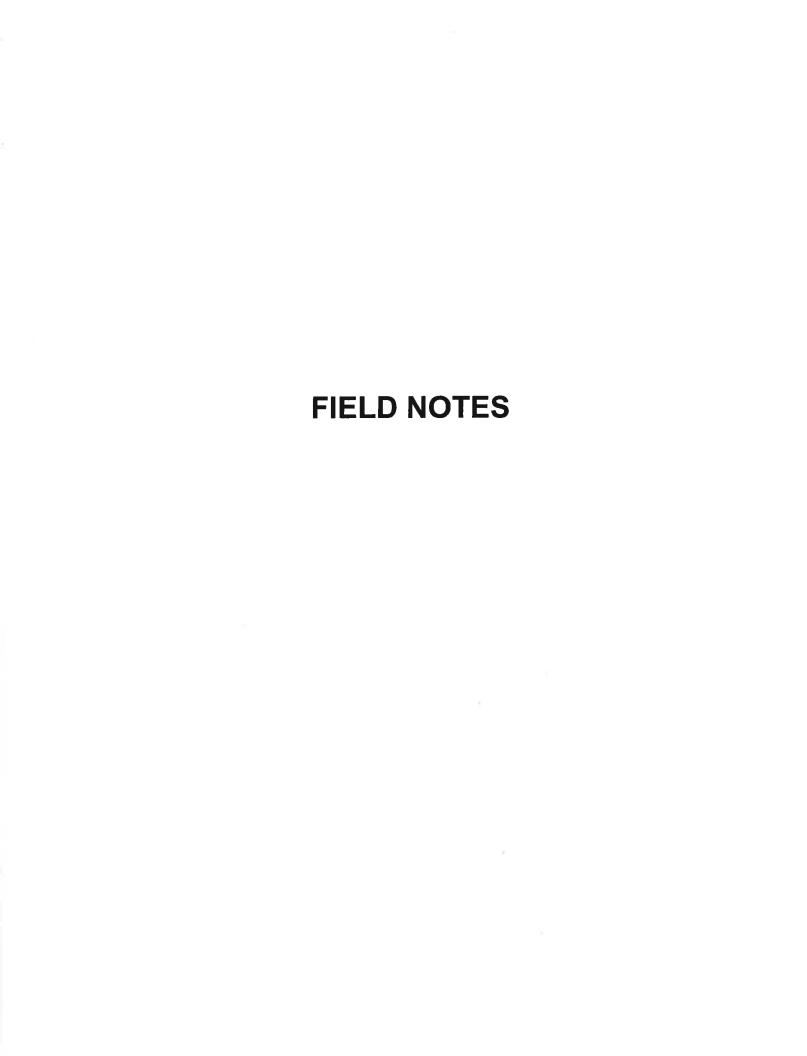
April 17, 2013





METER CALIBRATION LOG

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BIH Aman	GN W da Periorfi	Jell S ed, Tim	Jett, Ric	roll Ward Pou	ns	4/	17/13
	305K C	adbracer	1			F 1 1,	
Well	OPF	30	905-GV	1-0P7-	041713		
	al time:)	meterol	ogical (ondition	Q:
Finish	n time:	0950		partly	synny	60's	
Well	diamet	er: 4		0.1			0000
Begin	ning water	ter love	el: 6.9 : 6.39	0.		4 5 6 4	e: 0920 Me: 0945
Samp	le colle	ction t	ime: 9:	30			
	Temp (O)	PH (vnits)	Cond (mc/cm)	DO (mg/2)	turb (NtU)	ORP (mu)	Water Level (fr.)
909	14.78	6.44	10.4	5.06	0.2	133	6.03
912	13.93	8.65	121	5.13	6.2	-19	6.03
919	13.90	8.64	12-2	4.21	0.2	-51 -58 -65 -67	6.00
	13.92	8.89	12-1	3.95	0.3	-65	6.00
	13.92	45-90	12.1	7.75	0.2	-67	6.00
S.:							
	Tu Tu						
		/					Scale: 1 square =

BIH GW Well Sampling AP, JJ, RD, JC

Well OP 11 - 30905 - GW- OP11 - 041713

Arrival time: 1010 FIRISH time: 1055

Well Diameter: 4" Beginning water level 4.15. Ending water level: 4.10'

1.1041

Sample	collect	on tiv	ne: 1041	-			
Time (hrs)	Temp (°C)	·pH (units)	(us/cm)	DO (mg/L)	(NTU	ORP (MV)	water level(fr)
1024 1027 1030 1033 1036	17.98 17.36 17.15 17.02 16.89 17.0	636 636 6.36 6.37 6.27	5.29 5.34 5.35 5.37 5.37 5.37	4.20 3.67 3.41 3.39 3.29 3.26	5.57	224 214 208 204 201 200	4.20 4.22 4.25 4.26 4.26 4.27

BIH GW Well Sampling AP, JJ, RP, JC 4/17/13 Well OP5 - 309.05 - GW-0P5 - 041713 Arrival time: 11:07 Finish time: 11:55 Well diameter: 4" beginning water level: 4.15' AP 5.15' Ending water level: 5.20' Sample Collection time: 11:42 Dup Collection time: 11:45 Cond PH ORP Water HURD DO Temp Time level (fr.) (°C) (mg/L) (mV) (units) (WS/cm) (N+U) (ncs) 3.4 21.6 5.25 5.14 7.54 9:27 2.9 2.9 3.0 7.44 1134 5.00 5.11 22.2 1137 7.43 5.02 4.48 4.15 01

BITGW Well Sampling AP, JJ, RD, JC

Well OP3 - 30905 - GW - 0P3 - 041713

Arrival time: 1:20 Finish time: 2:10

Well Diameter: 6"

Boginning water level: 12.45'

ending water level: +:49 AP 12.60'

Sample collection time: 1:49

Time (hrs)	Temp (°C)	(Units)	cond	DO (mg/L)	turb (Nu)	ORP (mu)	water lovel(ft)
1:36	21.86	7.88	7.89	8-14	0.7	189	12.70
1:38	20.27	6.83	7.67	6.50	0.3	205	12.7(
1:40	19,69	6.76	7.65	6.26	0.3	210	12.71
1:42	19.24	6.72	7.69	6.05	0.3	213	12,71
1:44	18.88	0.67	7.73	5.95	0.4	218	12.71
1:46	18,70	6.64	7.77	5.75	0.7	222	12.73
	7 1 1						
-							

BIH GW Well Sampling

AP, JJ, RD, JC

Well OP4 - 30905-GW-0P4-041713

Arrival time: 2:15 Finish time: 2:55

Well Diameter: 6"

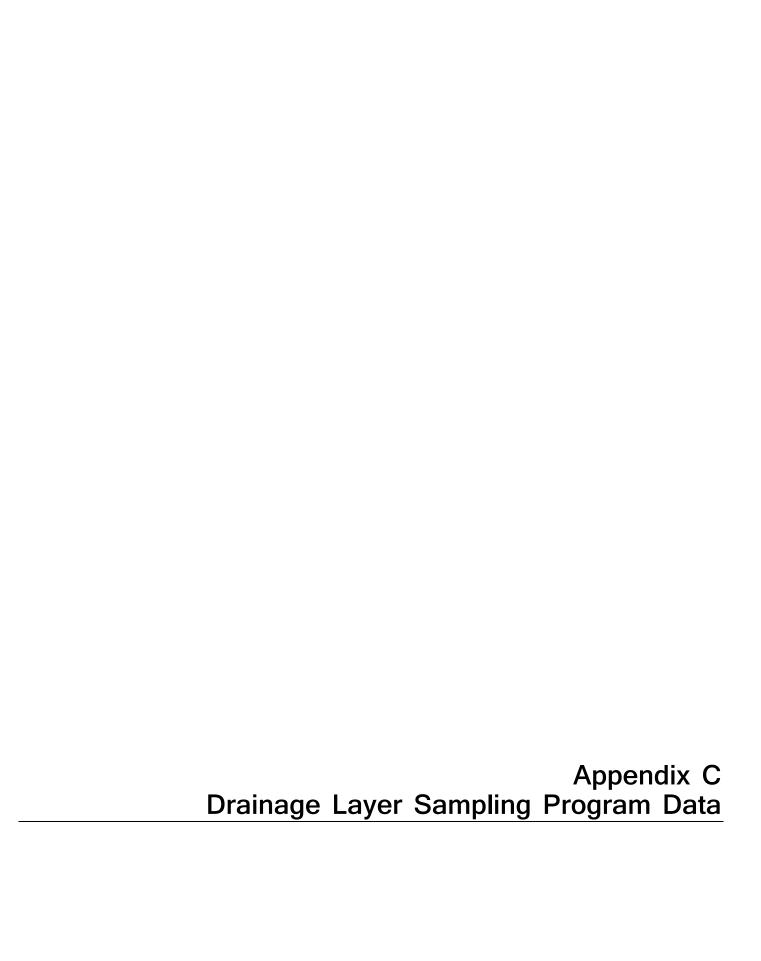
Beginning water level: 8.67' Ending water level: 8.92

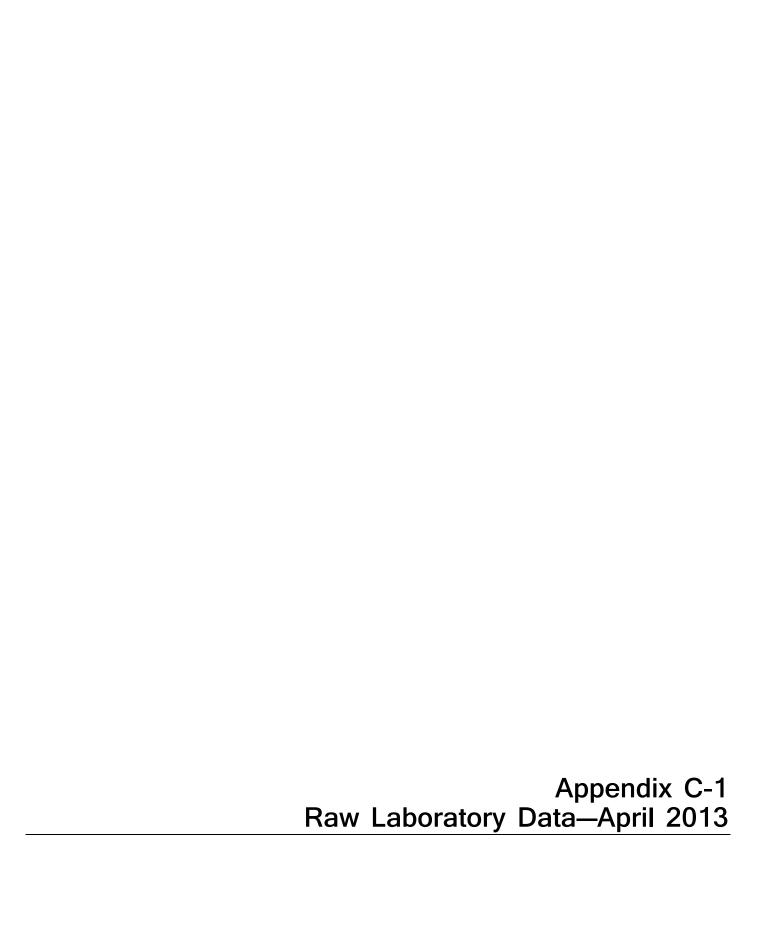
allesting line. 240

Time	Temp	p# 1	ime: 2H	DO	TURB	(mu)	Mater Nevel (A)
(hrs.)	(OC)	(Units)	(MS/CM)	(mg/L)	(NtV)	2110	882 AP
2:25	21.70	8.40	7.56	7.85	0.8	248	8.85
2:28	19.58	6.84	3.05	817	1,3	227	8.92
2:30	17.56	6.78	9.59	7.50	0.7	230	8.92
2:32	7:20	6.64	0.34	7,21	1.5	230	8.93
2:34	16.97	6.00	0.28	7.13	1.2		8.93
2:36	16.97	6.59	0.27	7,08	1.0	231	
2:38	16,96	6.58	0.27	7.05	1.0	230	8.90
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CHAIN of CUSTODY

Lancaster Laboratories																		AESI Ref:	41376.38020		
	New Holland Pil				H	Honeywell Chain Of Custody / Analysis Request										30905-041713- 01					
	656-2300	2423			Privileged & Confidential		N	N Site Name:		Baltimore		Pha	se:			Lab Proj # (SDG):					
Sam	pling Co.:	Maryland	Environm	ental Service	EDD To:	To: Locus Focus(kennethbile	s@ch2m.c	om)	Location of Site: BALTIMO		ORE, MD Samp		10000000000000000000000000000000000000			Lab ID	LLI		
Clie	nt Contact: (n	ame, co.,	, addres	s)	Sampler:	Amanda P	enafiel													Site ID	BALTIMORE
	opher French				PO #	450001380	06				Preserva	ative	3	5						Lab Job #	
	olumbia Road M	eyer 3					Time (TAT):		14					(otr						Authorized User:	Honeywell
	stown, NJ 07962 ninary Data To	kenneth b	niles (ii) ch2	m com		Consultan	ι	-	CH2M	_	1	- 1		e (aı		1 1		1 1			Excel & Text File
											1	6 -		Cyanide (auto)	111			1 1		Text & Excel File Drive	Order
	le Receipt owledgement To		oiles@ch2	<u>m.com</u>							۵	amp	E	tal C)	1 1 1						
Hard	Сору То	Arny Klop	per		Fu	II Report T	AT:		28		/Gra	S B	Сһгошіит	2 To		li	1 1	1 1			
Invoi	e To:	Christoph	ner French								site	ij	Chr	106/0	1 1 1			1.3			
		Samp	le Identifi	cation	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Composite/Grab	Field Filtered Sample	SW6010	SW9010/9012 Total						Copyright AESI: Version 8.0 Unauthorized use strictly prohibited.	
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID							Units		mdd	qdd						Sampling Method (code)	Lab Sample Numbers
1	OP7	6.90	6.39	30905-GW-OP7-041713	4/17/2013	0930	GW-GWS	WATER	REG	1	grab	Υ	Х							BladPump	
2	OP11	4.15	4.10	30905-GW-OP11-041713	4/17/2013	10:41	GW-GWS	WATER	REG	1	grab	Υ	х							BladPump	
3	OP5	6.15	5.201	30905-GW-OP5-041713	4/17/2013	11:42	GW-GWS	WATER	REG	1	grab	Υ	×							BladPump	
4	OP2	13.00	13.03	30905-GW-OP2-041713	4/17/2013	1245	GW-GWS	WATER	REG	2	grab	Υ	x	х						BladPump	
5	OP3	1245	12 -63	30905-GW-OP3-041713	4/17/2013	1:49	GW-GWS	WATER	REG	2	grab	Υ	Х	х						BladPump	
6	OP4	8.67	€.921	30905-GW-OP4-041713	4/17/2013	2:40	GW-GWS	WATER	REG	1	grab	Υ	Х							BladPump	
7	OP9	6.33'	6.301	= 30905-GW-OP9-041713	4/17/2013	3:37	GW-GWS	WATER	REG	1	grab	Υ	х							BladPump	
8	NWM-27			30905-GW-NWM27-041713	4/17/2013	4:37	GW-GWS	WATER	REG	1	grab	Υ	х							BladPump	411
9	6P5		5.20	30905-GWD1-041713	4/17/2013	11:45	GW-GWS	WATER	FD	1	grab	Υ	х							BladPump	
10	0P2	13.00	13.05'	30905-GWD2-041713	4/17/2013	12:50	GW-GWS	WATER	FD	1	grab	Υ		х							
11	FIELDQC		_	30905-GW-FB1-041713	4/17/2013	0920	BLKWATER	WATER	FB	2	grab	Y	Х	х							
12	FIELDQC	-	_	30905-GW-RB1-041713	4/17/2013	0945	BLKWATER	WATER	EB	2	grab	Υ	Х	х							
Relin	quished by			MES Company	1		Received by						_	Compa	CH2AUill	Condition		C	ustody S	eals Intact	
a	mardi	Period	rel	4/17/13 Date/Time			Wel B	W				Da	ate/Tir	ne	4/0/13/7:08	Cooler Te	mp.				
Relin	quished by			Company	1		Received by	,						Compa		Condition		C	ustody S	eals Intact	
				Date/Time								Da	ate/Tir	ne		Cooler Te	mp.				
Prese	ervatives: (Other	; Specify):					0 (none); 1 (4 [(pH<2), 4Deg (Deg C); 2 (H C); 11 (4C N	Cl pH<2); 3 (aOH (pH>12	(HNO3 p	oH<2); 4 orbic Acid	(H2SO d); 12 (4 pH< 4C H2	2); 5 (Na(SO4 (pH-	OH pH>12); 6 (NaOH, <2) & Na2S2O3); 13 (2	Zn Acetate) Zn Acetate);	7 (H2SO4 sp (special i	(pH<2), 4 D instructions	leg C)); 8	(HCI pH<2); 9 (HCI 4 De	eg C); 10 (HNO3







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ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17601 Honeywell International, Inc. 101 Columbia Road MEY-3 Morristown NJ 07962

May 06, 2013

Project: Baltimore Inner Harbor, MD

Submittal Date: 04/25/2013 Group Number: 1385651 SDG: BHB05 PO Number: 4500013806 State of Sample Origin: MD

Client Sample Description	<u>Lancaster Labs (LLI) #</u>
30905_DLF_1_42413 Grab Surface Water	7035287
30905_DL_1_42413 Grab Surface Water	7035288
30905_DLF_2_42413 Grab Surface Water	7035289
30905_DL_2_42413 Grab Surface Water	7035290
30905_DLF_3_42413 Grab Surface Water	7035291
30905_DL_3_42413 Grab Surface Water	7035292
30905_DLF_4_42413 Grab Surface Water	7035293
30905_DL_4_42413 Grab Surface Water	7035294
30905_DLDF_4_42413 Grab Surface Water	7035295
30905_DLD_4_42413 Grab Surface Water	7035296
30905_FBF_1_42413 Grab Water	7035297
30905_EBF_1_42413 Grab Water	7035298
30905_FB_1_42413 Grab Water	7035299
30905_EB_1_42413 Grab Water	7035300

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC	Honeywell International	Attn: Ken Biles
COPY TO		
ELECTRONIC	Critigen	Attn: Amy Klopper
COPY TO		
ELECTRONIC	CH2M Hill, Inc.	Attn: Robert Steele
COPY TO		
ELECTRONIC	Honeywell	Attn: Katherine Beach
COPY TO		
ELECTRONIC	Honeywell International, Inc.	Attn: Rakesh Singh
COPY TO		



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ELECTRONIC	Honeywell International, Inc.	Attn: Peeyush Gupta
COPY TO		
ELECTRONIC	CH2M Hill, Inc.	Attn: Bernice Kidd
COPY TO		
ELECTRONIC	Honeywell International, Inc.	Attn: Bindu Lingaiah
COPY TO		
ELECTRONIC	Honeywell International, Inc.	Attn: Lakshmi Devi
COPY TO		
ELECTRONIC	Honeywell International, Inc.	Attn: Parthiban P
COPY TO		
ELECTRONIC	Honeywell International, Inc.	Attn: Aruna Chandraskekar
COPY TO		
ELECTRONIC	Honeywell International, Inc.	Attn: Suraj Nayak
COPY TO		

Respectfully Submitted,

Wendy A. Kozma

Principal Specialist Group Leader

Wendy a. Kenn

(717) 556-7257



2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax; 717-656-2681 • www.LancasterLabs.com

Sample Description: 30905 DLF 1 42413 Grab Surface Water

Baltimore Inner Harbor

LLI Sample # WW 7035287 LLI Group # 1385651 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/24/2013 12:25 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/06/2013 08:11 Morristown NJ 07962

905F1 SDG#: BHB05-01

Submitted: 04/25/2013 16:45

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals 07051	Dissolved Chromium	SW-846	6010B 7440-47-3	mg/1 0.0033 J	mg/1 0.0011	mg/1 0.0100	1
Wet Ch	nemistry Total Cyanide (water	SW-846	9012A 57-12-5	mg/1 N.D.	mg/1 0.0050	mg/1 0.010	1

General Sample Comments

This sample was field filtered for dissolved metals and cyanide.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131201848006	05/04/2013	03:33	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131201848006	05/01/2013	11:00	James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	13120117101A	05/01/2013	08:26	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	2	13120117101A	04/30/2013	11:10	Carolyn M Mastropietro	1



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Sample Description: 30905 DL 1 42413 Grab Surface Water

Baltimore Inner Harbor

LLI Sample # WW 7035288 LLI Group # 1385651 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/24/2013 12:25 by AP Hone

Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/06/2013 08:11 Morristown NJ 07962

905D1 SDG#: BHB05-02

Submitted: 04/25/2013 16:45

As Received As Received

As Received Limit of

CAT As Received Method Limit of Dilution No. Analysis Name CAS Number Result Detection Limit* Quantitation Factor

Metals SW-846 6010B mg/l mg/l mg/l

07051 Chromium 7440-47-3 0.0072 J 0.0011 0.0100 1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131201848006	05/04/2013	03:37	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	131201848006	05/01/2013	11:00	James L Mertz	1



2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax; 717-656-2681 • www.LancasterLabs.com

Sample Description: 30905 DLF 2 42413 Grab Surface Water

Baltimore Inner Harbor

LLI Sample # WW 7035289 LLI Group # 1385651 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/24/2013 11:55 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/06/2013 08:11 Morristown NJ 07962

905F2 SDG#: BHB05-03

Submitted: 04/25/2013 16:45

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals 07051	Dissolved Chromium	SW-846	6010B 7440-47-3	mg/1 0.0078 J	mg/1 0.0011	mg/1 0.0100	1
Wet Ch	nemistry Total Cyanide (wate	SW-846	9012A 57-12-5	mg/l N.D.	mg/l 0.0050	mg/l 0.010	1

General Sample Comments

This sample was field filtered for dissolved metals and cyanide.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131201848006	05/04/2013	03:49	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131201848006	05/01/2013	11:00	James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	13120117101A	05/01/2013	08:27	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	2	13120117101A	04/30/2013	11:10	Carolyn M Mastropietro	1



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Sample Description: 30905 DL 2 42413 Grab Surface Water

Baltimore Inner Harbor

LLI Sample # WW 7035290 LLI Group # 1385651

Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/24/2013 11:55 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/06/2013 08:11 Morristown NJ 07962

905D2 SDG#: BHB05-04

Submitted: 04/25/2013 16:45

As Received As Received

CAT As Received Method Limit of

CAT No. Analysis Name CAS Number Result Method Limit of Dilution Factor

Metals SW-846 6010B mg/l mg/l mg/l

07051 **Chromium** 7440-47-3 **0.0100** 0.0011 0.0100 1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131201848006	05/04/2013	03:52	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	131201848006	05/01/2013	11:00	James L Mertz	1



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Sample Description: 30905 DLF 3 42413 Grab Surface Water

Baltimore Inner Harbor

LLI Sample # WW 7035291 LLI Group # 1385651

Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/24/2013 11:25 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/06/2013 08:11 Morristown NJ 07962

905F3 SDG#: BHB05-05

Submitted: 04/25/2013 16:45

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals 07051	Dissolved Chromium	SW-846	6010B 7440-47-3	mg/1 0.0082 J	mg/1 0.0011	mg/1 0.0100	1
	emistry Total Cyanide (water	SW-846	9012A 57-12-5	mg/l N.D.	mg/1 0.0050	mg/1 0.010	1

General Sample Comments

This sample was field filtered for dissolved metals and cyanide.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131201848006	05/04/2013	03:56	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131201848006	05/01/2013	11:00	James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	13120117101A	05/01/2013	08:30	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	2	13120117101A	04/30/2013	11:10	Carolyn M Mastropietro	1



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Sample Description: 30905 DL 3 42413 Grab Surface Water

Baltimore Inner Harbor

LLI Sample # WW 7035292 LLI Group # 1385651 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/24/2013 11:25 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/06/2013 08:11 Morristown NJ 07962

905D3 SDG#: BHB05-06

Submitted: 04/25/2013 16:45

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

07051 Chromium 7440-47-3 0.0235 0.0011 0.0100 1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
07051	Chromium	SW-846 6010B	1	131201848006	05/04/2013	04:00	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	131201848006	05/01/2013	11:00	James L Mertz	1
	rec)							



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Sample Description: 30905_DLF_4_42413 Grab Surface Water

Baltimore Inner Harbor

LLI Sample # WW 7035293 LLI Group # 1385651

Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/24/2013 10:20 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/06/2013 08:11 Morristown NJ 07962

905F4 SDG#: BHB05-07

Submitted: 04/25/2013 16:45

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals 07051	Dissolved Chromium	SW-846	6010B 7440-47-3	mg/1 0.106	mg/1 0.0011	mg/1 0.0100	1
Wet Ch	n emistry Total Cyanide (water	SW-846	9012A 57-12-5	mg/l N.D.	mg/1 0.0050	mg/l 0.010	1

General Sample Comments

This sample was field filtered for dissolved metals and cyanide.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory	Sample	Analysis	Record
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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131201848006	05/04/2013	03:11	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131201848006	05/01/2013	11:00	James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	13120117101A	05/01/2013	08:32	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	2	13120117101A	04/30/2013	11:10	Carolyn M Mastropietro	1



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Sample Description: 30905 DL 4 42413 Grab Surface Water

Baltimore Inner Harbor

LLI Sample # WW 7035294 LLI Group # 1385651

Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/24/2013 10:20 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/06/2013 08:11 Morristown NJ 07962

905D4 SDG#: BHB05-08

Submitted: 04/25/2013 16:45

CAT Analysis Name CAS Number Result As Received As Received Limit of Detection Limit* Quantitation Factor

Metals SW-846 6010B mg/l mg/l mg/l

07051 **Chromium** 7440-47-3 **0.121** 0.0011 0.0100 1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
07051	Chromium	SW-846 6010B	1	131201848006	05/04/2013	04:05	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	131201848006	05/01/2013	11:00	James L Mertz	1
	rec)							



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Sample Description: 30905 DLDF 4 42413 Grab Surface Water

Baltimore Inner Harbor

LLI Sample # WW 7035295 LLI Group # 1385651

Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/24/2013 10:23 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/06/2013 08:11 Morristown NJ 07962

F05F4 SDG#: BHB05-09FD

Submitted: 04/25/2013 16:45

CAT No. Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved 07051 Chromium	SW-846	6010B 7440-47-3	mg/1 0.0105	mg/1 0.0011	mg/1 0.0100	1
Wet Chemistry 08255 Total Cyanide (water	SW-846	9012A 57-12-5	mg/l N.D.	mg/l 0.0050	mg/1 0.010	1

General Sample Comments

This sample was field filtered for dissolved metals and cyanide.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131201848006	05/04/2013 (04:08	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131201848006	05/01/2013	11:00	James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	13120117101A	05/01/2013 (08:33	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	2	13120117101A	04/30/2013	11:10	Carolyn M Mastropietro	1



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Sample Description: 30905 DLD 4 42413 Grab Surface Water

Baltimore Inner Harbor

LLI Sample # WW 7035296 LLI Group # 1385651

Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/24/2013 10:23 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/06/2013 08:11 Morristown NJ 07962

D05D4 SDG#: BHB05-10FD

Submitted: 04/25/2013 16:45

As Received As Received

As Received Limit of

CAT As Received Method Limit of Dilution No. Analysis Name CAS Number Result Detection Limit* Quantitation Factor

Metals SW-846 6010B mg/l mg/l mg/l

07051 Chromium 7440-47-3 0.0116 0.0011 0.0100 1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131201848006	05/04/2013	04:12	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	131201848006	05/01/2013	11:00	James L Mertz	1



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Sample Description: 30905 FBF 1 42413 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7035297 LLI Group # 1385651 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/24/2013 10:50 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/06/2013 08:11 Morristown NJ 07962

905FF SDG#: BHB05-11FB

Submitted: 04/25/2013 16:45

CAT No. Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved 07051 Chromium	SW-846	6010B 7440-47-3	mg/l N.D.	mg/1 0.0011	mg/1 0.0100	1
Wet Chemistry 08255 Total Cyanide (wate:	SW-846	9012A 57-12-5	mg/l N.D.	mg/1 0.0050	mg/l 0.010	1

General Sample Comments

This sample was field filtered for dissolved metals and cyanide.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131201848006	05/04/2013 04:1	6 John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131201848006	05/01/2013 11:0	O James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	13120117101A	05/01/2013 08:3	4 K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	2	13120117101A	04/30/2013 11:1	O Carolyn M Mastropietro	1



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Sample Description: 30905 EBF 1 42413 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7035298 LLI Group # 1385651 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/24/2013 11:00 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 05/06/2013 08:11 Morristown NJ 07962

905EF SDG#: BHB05-12EB

Submitted: 04/25/2013 16:45

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
	Dissolved Chromium	SW-846	6010B 7440-47-3	mg/l N.D.	mg/l 0.0011	mg/l 0.0100	1
	emistry Total Cyanide (water	SW-846	9012A 57-12-5	mg/1 N.D.	mg/1 0.0050	mg/l 0.010	1

General Sample Comments

This sample was field filtered for dissolved metals and cyanide.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131201848006	05/04/2013 04:2) John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131201848006	05/01/2013 11:0) James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	13120117101A	05/01/2013 08:3	7 K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	2	13120117101A	04/30/2013 11:1	Carolyn M Mastropietro	1



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Sample Description: 30905 FB 1 42413 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7035299 LLI Group # 1385651 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 04/24/2013 10:50 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962 Reported: 05/06/2013 08:11

905FB SDG#: BHB05-13FB

Submitted: 04/25/2013 16:45

As Received As Received Method Limit of CAT As Received Dilution Analysis Name CAS Number Detection Limit* Quantitation No. Result Factor

SW-846 6010B mg/1mg/l Metals

07051 Chromium 7440-47-3 0.0011 0.0100

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131201848006	05/04/2013	04:24	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131201848006	05/01/2013	11:00	James L Mertz	1



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Sample Description: 30905 EB 1 42413 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7035300 LLI Group # 1385651 Account # 10651

Factor

Project Name: Baltimore Inner Harbor, MD

Collected: 04/24/2013 11:00 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962 Reported: 05/06/2013 08:11

905EB SDG#: BHB05-14EB*

No.

Submitted: 04/25/2013 16:45

As Received As Received Method Limit of CAT As Received Dilution Analysis Name CAS Number Detection Limit* Quantitation

SW-846 6010B mg/1mg/l Metals

07051 Chromium 7440-47-3 0.0011 0.0100

Result

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131201848006	05/04/2013	04:35	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131201848006	05/01/2013	11:00	James L Mertz	1



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Page 1 of 1

Quality Control Summary

Client Name: Honeywell International, Inc. Group Number: 1385651

Reported: 05/06/13 at 08:11 AM

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank MDL**	Blank <u>LOO</u>	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 131201848006 Chromium	Sample numb		35287-7035 0.0100		107		90-110		
Batch number: 13120117101A Total Cyanide (water)	Sample numb		35287,703! 0.010	5289,7035291 mg/l	,703529 93	93,7035	295,7035297 90-110	-70352	98

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS MSD <u>%REC</u> <u>%REC</u>	MS/MSD <u>Limits</u>	RPD	RPD <u>MAX</u>	BKG <u>Conc</u>	DUP <u>Conc</u>	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: 131201848006 Chromium	Sample number(109 106	s): 7035287 81-120		0 UNSP 20	K: 7035293 0.106	BKG: 703529	3 0	20
Batch number: 13120117101A	Sample number(,703528	9,7035	291,7035293	,7035295,70	35297-70352	98 UNSPK:
Total Cyanide (water)	89	43-137			N.D.	N.D.	0 (1)	20

^{*-} Outside of specification

^{**-}This limit was used in the evaluation of the final result for the blank

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

- < less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- greater than
- J estimated value The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis

Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Inorganic Qualifiers

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

Α	TIC is a possible aldol-condensation product	В	Value is <crdl, but="" th="" ≥idl<=""></crdl,>
В	Analyte was also detected in the blank	E	Estimated due to interference
С	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
Ε	Concentration exceeds the calibration range of	S	Method of standard additions (MSA) used
	the instrument		for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
Р	Concentration difference between primary and	W	Post digestion spike out of control limits
	confirmation columns >25%	*	Duplicate analysis not within control limits
U	Compound was not detected	+	Correlation coefficient for MSA < 0.995
X,Y,Z	Defined in case narrative		

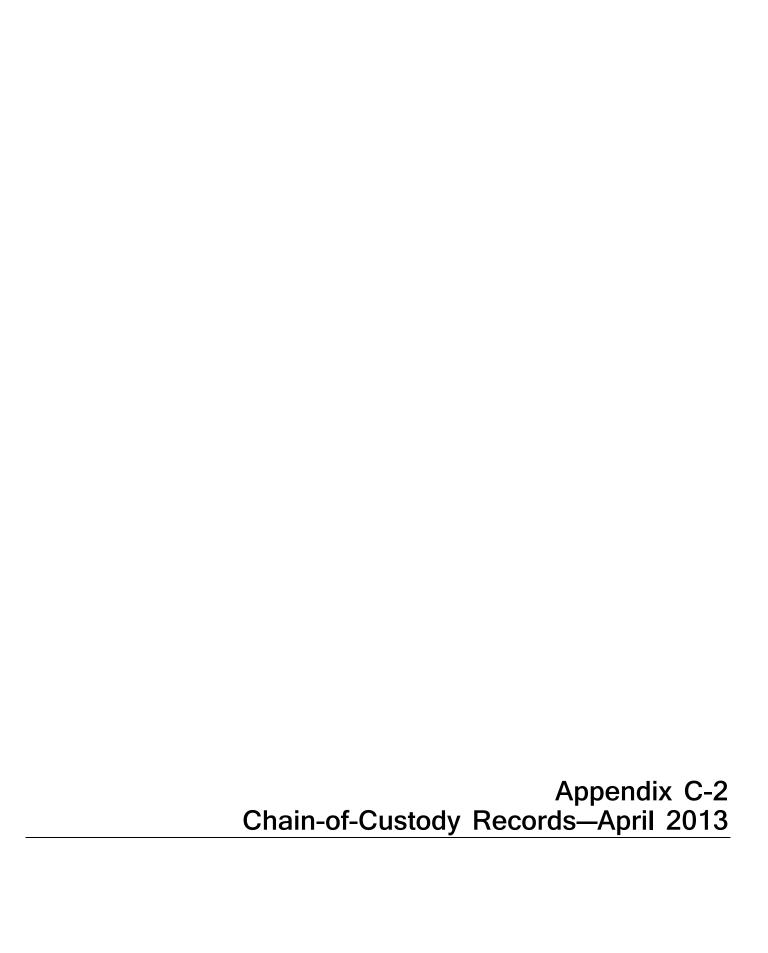
Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

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

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

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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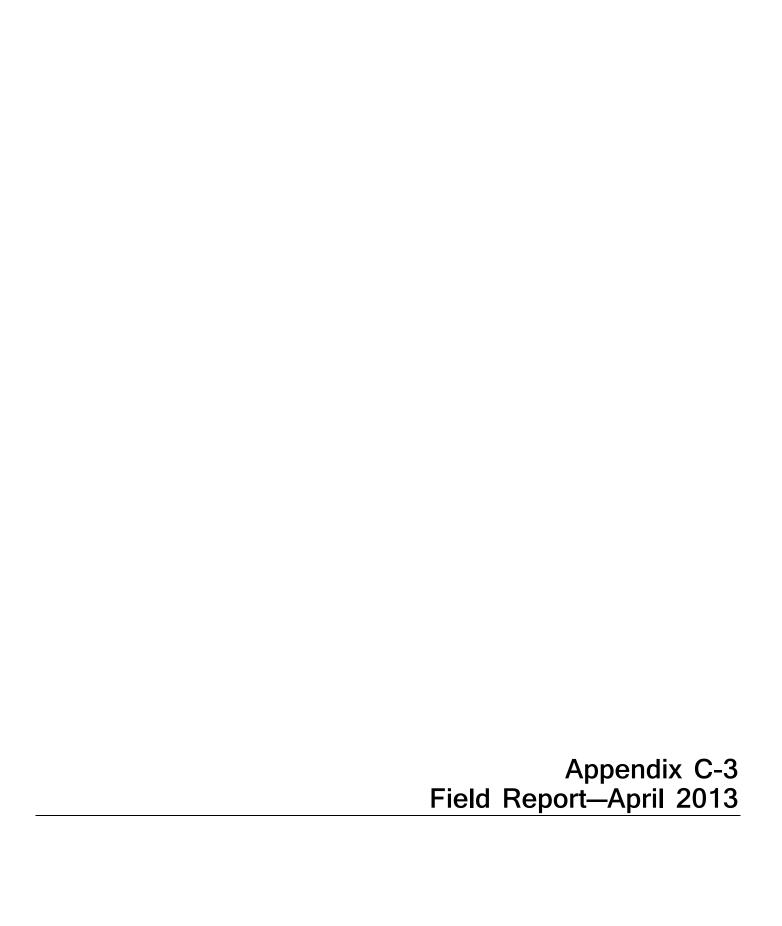
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	nt Contact: (na	ne, co.,	address	8)	Sampler: PO #	Amanda Po 450001380		were	A VOE		Preservi	tive	3	5	_	十	+-		\dashv	_		_		Li	ab Job #	
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	columbia Raod, Me stown, NJ 07982	yei 3				Consultant			CH2M			- 1	1	(auto)	İ					ı						Free 1 0 Tout 5ile
		kennethbil	les@ch2m	1.com								~		ide										Te	ext & Excel File Drive	Excel & Text File Order
	ole Receipt owledgement To	kennethbil	les@ch2m	n.com							٩	Filtered Sample	Ę	SW9010/9012 Total Cyanide												
		Kenneth E	Biles		Ful	li Report T	AT:		28		/Grab	ğ	romi	12 T		1										
Invoi	ce To:	Christoph	er French	NI MARKET							at t	2	Ę.	06/0								l		İ		
		Camal	le Identifi	ogtion	Sample Date	Sample Time	Sample Type	Sample Matrix	Sample Purpose	# of Cont.	Compc	Field F	SW6010 Chromium	SW901										8.0	opyright AESI: Version 0 Unauthorized use rictly prohibited.	
	Location ID	Start Depth	End Depth	Field Sample ID							Units		Jg/L	ug/L										s	Sampling Method (code)	Lab Sample Numbers
Н	001104	でる ,	(ft) 4.40	30905_DLF_1_42413	4/24/2013	12:25	w-sw	WATER	REG	2	grab	Υ	X	×												
-	SSMP1	430	4.40			12:25				1	arab	N	х													
2	SSMP1		2.40	30905_DL_1_42413	4/24/2013	11:55	w-sw w-sw	WATER	REG_	2	grab grab	Y	x	x	十		-				\neg					
3	SSMP2	_	2.40	30905_DLF_2_42413 30905_DL_2_42413	4/24/2013	11:55	W-SW	WATER	REG	1	grab	N	X				-									
4	SSMP2			30905_DL_2_42413	4/24/2013					<u> </u>					$\neg \uparrow$											
5	SSMP3	2.75	7.05	30905_DLF_3_42413	4/24/2013	11:25	W-SW	WATER	REG	2_	grab	Υ	Х	X	+		-	├	\vdash				- -	\dashv		
6	SSMP3	2.75	7.05	30905_DL_3_42413	4/24/2013	11:25	w-sw	WATER	REG	1	grab	N	Х	\vdash	-	+	<u> </u>	 	-			\dashv		+		
7	SSMP4	3.70`	7.10	30905_DLF_4_42413	4/24/2013	10:20	w-sw	WATER	REG	2	grab	Y	Х	х	\dashv	_	_	-					-	\dashv		
8	SSMP4	370	7.10	30905_DL_4_42413	4/24/2013	10:20	w-sw_	WATER	REG	1	grab	N	Х			_	-						_	_		
9	SSMP4	3. 70	7.10	30905_DLDF.442413	4/24/2013	10:23	W-SW	WATER	FD	2	grab	Υ	х	x		_		-					_	4		
10	SSMP4	3.70	7.10,	30905_DLD_4_42413	4/24/2013	10:23	w-sw	WATER	FD_	1	grab	N	Х			_		ļ_	<u> </u>		\square		_	\dashv		
11	FIELD QC	_	_	30905_FBF_1_42413	4/24/2013	വ: ടം	BLKWATER	WATER	FB	2	grab	Υ	х	x		_		-			\vdash		_	+		
12	FIELD QC	_		30905_EBF_1_42413	4/24/2013	11:00	BLKWATER	WATER	EB	2	grab	Υ	Х	х				<u> </u>								
Reli	nquished by			MES Compar	ту		Received by	1						Com	pany	Him	HELL	Con	dition				Custod	y Sea	als Intact	
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Reli	nauished by	· IW	A	Compar	ny ny		Received by	<u> </u>	2 .					Com	pany	<u>' ' ' ('</u>	LI	Con	dition		:44:	aiy	Custod	ly Sea	als Intact	Λυ
	Son for 1	VIII	<u>~</u>	4/25/13 Date/Time		-	The				4.5	25 ·)	ate/Ti	me /oʻ.	22			Coo	ler Tem	np.	10.					
	servatives: (Other	Lin		425-13 1645	7		0 (none); 1 (4 (pH<2), 4Deg	Deg C); 2 (H C); 11 (4C N	1Cl pH<2); 3	(HNO3	oH<2); 4	(H2SC)4 pH- (4C H:	<2); 5 (N 2SO4 (p	iaOH p H<2) 8	H>12); Na2S2	6 (NaOH !O3); 13	Zn Ac	etate); etate); s	7 (H25 sp (spe	6O4 (ph	l<2), 4 truction	Deg C)); 8 (H	HCI pH<2); 9 (HCI 4 D	eg C); 10 (HNO3

Bz: 4/25/13 1045

10651/1385651/7035287-300

one	caster Labo	ratorios																			-			AESI Ref:	41386.3486
	New Holland Pike				H	one	ywel		Chain	Of C	ustod	y/A	naly	/sis	Reque	est								COC#	30905-4241
	ster, PA 17605-2	425			<u></u>						Ι		_					—т	_	Т				Lab Proj # (SDG):	
17) (656-2300				Privileged &	Confident	ial	N			Site N	ame:		Baltin	ore				Phase:					<u> </u>	
amı	pling Co.:	Maryland	Environme	ental Service	EDD To:		Locus Focus I	EIM			Locati	on of S	ite:	BALT	MORE,	MD			Samplii Prograi					Lab ID	LU
	it Contact: (na	me. co	address	s)	Sampler:	Amanda P	Peñafiel														1			Site ID	BALTIMO
	opher French	, , ,			PO #	45000138	06				Preserv	ative	3	5	0									Lab Job #	<u> </u>
1 C	olumbia Raod, Me	eyer 3			Analysis T		Time (TAT):		14					(Ŷ	(auto)				ļ.					Authorized User:	Honeyw
	town, NJ 07982	Language et la fail	loo (ii) ob Ope	2.000		Consultan	nt		CH2M		1			(a)	e (a								- [Text & Excel File Driv	Excel & Te
elin	ninary Data To	<u>kennethbi</u>									4 I	2		anid	anid				ĺ					TEXT & EXCEPTIVE DITO	Order
	le Receipt	kennethbi	les@ch2m	1.com							ا ۾ ا	Sample	ا ۽	် ကို	Total Cyanide				-						
	owledgement To Copy To	Kenneth E	Biles		E.	ıll Report T	ΔΤ.		28		osite/Grab	<u> </u>	ji	Tot	Tot							1	- 1		
	e To:	Christoph		-W		iii neport i	A1:					<u> </u>	Chro	9012	9012	1	1					l			
70.0					2	Ī	C1-	Sample	Sample	# of	」 <u>합</u>	Field Filtered	SW6010 Chromium	SW9010/9012 Total Cyanide (auto)	SW9010/9012						-			Copyright AESI: Version	
		Samn	le Identific	cation	Sample Date	Sample Time	Sample Type	Matrix	Purpose	1	Compc	Ĭ	Swe	SW8	SW8									8.0 Unauthorized use strictly prohibited.	
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-	Location ID	Depth	Depth	Field Sample ID		l .			352		Units		ug/L	Υ ₀	정	1	1					1		Sampling Method (code)	Lab San Numbe
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L	FIELDQC	0.0	0.0	30905_FB_1_42413	4/24/2013	10:50	BLKWATER	WATER	FB	1	grab	N	Х				ļ		_	+		+-	+		
	FIELDQC	0.0	0.0	30905_EB_1_42413	4/24/2013	11:00	BLKWATER	WATER	EB	1	grab	N	х												<u> </u>
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B	rent /	Juss		4/25/13			16				1/12	يحاا		Bus	5						1.0				
	4/2	1		425-13 164	d		0 (none): 1 (4	Dea C): 2 (H	ICI pH<2): 3	(HNO3	pH<2): 4	(H2SO	4 nH	<21· 5 (I	NaOH nH	-12)· 6	NaOH	Zn Ace	tate). 7	H2SC	4 (nH<2)). 4 D	ea Cili	8 (HCI pH<2); 9 (HCI 4	Deg C); 10 (H



BALTIMORE INNER HARBOR DRAINAGE LAYER MONITORING

April 24, 2013





METER CALIBRATION LOG

PO	IF	CT.									v							l	Vote	ebo	ok Cont	No.	Fro	m Pa	ge _	_					
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3/1	3/17	/13 3 /13 /13 /13	>	03 08 08 08	34 27 03	0	1	12 / S / S / S	I I RI I	63 53 63 53	Ī	7	, 4, 4, 4, 7	10	~\	R) 3 A B	PD E. AP		FOORS	1 K	+ 1 h - h d	Su ET W eT	N/ No	Con non non	ce ex H	OR	N in	and Sas	er		
	*	r a			100					31.			4			d.						100				2				× ×	

Read and Understood By

Signed Date Signed Date



4/24/13 BIH Drainage Layer Sampling Amarda Peñafiel, Rachel Giriner Weather Conditions: SSMP 2 sunny , breezy, 70's 30905-DLF-2-42313 Sample Number: 30905_DL-2 42313 sample collection Time: 11:55 Depth to Bottom: 4.85'
Depth to Water: 2.15' ending water level: 240' pH (units): 6.85 DO (mg/L) : 654 Specific Conductance (as/us): 1.16
Turbidity (NTU): 0.2

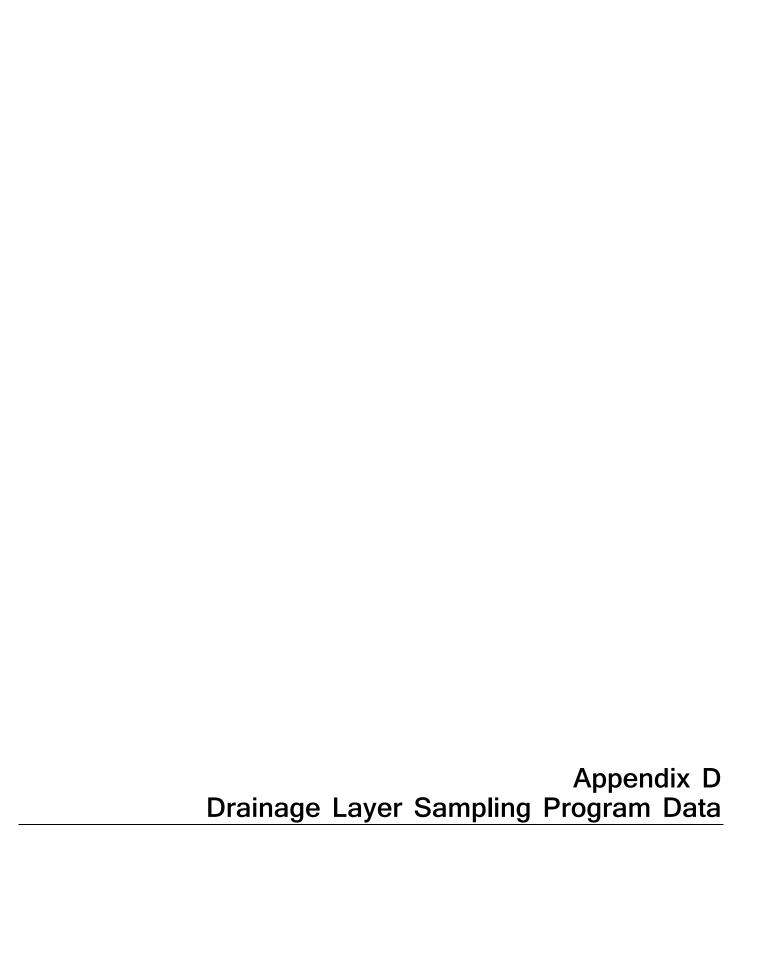
ORP (MV): 144

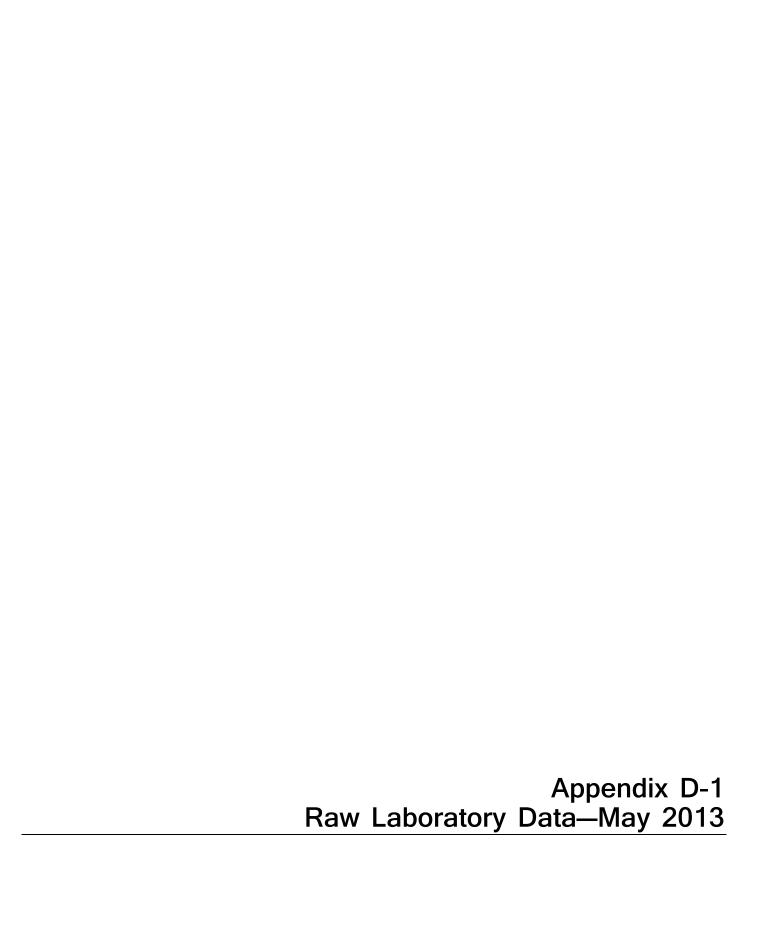
Temperature (°C): 17.77 SSMP 30905_ DLF_ 1-42313 Sample number 1 30905_DL_1_42313 Sample Collection Time: 12:25 7H (units): 10.76 DO (ng/L): 5.67 Specific Conductance (ms/us): 0.986 Turbidity (NTU): 5.8 ORP (Mr): 159 Terperative (c): 16.81 depth to water: 4.20' ending water level: 440 depth' to bottom: 4.60'



Lancaster Laboratories	boratories	(0													AESI Ref:	41386.36042
2425 New Holland Pike	Pike			Ť	Honeyw	WAR		Chain Of Custody / Analysis Request	f Custoo	dy / Ans	Alysis F	Request			#202	30905-042413- 01
Lancaster, PA 17605-2425	15-2425			1											_	
(717) 656-2300				Privileged & Confidential	Confidentia		z		Site Name:	lame:	Baltimore	376	Phase:		Lab Proj # (SDG):	
Sampling Co.:	Maryland E	Environme	Maryland Environmental Service	EDD To:		Locus Focus EIM	MIE		Locat	Location of Site:	BALTIMORE,	AORE, MD	Sampling Program		Lab ID	3
Client Contact: (name, co., address)	(name, co.,	address		Sampler:	Amanda Peñafiel	. 3	whole	Fachel Galner		\vdash					Site ID	BALTIMORE
Christopher French					4500013806				Preservative	vative 3	S				Lab Job #	
101 Columbia Raod, Meyer 3	, Meyer 3			Analysis Turnaround Time (T	Irnaround T	ime (TAT):		14			(0)				Authorized User:	Honeywell
Morristown, NJ 07982					Consultant			CH2M			(snp					
Preliminary Data To	o kennethbiles@ch2m.com	les@ch2π	<u> </u>							ė	əpju				Text & Excel File Drive	Excel & Text File Order
Sample Receipt		kennethbiles@ch2m.com	moor													
Hard Copy To		Siles		1 1	Full Report TAT.	Ĺ		86	de15	_	_					
Invoice To:	Christopher French	er French	ALD DADDA	3				3)/eile	_						<
			:	Sample	Sample	Sample			odwo	ield Fi	0106W				Copyright AESt: Version 8.0 Unauthorized use	
	Samp	Sample Identification	cation	Date	e l	edk	Matrix	Purpose	Cont.	+	+				strictly prohibited.	
Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID						Units		J/gu				Sampling Method (code)	Lab Sample Numbers
1 SSMP1	(4.80) 4.40	4.40	30905_DLF_1_42413	4/24/2013	12:25	WS-W	WATER	REG	2 grab	× >	×					
2 SSMP1	2	4.40	30905_DL_1_42413	4/24/2013	12:25	W-SW	WATER	REG	1 grab	z						
3 SSMP2	2.15 2.40	2.40	30905_DLF_2_42413	4/24/2013	11:55	W-SW	WATER	REG	2 grab	×	×					
4 SSMP2	2.15 2.40	2.40	30905_DL_2_42413	4/24/2013	11:55	W-SW	WATER	REG	1 grab	z						
5 SSMP3	1.75 7.05	1.05	30905_DLF_3_42413	4/24/2013	52:11	W-SW	WATER	REG	2 grab	×	×					
6 SSMP3	12.75 7.05	7.05	30905 DL 3_42413	4/24/2013	11:25	W-SW	WATER	REG	1 grab	z						
7 SSMP4	3.70, 7.10,	7.10,	30905_DLF_4_42413	4/24/2013	07:0	W-SW	WATER	HEG	2 grab	× >	×					
8 SSMP4	3%	4.0,	30905_DL_4_42413	4/24/2013 10:22	6:20	W-SW	WATER	REG	1 grab	z						
9 SSMP4	13.70,7.10)	4.10,	30905_DLDF 442413	4/24/2013	10:23	w-sw	WATER	FD	2 grab	× ->	×					
10 SSMP 4	4 3.70 7.10	17	30905_DLD 4 42413	4/24/2013	10:33	WS-W	WATER	6	1 grab	z						
11 FIELD QC	(1	30905_FBF_1_42413	4/24/2013	10:50	O:SO BLKWATER	WATER	æ	2 grab	× >	×					
12 FIELD QC	(١	30905_EBF_1_42413	4/24/2013	1:00	11:00 BLKWATER	WATER	8	2 grab	× >	×					
Relinquished by			WES Company		ш.	Received by	, ,		_		Сотр	Company CHAM NELL CO	Condition	Custody	Custody Seals Intact	
amond	S TONE	7	4/23/1 Sate/Time 12:50			11/18				Date/Time	Time	1/24//3/2/2	Cooler Temp.			
Relinquished by		1	Company		٩	Received by					Company		Condition	Custody	Custody Seals Intact	
			Date/Time							Date/Time	Time	o	Cooler Temp.			
Preservatives: (Other; Specify):	ıer; Specify);				0.5	(none); 1 (4 E	beg C); 2 (HCl	1 pH<2); 3 (HN 2H (pH>12) &	IO3 pH<2); 4 Ascorbic Aol	(H2SO4 pt (d); 12 (4C.)	1-2); 5 (Na	OH pH>12); 6 (NaOH, Zn <2) & Na2S2O3); 13 (Zn /	Acetate); 7 (H2S cetate); sp (spec	O4 (pH<2), 4 Deg C));	0 (none); 1 (4 Deg C); 2 (HCl pH<2); 3 (HNO3 pH<2); 4 (H2SO4 pH<2); 5 (NaOH pH>12); 6 (NaOH, Zh Acetate); 7 (H2SO4 (pH<2); 4 Deg C); 8 (HCl pH<2); 8 (HCl pH<2); 9 (HCl ADH (pH<2); 4 Deg C); 11 (4C NaOH (pH>12); 8 Ascorbic Add); 12 (4C H2SO4 (pH<2); 8 Na22SOG); 13 (Zh Acetate); 55 (special instructions)	g C); 10 (HNO3
														The state of the s		

Lancaster Laboratories	ratories	(A)								:	:				AESI Ref:	41386.34866
2425 New Holland Pike	(e) 2425			Ĭ	Honeyw	ywell		Chain O	t Custo	ody / Ar	nalysı	Chain Of Custody / Analysis Request			#303	30905-42413-02
(717) 656-2300				Privileged & Confidential	Confidentia	JE.	z		Site	Site Name:	Balt	Baltimore	<u>£</u>	Phase:	Lab Proj # (SDG):):
Sampling Co.:	Maryland	Environme	Maryland Environmental Service	EDD To:		Locus Focus EIM	MI		Locs	Location of Site:		BALTIMORE, MD	ž d	Sampling Program	Lab ID	H
Client Contact: (name, co., address)	ame, co.,	, address		Sampler:	Amanda Peñafiel	ıñafiel			H		H				Site ID	BALTIMORE
Christopher French					4500013806	و			Press	Preservative	3 5	0			Lab Job #	Н
101 Columbia Raod, Meyer 3	leyer 3			Analysis Turnaround Time (TAT):	rnaround	Time (TAT):		14			(of	-			Authorized User:	: Honeywell
Morristown, NJ 07982					Consultant			CH2M	T		ne) e	_				Eyenl 2 Tayl Ella
Preliminary Data To		kennethbiles@ch2m.com	woo							2 6	əpina				Text & Excel File Drive	
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Invoice To:	Christoph	Christopher French					14		efie	ilter:	_	-				<
	Samp	Sample Identification	ation	Sample Date	Sample	Sample Type	Sample Matrix	Sample # Purpose Co	Conf.	7 blei7	109WS	106MS			Copyright AESI: Version 8.0 Unauthorized use strictly prohibited.	u _o
Location ID	Start Depth (ft)	(ft)	Field Sample ID						Units	\$	7/6n 7/6n	7/6n			Sampling Method (code)	od Lab Sample Numbers
1 FIELDQC	0.0	0.0	30905_FB_1_42413	4/24/2013	10:50	BLKWATER	WATER	EB	1 grab	z	×					
	C	C	30005 FR 1 40413	GO: 11 .00		RI KWATER	WATER	8	1 arab	z	×					
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March	Penas	350	423/2 Date/Time 50							Dat	Date/Time		Cooler Temp.	етр.		
Remodulished by			Company			Received by					ŭ	Сотрапу	Condition		Custody Seals Intact	
			Date/Time							Dat	Date/Time		Cooler Temp.	етр.		
Preservatives: (Other: Specify):	: Specify):					0 (none); 1 (4 [Jeg C); 2 (Hi	CI pH<2); 3 (HI)	NO3 pH<2)); 4 (H2SO4 Acid): 12 (4	t pH<2); 5 C H2SO4	(NaOH pH>12); 6 (NaOH	, Zn Acetal	0 (none); 1 (4 Deg C); 2 (HCI 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 (HCI pH-2); 9 (HCI 4 Deg C); 10 (HNO3 (nH-2); 1 (4C NaOH (pH-2); 8 (HCI pH-2); 9 (HCI 4 Deg C); 10 (HNO3 (nH-2); 1 (4C NaOH (pH-2); 8 (HCI pH-2); 9 (HCI 4 Deg C); 10 (HNO3 (nH-2); 1 (4C NaOH (pH-2); 9 (HCI 4 Deg C); 10 (HNO3 (nH-2); 1 (HO 1 PH-2); 9 (HCI 4 Deg C); 10 (HNO3 (nH-2); 1 (HO 1 PH-2); 1 (HCI 4 DEG C); 10 (HO 1 PH-2); 1 (HO 1 PH-2); 10 (HCI 4 DEG C); 10 (HO 1 PH-2); 10 (HO 1 PH	C)); 8 (HCl pH<2); 9 (HCl	4 Deg C); 10 (HNO
						(- · · · · · · · · · · · · · · · · · ·	1			1 dans				,		







2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17601 Honeywell International, Inc. 101 Columbia Road MEY-3 Morristown NJ 07962

June 05, 2013

Project: Baltimore Inner Harbor, MD

Submittal Date: 05/23/2013 Group Number: 1392211 SDG: BHB09 PO Number: 4500013806 State of Sample Origin: MD

Lancaster Labs (LLI) #
7068410
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7068412
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7068420
7068421
7068422
7068423

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC	Honeywell International	Attn: Ken Biles
COPY TO ELECTRONIC	Critigen	Attn: Amy Klopper
COPY TO	2217821	,,
ELECTRONIC	CH2M Hill, Inc.	Attn: Robert Steele
COPY TO ELECTRONIC	Honeywell	Attn: Katherine Beach
COPY TO	Holley well	Aun. Kamerine Beach
ELECTRONIC	Honeywell International, Inc.	Attn: Rakesh Singh
COPY TO		



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ELECTRONIC	Honeywell International, Inc.	Attn: Peeyush Gupta
COPY TO		
ELECTRONIC	CH2M Hill, Inc.	Attn: Bernice Kidd
COPY TO		
ELECTRONIC	Honeywell International, Inc.	Attn: Bindu Lingaiah
COPY TO		
ELECTRONIC	Honeywell International, Inc.	Attn: Lakshmi Devi
COPY TO		
ELECTRONIC	Honeywell International, Inc.	Attn: Parthiban P
COPY TO		
ELECTRONIC	Honeywell International, Inc.	Attn: Aruna Chandraskekar
COPY TO		
ELECTRONIC	Honeywell International, Inc.	Attn: Suraj Nayak
COPY TO		

Respectfully Submitted,

Wendy A. Kozma

Principal Specialist Group Leader

Wendy a. Kenn

(717) 556-7257



2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax; 717-656-2681 • www.LancasterLabs.com

Sample Description: 30905 DLF 1 052313 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7068410 LLI Group # 1392211 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 05/23/2013 09:55 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 06/05/2013 08:17 Morristown NJ 07962

DL121 SDG#: BHB09-01

Submitted: 05/23/2013 15:10

CAT No.	Analysis Name		CAS Number	As Rec Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals 07051	s Dissolved Chromium	SW-846	6010B 7440-47-3	ug/1 1.8	J	ug/l 1.1	ug/1 10.0	1
Wet Cl 08255	nemistry Total Cyanide (wate	SW-846	9012A 57-12-5	ug/l N.D.		ug/1 5.0	ug/l 10	1

General Sample Comments

This sample was field filtered for dissolved metals and cyanide.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131441848007	05/27/2013	21:00	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131441848007	05/27/2013	09:30	James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	13154117101A	06/04/2013	11:42	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	1	13154117101A	06/03/2013	14:30	Carolyn M Mastropietro	1



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Sample Description: 30905 DL 1 052313 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7068411 LLI Group # 1392211 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 05/23/2013 09:55 by AP

Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962

Submitted: 05/23/2013 15:10 Reported: 06/05/2013 08:17

DF121 SDG#: BHB09-02

CAT No.	Analysis Name		CAS Number	As Reco	eived	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metal	5	SW-846	6010B	ug/l		ug/l	ug/l	
07051	Chromium		7440-47-3	3.1	J	1.1	10.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131441848007	05/27/2013	21:04	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	131441848007	05/27/2013	09:30	James L Mertz	1



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Sample Description: 30905 DLF 2 052313 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7068412 LLI Group # 1392211 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 05/23/2013 09:35 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 06/05/2013 08:17 Morristown NJ 07962

DL221 SDG#: BHB09-03

Submitted: 05/23/2013 15:10

CAT No. Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved 07051 Chromium	SW-846	6010B 7440-47-3	ug/l N.D.	ug/l 1.1	ug/l 10.0	1
Wet Chemistry 08255 Total Cyanide (water	SW-846	9012A 57-12-5	ug/l N.D.	ug/1 5.0	ug/l 10	1

General Sample Comments

This sample was field filtered for dissolved metals and cyanide.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131441848007	05/27/2013 23	1:09	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131441848007	05/27/2013 09	9:30	James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	13154117101A	06/04/2013 13	1:46	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	1	13154117101A	06/03/2013 14	4:30	Carolyn M Mastropietro	1



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Sample Description: 30905 DL 2 052313 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7068413 LLI Group # 1392211 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 05/23/2013 09:35 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 06/05/2013 08:17 Morristown NJ 07962

DF221 SDG#: BHB09-04

Submitted: 05/23/2013 15:10

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metal	S	SW-846	6010B	ug/l	ug/l	ug/l	
07051	Chromium		7440-47-3	N.D.	1.1	10.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131441848007	05/27/2013 19:31	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131441848007	05/27/2013 09:30	James L Mertz	1



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Sample Description: 30905 DLF 3 052313 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7068414 LLI Group # 1392211 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 05/23/2013 09:20 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 06/05/2013 08:17 Morristown NJ 07962

DL321 SDG#: BHB09-05

Submitted: 05/23/2013 15:10

CAT No.	Analysis Name		CAS Number	As Recei Result	ved	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals 07051	S Dissolved Chromium	SW-846	6010B 7440-47-3	ug/l 1.2	J	ug/l 1.1	ug/l 10.0	1
Wet Ch	nemistry Total Cyanide (wate	SW-846	9012A 57-12-5	ug/l N.D.		ug/1 5.0	ug/l 10	1

General Sample Comments

This sample was field filtered for dissolved metals and cyanide.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131441848006	05/27/2013	20:42	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131441848006	05/27/2013	09:22	James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	13154117101A	06/04/2013	11:47	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	1	13154117101A	06/03/2013	14:30	Carolyn M Mastropietro	1



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Sample Description: 30905 DL 3 052313 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7068415 LLI Group # 1392211 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 05/23/2013 09:20 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 06/05/2013 08:17 Morristown NJ 07962

DF321 SDG#: BHB09-06

Submitted: 05/23/2013 15:10

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metal	s	SW-846 6	6010B	ug/l	ug/l	ug/l	
07051	Chromium		7440-47-3	N.D.	1.1	10.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131441848006	05/27/2013	20:46	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131441848006	05/27/2013	09:22	James L Mertz	1



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Sample Description: 30905_DLF_4_052313 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7068416 LLI Group # 1392211 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 05/23/2013 08:40 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 06/05/2013 08:17 Morristown NJ 07962

DL421 SDG#: BHB09-07

Submitted: 05/23/2013 15:10

CAT No.	Analysis Name		CAS Number	As Rece Result	ived	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals 07051	Dissolved Chromium	SW-846	6010B 7440-47-3	ug/1 6.9	J	ug/1 1.1	ug/l 10.0	1
Wet Ch	emistry Total Cyanide (wate	SW-846	9012A 57-12-5	ug/l N.D.		ug/l 5.0	ug/l 10	1

General Sample Comments

This sample was field filtered for dissolved metals and cyanide.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131441848006	05/27/2013	19:32	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131441848006	05/27/2013	09:22	James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	13154117101A	06/04/2013	11:50	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	1	13154117101A	06/03/2013	14:30	Carolyn M Mastropietro	1



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Sample Description: 30905 DL 4 052313 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7068417 LLI Group # 1392211 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 05/23/2013 08:40 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 06/05/2013 08:17 Morristown NJ 07962

DF421 SDG#: BHB09-08

Submitted: 05/23/2013 15:10

CAT No.	Analysis Name		CAS Number	As Rec Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	5	SW-846	6010B	ug/l		ug/l	ug/l	
07051	Chromium		7440-47-3	8.3	J	1.1	10.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131441848006	05/27/2013	20:58	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	131441848006	05/27/2013	09:22	James L Mertz	1
	rec)							



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Sample Description: 30905 DLDF 4 052313 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7068418 LLI Group # 1392211 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 05/23/2013 08:45 by AP

Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962

Submitted: 05/23/2013 15:10 Reported: 06/05/2013 08:17

DD421 SDG#: BHB09-09

CAT No. Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved SW-84	6 6010B 7440-47-3	ug/1 7.3 J	ug/l 1.1	ug/1 10.0	1
Wet Chemistry SW-84	6 9012A 57-12-5	ug/l N.D.	ug/1 5.0	ug/l 10	1

General Sample Comments

This sample was field filtered for dissolved metals and cyanide.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131441848006	05/27/2013	21:02	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131441848006	05/27/2013	09:22	James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	13154117101A	06/04/2013	11:49	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	1	13154117101A	06/03/2013	14:30	Carolyn M Mastropietro	1



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Sample Description: 30905 DLD 4 052313 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7068419 LLI Group # 1392211 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 05/23/2013 08:45 by AP

Honeywell International, Inc.

101 Columbia Road

MEY-3

Morristown NJ 07962

Submitted: 05/23/2013 15:10 Reported: 06/05/2013 08:17

DDF21 SDG#: BHB09-10

CAT No.	Analysis Name		CAS Number	As Rece Result	eived	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	5	SW-846	6010B	ug/l		ug/l	ug/l	
07051	Chromium		7440-47-3	7.7	J	1.1	10.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131441848006	05/27/2013	21:06	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	131441848006	05/27/2013	09:22	James L Mertz	1



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Sample Description: 30905 FBF 1 052313 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7068420 LLI Group # 1392211 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 05/23/2013 09:00 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 06/05/2013 08:17 Morristown NJ 07962

FB121 SDG#: BHB09-11FB

Submitted: 05/23/2013 15:10

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals 07051	Dissolved Chromium	SW-846	6010B 7440-47-3	ug/l N.D.	ug/l 1.1	ug/l 10.0	1
Wet Ch	emistry Total Cyanide (wate:	SW-846	9012A 57-12-5	ug/1 N.D.	ug/1 5.0	ug/1 10	1

General Sample Comments

This sample was field filtered for dissolved metals and cyanide.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory	Sample	Analysis	Record
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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	•	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131441848006	05/27/2013 2	21:10	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131441848006	05/27/2013 0	9:22	James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	13154117101A	06/04/2013 1	1:48	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	1	13154117101A	06/03/2013 1	14:30	Carolyn M Mastropietro	1



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Sample Description: 30905 EBF 1 052313 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7068421 LLI Group # 1392211 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 05/23/2013 09:10 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 06/05/2013 08:17 Morristown NJ 07962

EB121 SDG#: BHB09-12EB

Submitted: 05/23/2013 15:10

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals 07051	Dissolved Chromium	SW-846	6010B 7440-47-3	ug/l N.D.	ug/l 1.1	ug/l 10.0	1
Wet Ch	emistry Total Cyanide (wate:	SW-846	9012A 57-12-5	ug/1 N.D.	ug/1 5.0	ug/1 10	1

General Sample Comments

This sample was field filtered for dissolved metals and cyanide.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record	Laboratory	Sample	Analysis	Record
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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131441848006	05/27/2013	21:14	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131441848006	05/27/2013	09:22	James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	13154117101A	06/04/2013	11:54	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012A	1	13154117101A	06/03/2013	14:30	Carolyn M Mastropietro	1



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Sample Description: 30905 FB 1 052313 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7068422 LLI Group # 1392211 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 05/23/2013 09:00 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 06/05/2013 08:17 Morristown NJ 07962

FF121 SDG#: BHB09-13FB

Submitted: 05/23/2013 15:10

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals 07051	Ghromium	SW-846	6010B 7440-47-3	ug/l N.D.	ug/1 1.1	ug/l 10.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131441848006	05/27/2013	21:17	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131441848006	05/27/2013	09:22	James L Mertz	1



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Sample Description: 30905 EB 1 052313 Grab Water

Baltimore Inner Harbor

LLI Sample # WW 7068423 LLI Group # 1392211 Account # 10651

Project Name: Baltimore Inner Harbor, MD

Collected: 05/23/2013 09:10 by AP Honeywell International, Inc.

101 Columbia Road

MEY-3

Reported: 06/05/2013 08:17 Morristown NJ 07962

EF121 SDG#: BHB09-14EB*

Submitted: 05/23/2013 15:10

As Received As Received Method Limit of CAT As Received Dilution Analysis Name CAS Number Detection Limit* Quantitation No. Result Factor SW-846 6010B ug/l ug/l ug/l Metals 07051 Chromium 7440-47-3 1.1 10.0

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07051	Chromium	SW-846 6010B	1	131441848006	05/27/2013	21:21	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131441848006	05/27/2013	09:22	James L Mertz	1



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Page 1 of 1

Quality Control Summary

Client Name: Honeywell International, Inc. Group Number: 1392211

Reported: 06/05/13 at 08:17 AM

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank MDL**	Blank <u>LOQ</u>	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 131441848006 Chromium	Sample nu N.D.	mber(s): 1.1	7068414-70 10.0	68423 ug/l	103		90-110		
Batch number: 131441848007 Chromium	Sample nu N.D.	mber(s): 1.1	7068410-70 10.0	68413 ug/l	102		90-110		
Batch number: 13154117101A Total Cyanide (water)	Sample nu N.D.	mber(s): 5.0	7068410,70 10	68412,70684 ug/l	14,70684 93	16,7068	418,7068420 90-110	70684	121

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name			MS/MSD <u>Limits</u>	<u>RPD</u>	RPD <u>MAX</u>	BKG Conc	DUP Conc	DUP RPD	Dup RPD <u>Max</u>
Batch number: 131441848006 Chromium	_	mber(s):	: 7068414- 81-120	706842	3 UNSPI 20	K: 7068416 E 6.9 J	3KG: 7068416 7.6 J	10 (1)	20
Batch number: 131441848007 Chromium	_		: 7068410- 81-120	706841	3 UNSPI 20	K: 7068413 E N.D.	N.D.	0 (1)	20
Batch number: 13154117101A	Sample num			706841	2,70684	114,7068416,	7068418,706	8420-706842	1 UNSPK:
Total Cyanide (water)	78		43-137			N.D.	N.D.	0 (1)	20

^{*-} Outside of specification

^{**-}This limit was used in the evaluation of the final result for the blank

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

- < less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- greater than
- J estimated value The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis

Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Inorganic Qualifiers

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

Α	TIC is a possible aldol-condensation product	В	Value is <crdl, but="" th="" ≥idl<=""></crdl,>
В	Analyte was also detected in the blank	E	Estimated due to interference
С	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
Ε	Concentration exceeds the calibration range of	S	Method of standard additions (MSA) used
	the instrument		for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
Р	Concentration difference between primary and	W	Post digestion spike out of control limits
	confirmation columns >25%	*	Duplicate analysis not within control limits
U	Compound was not detected	+	Correlation coefficient for MSA < 0.995
X,Y,Z	Defined in case narrative		

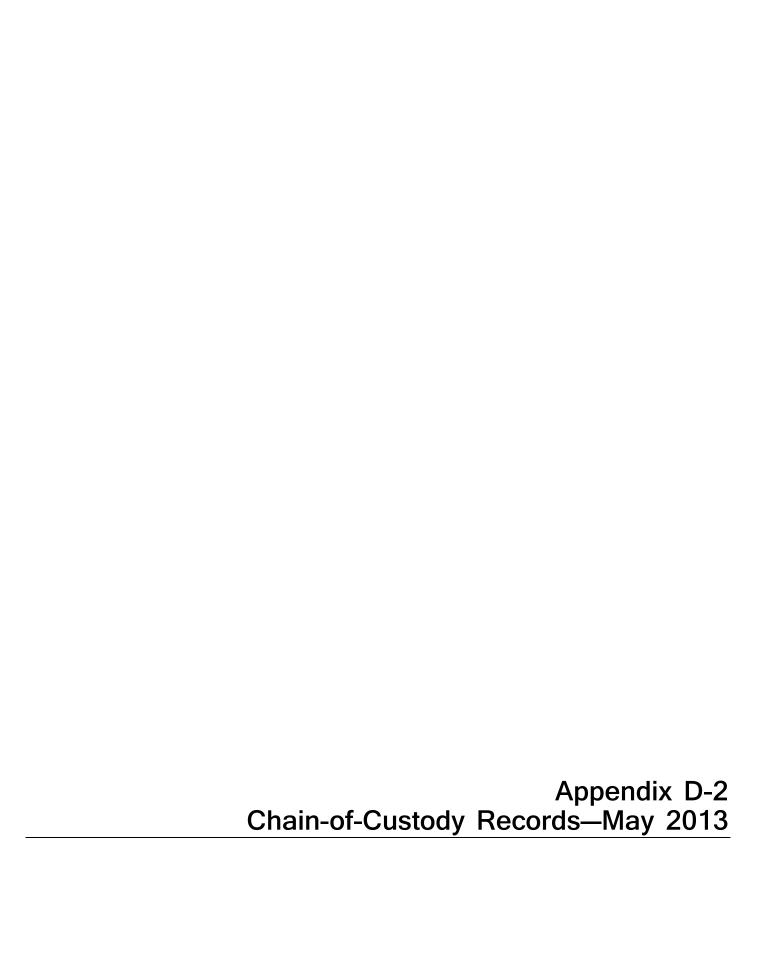
Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

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

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

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES 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 LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES 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. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



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1	X W/2			/	1 7 9		0 (none); 1 (4 (pH<2), 4Deg	Deg C); 2 (I	HCI pH<2); 3	(HNO3	pH<2);	A (H2S)	Ω nH₂	-2\· 5 (N	Ja∩H	pH>12);	6 (NaOl	I, Zn A	cetate);	7 (H2:	SO4 (p	H<2), 4	4 Deg C	C)); 8 ((HCI pH<2); 9 (HCI 4 D	eg C); 10 (HNO3
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Page 19 of 20

Appendix D-3 Field Report—May 2013

BALTIMORE INNER HARBOR DRAINAGE LAYER MONITORING

May 23, 2013





METER CALIBRATION LOG

Signed Date Signed Date

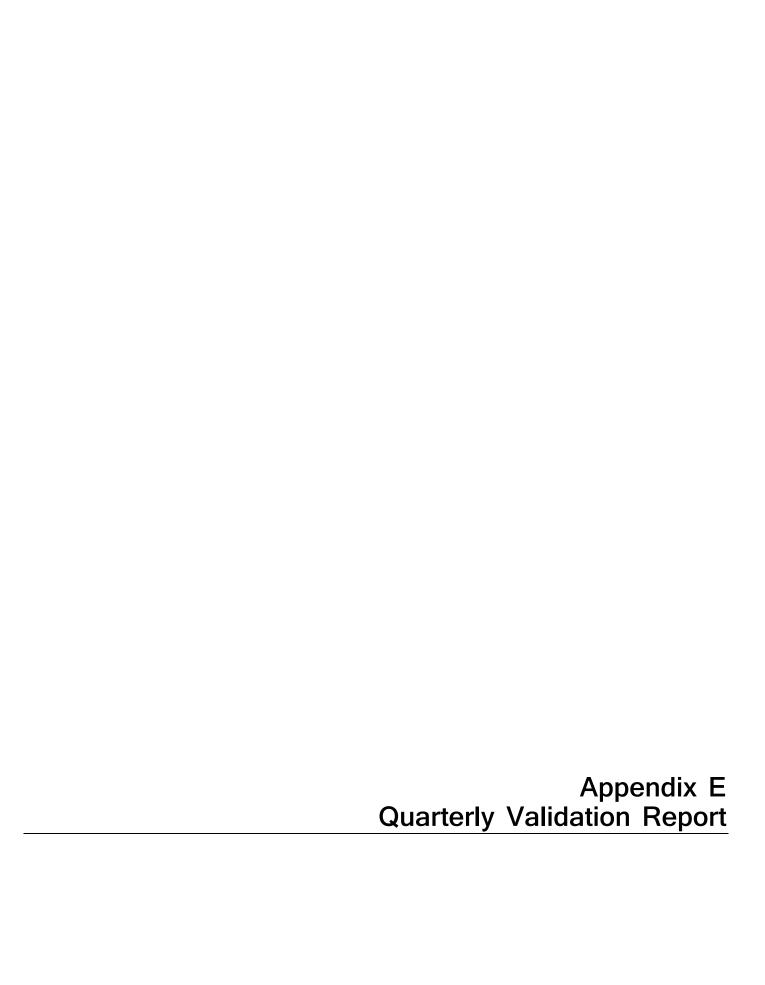
FIELD NOTES

214 Dogwood a Layer Samoh	$\frac{5}{23}(13)$
BIH DRainage Layer Samphi Amanda Penalish, Rachel Griner	V
Himomat Tenance, 10000	
SSMPI	
SSWIF	
C 01. + 2090E DIE-1 52313	
Sample #: 30905_DLF_1_52313 30905_DL_1_52313	
sample collection time: (955	
beginning depth to water: 1.20	
ending depth to writer: 50	G : 1 Blowk
depth to bottom: 4.60'	Equipment Blank
74: 6.98 mits	
DO: 5.14 mg/L	Sumple # : 30205_ EBF_1_52313
Sp. cond: 0.75 mS/cm	30905_EB_1-52313
Turbidity: 4.5 NTU	Sample Collection time: 0910
00P: 1/16 MV	PH: 7.52 units
temperature: 21.19°C	Do: 9.98 mg/2
	Sp. cond: 0.014 ms/cm
	turb: 0.0 NTV
	ORP: 48 MV
	temperature: 23.56°C
SSMP 2	
Sample #: 30905_DLF_2-52313	
30905_DL-2-52313	
sample collection time: 0935	
beginning donth to water: 1.50	
ending depth to water: 250	
deptn to bottom: 4.90'	
2#: 6.90 vn.te	
Do: 3.86 mg/L	
Sp. Cond: 1.20 nS/cm	
turbidity: 1.9 NO	
ORP: 78 mV	
temperature: 21.65°C	

CHAIN of CUSTODY

おりてき 日本の日本				AESI Ref:	41417.36322
Honeywell		Chain Of Custody / Analysis Request	est		30905-042413- 01
Privileged & Confidential	z	Site Name: Baltimore	Phase:	Lab Proj # (SDG):	
Maryland Environmental Service EDD To: Locus F	Locus Focus EIM	Location of Site: BALTIMORE, MD	MD Sampling Program	Lab ID	Е
Sampler: Amanda Peñafiel, Rachel Griner				Site ID	BALTIMORE
		Preservative 3 5		tab Job#	
lysis Tu	14			Authorized User:	Honeywell
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Sample Sample Sample Date Time Type	ple Sample Sample # of	Field Fi		Copyright AESI: Vetsion 5.0 Unauthorized use strictly prohibited	
		জ F ug/L		Sampling Method (code)	Lab Sample Numbers
30905_DLF_1_52313 5/23/2013 0755 W-SW	WATER REG 2	×			
5/23/2013	WATER REG 1	grab N X			
0955	WATER REG 2	~			
	WATER REG 1	grab N X			
0920	WATER REG 2	grab Y X X			
30905_DL_3_52313 5/23/2013 7720 W-SW	WATER REG 1	grab N X			
30905_DLF_4_52313 5/23/2013 2847 W-SW	WATER REG 2	grab Y X X			
30905_DL_4_52313	WATER REG 1	grab N X			
30905_DLDF_4_52313 5/23/2013 7845 W-SW	WATER FD 2	grab Y X X			
5/23/2013 5845	WATER FD 1	z ×			
5/23/2013 6900 BL	WATER FB 2	grab Y X X			
30905_EBF_1_52313	WATER EB 2	grab Y X X			
Company Received by	ed by	Company	42m Condition	Custody Seals Intact	
)ate/	1811	Date/Time 57	Cooler Temp.		
Company Rederved by Date/Time	ed by	Company Date/Time	Condition Cooler Temp.	Custody Seals Intact	
(o,(none)); 1 (4 Deg C); 2 (HCl pH<2); 3 (HNO3 pH	1<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 D	Deg C); 10 (HNO3
Company Company Company	18 1 18 1 E	1 by 1 by 1 by 1 by 1 by 1 by 1 by 1 by	Date/Time 5 Date/Time 5 Date/Time 5 Date/Time 5 Date/Time 5 Date/Time 5 Date/Time 1 (4 Deg C); 2 (HCl pH-2); 3 (HNO3 pH-2); 4 (H2SO4 pH-2); 5 (NaOH pH-2); 2 (4C H2SO4 (pH-2) & Ascorbic Acid); 12 (4C H2SO4 (pH-2) &	Company C4744 Condition Date/Time C4744 Hub Cooler Temp. Date/Time C4744 Hub Cooler Temp. Company Condition Company Condition Condition Cooler Temp. Date/Time Cooler Temp. 1 (4 Dag 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); 11 (40 NaOH (pH>12) & Nascorbic Acid); 12 (40 H2SO4 (pH<2) & NascS2O3); 13 (Zn Acetate); sp (special	Company CLIZM Condition Date/Time 523/12 -46 Cooler Temp. Company Company Condition Company Condition Condition Condition Date/Time Company Cooler Temp. Date/Time Company Cooler Temp. Date/Time Company Cooler Temp. 100 (H2SO4 pH-2); 5 (NaOH pH-12); 6 (NaOH, Zn Acetate); 7 (H2SO4 pH-2), 4 (H2SO4 (pH-2), 4 Na2S2O3); 13 (Zn Acetate); 59 (special instruction)

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(717) 656-2300		Privileged & Confidential	nfidential	Z			Site Name:	me:	Ba	Baltimore			₽	Phase:	T				Lab Proj # (SDG):	
Sampling Co.: Maryland Environmental Service		EDD To:	Locus	Locus Focus EIM			Location of		Site: BA	BALTIMORE, MD	RE, MD		PS	Sampling Program	Ť			ᡖ	Lab ID	Ε
Client Contact: (name, co., address)		Sampler: Ar	Amanda Peñafiel, Rachel Griner	, Rachel Grine					\dashv	┪	_		4	۲	1			S	Site ID	BALTIMORE
Christopher French			4500013806				Preservative	+	J.	5	1	1	4	+	†		1	+	lah loh #	
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oh Friends	23/1 ^{Sate/Tim}		2	12				Date	te/Time		5(1), 6(1,6(2))	W.Y	Cooler Temp	emp.						
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	Date							Date	Date/Time	l			Cooler Temp.	emp.						
Preservatives: (Other; Specify):			0 (none (pH<2),	»); 1 (4 Deg C); ; 4Deg C); 11 (4	2 (HCI pH<2); 3 C NaOH (pH>1;	(HNO3 pl 2) & Asco	1<2); 4 (rbic Acid	H2SO4); 12 (40	pH<2); 5	5 (NaOH 4 (pH<2)	pH>12); 6 (I & Na2S2O3	\aOH, Z); 13 (Zr	n Acetate Acetate	e); 7 (H2); sp (sp	SO4 (p	H<2), 4 struction	Deg C) 18)); 8 (HC	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)	eg C); 10 (HNO3





QUALITY CONTROL SUMMARY

This section is a summary of the quality control (QC) review results for samples collected on March 8, April 17, and May 23, 2013, for the Honeywell, Baltimore Inner Harbor project. 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 2002) as applicable to the specification contained in SW-846 methodologies, and the project specific requirements set forth in the Work Plan. Five sample delivery groups (SDG's) were associated with this data set: BHB01, BHB02, BHB03, BHB04, and BHB09. All field samples and associated QC samples were analyzed for total and/or dissolved chromium by SW-846 6010B. Samples were filtered in the field for dissolved metals analysis. Samples in BHB04 and BHB09 were also analyzed for cyanide by SW-846 9012A.

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 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

Seven chromium and two cyanide field duplicate samples were collected during this sampling event and analyzed. All acceptance criteria for precision were met.

LABORATORY REPLICATES

Two cyanide and seven chromium laboratory replicates were analyzed during this sampling round. All acceptance criteria for precision were met.

LABORATORY BLANKS

Chromium and cyanide were not detected in the calibration or laboratory method blanks.

FIELD BLANKS

Four chromium and two cyanide equipment rinsate blank samples and three chromium and two cyanide field blank samples were collected during these sampling events. Neither chromium nor cyanide were not detected in the field blank samples.

MATRIX SPIKE/MATRIX SPIKE DUPLICATES

One MS/MSD set was analyzed during this sampling event. All acceptance criteria for precision were met, with the following exception:

Cyanide was recovered below acceptance criteria in the matrix spike associated with sample 30905-GW-OP2-041713. The parent sample result was qualified as an estimated non-detect, "UJ".

SAMPLE RECEIPT, HOLDING TIMES AND PRESERVATION

The samples were received at the recommended temperature of 4 ± 2 °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.

Table 1 - Data Qualification Summary

Field Sample ID	Method	Analyte	Result	Units	Final Flag	Reason
30905-GW-OP2-041713	SW9012	Total Cyanide	5	ug/l	UJ	MSL

Notes:

MSL = The compound was recovered below criteria in the matrix spike sample.

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	BHB01							
alibr	ation Verif	ication						
				Raw		Reported		
ICV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	its
	Cr	1720	600	612.42	102.070	102.1	90	110
					Raw	Reported		
ICB	Element	ID(time)	RL 15	IDL 0.61	0.08	O.61	Lab Flag	Units
	Cr	1724	15	0.61	0.08	0.61	U	ug/l
		İ						
				Raw		Reported		
CCV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	
	Cr	1741	500	502.11	100.422	100.4	90	110
		i						
					Raw	Reported		
CCB	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cr	1745	15	0.61	-0.08	0.61	U	ug/l
		l			Raw	Reported		
PBW	Element	ID(time)	RL	MDL	Conc.	Conc.	Lab Flag	Units
	Cr	1749	15	1.1	0.05	1.1	U	μg/l
				_				
ccv	Element	ID(time)	True	Raw Found	% Rec.	Reported % Rec.	Lim	ite
CCV	Cr	1832	500	499.68	99.936	99.9	90	110
					Raw	Reported		
CCB	Element Cr	ID(time) 1836	RL 15	IDL 0.61	Conc.	Conc. 0.61	Lab Flag	Units ug/l
	GI	1030	15	0.01	U	0.01	U	ugn
		1						
				Raw		Reported		
CCV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	
	Cr	1937	500	492.94	98.588	98.6	90	110
					Raw	Reported		
ССВ	Element	ID(time)	RL	IDL	Raw Conc.	Reported Conc.	Lab Flag	Units
ССВ	Element Cr	ID(time) 1941	RL 15	IDL 0.61			Lab Flag	Units ug/l
ССВ					Conc.	Conc.		
ССВ				0.61	Conc.	0.61		
CCB					Conc.	Conc.		ug/l
	Cr	1941	15	0.61 Raw	0.1	Conc. 0.61	U	ug/l
	Cr	1941 ID(time)	15	0.61 Raw Found	Conc. 0.1 % Rec.	Conc. 0.61 Reported % Rec.	U	ug/l its
	Cr	1941 ID(time)	15	0.61 Raw Found	0.1 % Rec. 99.866	Conc. 0.61 Reported % Rec. 99.9	U	ug/l its
ccv	Cr Element Cr	1941 ID(time) 2012	15 True 500	0.61 Raw Found 499.33	0.1 % Rec. 99.866	Conc. 0.61 Reported % Rec. 99.9	Lim 90	ug/l its 110
	Cr	1941 ID(time)	15	0.61 Raw Found	% Rec. 99.866	Conc. 0.61 Reported % Rec. 99.9 Reported Conc.	U	ug/l its 110 Units
ccv	Element Cr	ID(time) 2012 ID(time)	True 500	Raw Found 499.33	0.1 % Rec. 99.866	Conc. 0.61 Reported % Rec. 99.9	Lim 90 Lab Flag	ug/l its 110
ccv	Element Cr	ID(time) 2012 ID(time)	True 500	Raw Found 499.33	% Rec. 99.866	Conc. 0.61 Reported % Rec. 99.9 Reported Conc.	Lim 90 Lab Flag	ug/l its 110 Units
ccv	Element Cr	ID(time) 2012 ID(time)	True 500	0.61 Raw Found 499.33 IDL 0.61	% Rec. 99.866	Reported % Rec. 99.9 Reported Conc. 0.61	Lim 90 Lab Flag	ug/l its 110 Units
CCV	Element Cr Element Cr	ID(time) 2012 ID(time) 2025	15 True 500 RL 15	0.61 Raw Found 499.33 IDL 0.61	% Rec. 99.866 Raw Conc. 0.13	Conc. 0.61 Reported % Rec. 99.9 Reported Conc. 0.61	Lim 90 Lab Flag U	ug/l its 110 Units ug/l
ccv	Element Cr Element Cr	ID(time) 2012 ID(time) 2025 ID(time)	15 True 500 RL 15	Raw Found 499.33 IDL 0.61	% Rec. 99.866 Raw Conc. 0.13	Conc. 0.61 Reported % Rec. 99.9 Reported Conc. 0.61	Lim 90 Lab Flag U	ug/l its 110 Units ug/l
CCV	Element Cr Element Cr	ID(time) 2012 ID(time) 2025	15 True 500 RL 15	0.61 Raw Found 499.33 IDL 0.61	% Rec. 99.866 Raw Conc. 0.13	Conc. 0.61 Reported % Rec. 99.9 Reported Conc. 0.61	Lim 90 Lab Flag U	ug/l its 110 Units ug/l
CCV	Element Cr Element Cr	ID(time) 2012 ID(time) 2025 ID(time)	15 True 500 RL 15	Raw Found 499.33 IDL 0.61	% Rec. 99.866 Raw Conc. 0.13	Conc. 0.61 Reported % Rec. 99.9 Reported Conc. 0.61	Lim 90 Lab Flag U	ug/l its 110 Units ug/l
CCV	Element Cr Element Cr	ID(time) 2012 ID(time) 2025 ID(time)	15 True 500 RL 15	Raw Found 499.33 IDL 0.61	Conc. 0.1 % Rec. 99.866 Raw Conc. 0.13	Conc. 0.61 Reported % Rec. 99.9 Reported Conc. 0.61 Reported % Rec. 100.1	Lim 90 Lab Flag U	ug/l its 110 Units ug/l

(ICV) Initial Calibration Verification
(ICSI) Initial Calibration Blank
(CCBI) Continuing Calibration Blank
(PCW) Preparation Blank
(CCV) Continuing Calibration Verification
(IDL) Instrument Detection Limit
(MDL) Method Detection Limit
(RL) Reporting Limit
(NA) Not Applicable

SDG	BHB01							
		1						
cov	Flow	ID(4'	Terro	Raw Found	0/ 5	Reported % Rec.		-14-0
ccv	Element Cr	ID(time) 0027	True 500	496.72	% Rec. 99.344	% Rec. 99.3	Lim 90	110 110
		1			Raw	Reported		
ССВ	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cr	0031	15	0.61	0.08	0.61	U	ug/l
		1						
PBW	Element	ID(time)	RL	MDL	Raw Conc.	Reported Conc.	Lab Flag	Units
	Cr	0035	15	1.1	0.01	1.1	U	μg/l
				Raw		Reported		
CCV	Element Cr	1D(time) 0116	True 500	Found 494.18	% Rec. 98.836	% Rec. 98.8	Lim 90	110
	Ci	0116	500	494.10	90.030	90.0	90	110
					D			
ССВ	Element	ID(time)	RL	IDL	Raw Conc.	Reported Conc.	Lab Flag	Units
	Cr	0120	15	0.61	0.12	0.61	U	ug/l
		1						
ccv	Element	ID(time)	True	Raw Found	% Rec.	Reported % Rec.	Lim	nite
	Cr	0203	500	491.75	98.350	98.4	90	110
		1			Raw	Reported		
CCB	Element Cr	ID(time) 0207	RL 15	IDL 0.61	Conc.	Onc. 0.61	Lab Flag	Units
	Cr	0207	15	0.61	-0.3	0.61	U	ug/l
		1		Raw		Reported		
CCV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	
	Cr	0247	500	504.2	100.840	100.8	90	110
		I						
ССВ	Element	ID(time)	RL	IDL	Raw Conc.	Reported Conc.	Lab Flag	Units
CCB	Cr	0251	15	0.61	-0.14	0.61	U	ug/l
Interfe	rence Che	ck Sample	s (ICS)					
		1	Raw		Reported			
Initial	Element	True	Found	% Rec.	% Rec.	Lin		
	Cr	500	476.6	95.320	95.3	80	120	
		1						
F!1	F1		Raw Found	% Rec.	Reported % Rec.		-14-	
Final	Element Cr	True 500	478.8	% Rec. 95.760	% Rec. 95.8	Lin 80	120	
		ı						
		1	Raw		Reported			
Initial	Element	True 500	Found 477.1	% Rec. 95.420	% Rec. 95.4	Lin 80	nits 120	
		000		50120	00.4	00		
		1	Raw		Reported			
Final	Element	True	Found	% Rec.	% Rec.		nits	
	Cr	500	485.3	97.060	97.1	80	120	

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SDG BHB01

Matrix Spikes/Matrix Spike Duplicates (MS/MSD) Client Sample ID: 6977981BKG

Element	Sample Result	Raw MS Result	Raw MSD Result	MS Spike Amount	MSD Spike Amount	MS % Rec.	MSD % Rec.	Reported MS % Rec.	Reported MSD % Rec.		Rec.	RPD	Reported RPD	RPD Limits
Cr	1.1	207.46	202	200	200	103.180	100.450	103	101	81	120	2.667	3	20
Client Sam	ple ID:	6977994BI	KG											
Client Sam	ple ID:	6977994BI	KG Raw	MS	MSD			Reported	Reported					
Client Sam	ple ID:			MS Spike	MSD Spike	MS	MSD	Reported MS	Reported MSD	%	Rec.		Reported	RPD
Client Sam		Raw	Raw			MS % Rec.	MSD % Rec.				Rec.	RPD	Reported RPD	RPD Limit

Duplicates (Dup)

Client Sample ID: 6977981BKG

	Raw	Raw				
	Sample	Dup		Reported	RPD	
Element	Result	Result	RPD	RPD	Limits	
Cr	1.1	0	N/A	0	20	_

 $\textbf{Comment:} \ \ \text{RPD is not applicable (N/A), sample concentrations less than five times the PQL of 5 \ \mu\text{g/l}.$

Client Sample ID: 6977994BKG

	Raw	Raw				
	Sample	Dup		Reported	RPD	
Element	Result	Result	RPD	RPD	Limits	
Cr	0	0	N/A	0	20	

 $\textbf{Comment:} \ \ \mathsf{RPD} \ \mathsf{is} \ \mathsf{not} \ \mathsf{applicable} \ (\mathsf{N/A}), \mathsf{sample} \ \mathsf{concentrations} \ \mathsf{less} \ \mathsf{than} \ \mathsf{five} \ \mathsf{times} \ \mathsf{the} \ \mathsf{PQL} \ \mathsf{of} \ \mathsf{5} \ \mathsf{\mu} \mathsf{g/l}.$

Laboratory Control Samples

		Raw		Reported		
Element	True	Found	% Rec.	% Rec.	Lir	nits
Cr	200	205.1	102.550	103	80	120
	ĺ					
		Raw		Reported		
Element	True	Found	% Rec.	% Rec.	Lir	nits
Cr	200	204.53	102.265	102	80	120

Serial Dilutions
Client Sample ID: 6977981BKG

	Raw	Raw		B	
Element	Sample Result	Ser. Dil. Result	(%D)	Reported % Rec.	Limits (%D)
Cr	1.1	Λ	N/A	N/A	10

Comment: Serial dilution is not applicable (N/A), sample concentrations less than fifty times the MDL.

Client Sample ID: 6977994BKG

	Raw	Raw			
Element	Sample Result	Ser. Dil. Result	(%D)	Reported % Rec.	Limits (%D)
Cr	0	0	N/A	N/A	10

Comment: Serial dilution is not applicable (N/A), sample concentrations less than fifty times the MDL.

Level 4 Verification Spreadsheet for Metals (Page 4 of 19)

SDG	BHB02							
Calibra	ation Verifi	cation						
		I						
ICV	Element	ID(time)	True	Raw Found	% Rec.	Reported % Rec.	Lim	ito
ICV	Cr	1642	600	598.78	99.797	99.8	90	110
ICB	Element	ID(time)	RL	IDL	Raw Conc.	Reported Conc.	Lab Flag	Units
ЮВ	Cr	1646	15	1.2	-0.4	1.2	U	ug/l
				_				
ccv	Element	ID(time)	True	Raw Found	% Rec.	Reported % Rec.	Lim	ite
	Cr	1701	500	486.75	97.350	97.4	90	110
					Raw	Reported		
ССВ	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cr	1705	15	1.2	-0.22	1.2	U	ug/l
		l			Raw	Reported		
PBW	Element	ID(time)	RL	MDL	Conc.	Conc.	Lab Flag	Units
	Cr	1716	15	1.1	-0.44	1.1	U	μg/l
				Raw		Reported		
CCV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	
	Cr	1756	500	488.82	97.764	97.8	90	110
		l						
		ID#*			Raw	Reported		
ССВ	Element	1D(time) 1800	RL 15	1,2	-0.07	Conc.	Lab Flag	Units ug/l
	٥.	1000			0.01		Ü	ug.
				Raw		Reported		
CCV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	its
	Cr	1844	500	497.66	99.532	99.5	90	110
		ı						
					Raw	Reported		
CCB	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cr	1847	15	1.2	-0.62	1.2	U	ug/l
		l						
ICV	Element	ID(time)	True	Raw Found	% Rec.	Reported % Rec.	Lim	ito
ICV	Cr	2159	600	583.73	97.288	97.3	90	110
ICB	Element	ID(time)	RL	IDL	Raw Conc.	Reported Conc.	Lab Flag	Units
100	Cr	2203	15	1.2	-0.2	1.2	U	ug/l
				_				
ccv	Element	ID(time)	True	Raw Found	% Rec.	Reported % Rec.	Lim	ite
- 001	Cr	2219	500	487.34	97.468	97.5	90	110
		l			Raw	Reported		
ССВ	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cr	2223	15	1.2	0.12	1.2	U	ug/l
		ı						
		l			Raw	Reported		
PBW	Element	ID(time)	RL	MDL	Conc.	Conc.	Lab Flag	Units
	Cr	2227	15	1.1	0.23	1.1	U	μg/l

(ICV) Initial Calibration Verification
(ICB) Initial Calibration Blank
(ICB) Continuing Calibration Blank
(ICB) Continuing Calibration Blank
(ICCV) Continuing Calibration Verification
(IDL) Instrument Detection Limit
(IMDL) Method Detection Limit
(IML) Reporting Limit
(IVA) Not Applicable

Level 4 Verification Spreadsheet for Metals (Page 5 of 19)

Cr 0002 15 1.2 -0.48 1.2 U ugfl CCV Element ID(time) True Found Found % Rec. % Rec. Limits CC O022 500 490.09 98.018 98 90 110 CCB Element ID(time) RL IDL Conc. Conc. Lab Flag Units Cr 0026 15 1.2 -0.11 1.2 U ugfl sterference Check Samples (ICS) initial Element True Found % Rec. % Rec. Limits Cr 500 472.6 94.520 94.5 80 120 inial Element True Found % Rec. % Rec. Limits Cr 500 476.6 95.320 95.3 80 120 Raw Reported Limits Limits Limits Cr 500 481.5 96.300		BHB02												
CCV Element ID(time) True Found More														
CCB Element ID(time) RL IDL Conc. Conc. Lab Flag Units														
CCB Element ID(time) RL IDL Conc. Conc. Lab Flag Units	CCV									-				
CCV Element ID(time) True Found Fo		Cr	2309	500	504.91	100.982	101	90	110					
CCV Element ID(time) True Found Fo			1											
CCV Element ID(time) True Found W. Rec. Limits Section Cor														
CCV Element ID(time) True Found % Rec. % Rec. Limits	CCB									-				
CCV Element ID(time) True Found %, Rec. %, Rec. Limits		O.	2010	13	1.2	0.44	1.2	U	ug/i					
CCV Element ID(time) True Found %, Rec. %, Rec. Limits														
CCB Element ID(time) RL IDL Conc. Conc. Lab Flag Units	CCV	Element	ID(time)	True		9/ Boo		Lim	ito					
CCV Element ID(time) RL IDL Conc. Conc. Lab Flag Units Ug/l Ug/l	CCV									•				
CCV Element ID(time) RL IDL Conc. Conc. Lab Flag Units Ug/l Ug/l														
CCV Element ID(time) RL IDL Conc. Conc. Lab Flag Units Ug/l Ug/l						Pow.	Donortod							
CCV Element ID(time) True Found Fo	ССВ	Element	ID(time)	RL	IDL			Lab Flag	Units					
CCV Element IQ(time) True Found %, Rec. %, Rec. Limits										-				
CCV Element IQ(time) True Found %, Rec. %, Rec. Limits														
CCV Element IQ(time) True Found %, Rec. %, Rec. Limits					Raw		Reported							
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Cr 0026 15 1.2 -0.11 1.2 U ug/l														
Raw	CCB									-				
		ur	0026	15	1.2	-0.11	1.2	U	ug/i					
Intal Element True Found % Rec. % Rec. Limits	nterfe	erence Che	ck Sample	s (ICS)										
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Raw	nitial			Found		% Rec.	Lin							
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itial Element True Found % Rec. % Rec. Limits Cr 500 481.5 96.30 96.3 80 120 inal Element True Found % Rec. % Rec. Limits	-inal			Found		% Rec.	Lin							
Cr 500 481.5 96.300 96.3 80 120 Raw	Final			476.6		% Rec. 95.3	Lin 80							
inal Element True Found % Rec. % Rec. Limits		Cr	500	Found 476.6	95.320	% Rec. 95.3	Lin 80	120						
inal Element True Found % Rec. % Rec. Limits		Cr	500	Found 476.6 Raw Found	95.320 % Rec.	% Rec. 95.3 Reported % Rec.	Lin 80 Lin	120						
inal Element True Found % Rec. % Rec. Limits		Cr	500	Found 476.6 Raw Found	95.320 % Rec.	% Rec. 95.3 Reported % Rec.	Lin 80 Lin	120						
Cr 500 478.3 95.660 95.7 80 120		Cr	500	Raw Found 481.5	95.320 % Rec.	% Rec. 95.3 Reported % Rec. 96.3	Lin 80 Lin 80	120						
	nitial	Element Cr Element	True 500	Raw Found 481.5	95.320 % Rec. 96.300 % Rec.	% Rec. 95.3 Reported % Rec. 96.3 Reported % Rec.	Lin 80 Lin 80	120 nits 120 nits						
	Final		1		True Found 500 476.6	True Found % Rec. 500 476.6 95.320	True Found % Rec. % Rec. 500 476.6 95.320 95.3	True Found % Rec. % Rec. Lin 500 476.6 95.320 95.3 80	True Found % Rec. % Rec. Limits 500 476.6 95.320 95.3 80 120	True Found % Rec. % Rec. Limits 500 476.6 95.320 95.3 80 120	True Found % Rec. % Rec. Limits 500 476.6 95.320 95.3 80 120	True Found % Rec. % Rec. Limits 500 476.6 95.320 95.3 80 120	True Found % Rec. % Rec. Limits 500 476.6 95.320 95.3 80 120	True Found % Rec. % Rec. Limits 500 476.6 95.320 95.3 80 120
	nitial Final	Element Cr Element Cr Cr Spikes/Max	True 500 True 500 True 500	Raw Found 481.5 Raw Found 478.3	% Rec. 96.300 % Rec. 95.660	% Rec. 95.3 Reported % Rec. 96.3 Reported % Rec. 95.7	Lin 80 Lin 80	120 nits 120 nits						
Client Sample ID: 6978003BKG	nitial Final	Element Cr Element Cr Cr Spikes/Max	True 500 True 500 True 500	Raw Found 481.5 Raw Found 478.3	% Rec. 96.300 % Rec. 95.660	% Rec. 95.3 Reported % Rec. 96.3 Reported % Rec. 95.7	Lin 80 Lin 80	120 nits 120 nits						
	initial Final	Element Cr Element Cr Cr Spikes/Max	True 500 True 500 True 500	Raw Found 481.5 Raw Found 478.3	95.320 % Rec. 96.300 % Rec. 95.660	% Rec. 95.3 Reported % Rec. 96.3 Reported % Rec. 95.7	Lin 80 Lin 80	120 nits 120 nits		Reported	Reported			
Raw Raw MS MSD Reported Reported Sample MS MSD Spike MS MSD MS MSD % Rec. Repor	nitial Final	Element Cr Element Cr Cr Spikes/Max	True 500 True 500 True 1	Raw Found 481.5 Raw Found 478.3 Duplicate 6978003B Raw MS	% Rec. 96.300 % Rec. 95.660 % Rec. MS/MS	% Rec. 95.3 Reported % Rec. 96.3 Reported % Rec. 95.7	Lin 80 Lin 80 MSD Spike	120 nits 120 nits 120 MS		MS	MSD			Reported
Raw Raw MS MSD Reported Reported Sample MS MSD Spike Spike MS MSD MS MSD %Rec. Repor Element Result Result Amount Amount %Rec. %Rec. %Rec. Limits RPD RPC	nitial Sinal	Element Cr Element Cr Cr Cr Element Cr Element Cr Element	True 500 True 500 True 500 Sample ID:	Raw Found 481.5 Raw Found 478.3 Duplicate 6978003B Raw MS Result	% Rec. 96.300 % Rec. 95.660 es (MS/MS	% Rec. 95.3 Reported % Rec. 96.3 Reported % Rec. 95.7	Lin 80 Lin 80 MSD Spike Amount	120 nits 120 nits 120 MS % Rec.	% Rec.	MS % Rec.	MSD % Rec.	Limits		RPD
Raw Raw MS MSD Reported Reported Sample MS MSD Spike MS MSD MS MSD % Rec. Repor	nitial Final	Element Cr Element Cr Cr Cr Element Cr Element Cr Element	True 500 True 500 True 500 Sample ID:	Raw Found 481.5 Raw Found 478.3 Duplicate 6978003B Raw MS Result	% Rec. 96.300 % Rec. 95.660 es (MS/MS	% Rec. 95.3 Reported % Rec. 96.3 Reported % Rec. 95.7	Lin 80 Lin 80 MSD Spike Amount	120 nits 120 nits 120 MS % Rec.	% Rec.	MS % Rec.	MSD % Rec.	Limits		RPD
Raw Raw MS MSD Reported Reported Sample MS MSD Spike Spike MS MSD MS MSD %Rec. Repor Element Result Result Amount Amount %Rec. %Rec. %Rec. Limits RPD RPC	initial Final	Element Cr Element Cr Spikes/Ma Client San Element Cr	True 500 True 500 True 500 Sample ID: Sample Result 0	Raw Found 481.5 Raw Found 481.5 Raw Found 478.3 Duplicate 6978003B Raw MS Result 192.29	95.320 % Rec. 96.300 % Rec. 95.660 es (MS/MS) KG Raw MSD Result 191.84	% Rec. 95.3 Reported % Rec. 96.3 Reported % Rec. 95.7	Lin 80 Lin 80 MSD Spike Amount	120 nits 120 nits 120 MS % Rec.	% Rec.	MS % Rec.	MSD % Rec.	Limits		RPD
Raw Raw MS MSD Reported Reported Reported Reported Result R	initial Final	Element Cr Element Cr Spikes/Ma Client San Element Cr	True 500 True 500 True 500 Sample ID: Sample Result 0	Raw Found 481.5 Raw Found 478.3 Duplicate 6978003B Raw MS Result 192.29	% Rec. 96.300 % Rec. 95.660 8 Raw MSD Result 191.84	% Rec. 95.3 Reported % Rec. 96.3 Reported % Rec. 95.7 SD) MS Spike Amount 200	Lin 80 Lin 80 Lin 80 MSD Spike Amount 200	120 nits 120 nits 120 MS % Rec.	% Rec.	MS % Rec. 96	MSD % Rec. 96	Limits		RPD
Raw Raw MS MSD Reported Reported Reported Reported Reported Reported Reported Reported Result Result Result Amount Amount Rec.	Initial Final	Element Cr Element Cr Spikes/Ma Client San Element Cr	True 500 True 500 True 500 ttrix Spike ID: Sample Result 0	Raw Found 481.5 Raw Found 481.5 Raw Found 478.3 Duplicate 6978003B Raw MS Result 192.29 6978016B Raw	% Rec. 96.300 % Rec. 95.660 % Ses (MS/MS) KG Raw MSD Result 191.84 KG Raw	% Rec. 95.3 Reported % Rec. 96.3 Reported % Rec. 95.7 SD) MS Spike Amount 200 MS	Lin 80 Lin 80 Lin 80 MSD Spike Amount 200	120 nits 120 120 MS % Rec. 96.145	% Rec. 95.920	MS % Rec. 96	MSD % Rec. 96	81 120		RPD 0
Raw Raw MS MSD Reported Reported Result Res	Initial Final	Element Cr Element Cr Spikes/Mac Client San Element Cr Client San	True 500 True 500 True 500 Sample ID: Sample ID: Sample ID: Sample ID: Sample ID:	Raw Found 481.5 Raw Found 481.5 Raw Found 478.3 Duplicate 6978003B Raw MS Result 192.29 6978016B Raw MS	% Rec. 96.300 % Rec. 95.660 % Ses (MS/MS/KG) Raw MSD Result 191.84 KG Raw MSD	% Rec. 95.3 Reported % Rec. 96.3 Reported % Rec. 95.7 SD) MS Spike Amount 200 MS Spike	Lin 80 Lin 80 MSD Spike Amount 200 MSD Spike Spike Amount 200	120 120 120 120 120 MS % Rec. 96.145	% Rec. 95.920	MS % Rec. 96	MSD % Rec. 96 Reported MSD	Limits 81 120 % Rec.	0.234	RPD

Level 4 Verification Spreadsheet for Metals (Page 6 of 19)

SDG BHB02

Duplicates (Dup)

Client Sample ID: 6978003BKG

 $\textbf{Comment:} \ \ \mathsf{RPD} \ \mathsf{is} \ \mathsf{not} \ \mathsf{applicable} \ (\mathsf{N/A}), \ \mathsf{sample} \ \mathsf{concentrations} \ \mathsf{less} \ \mathsf{than} \ \mathsf{five} \ \mathsf{times} \ \mathsf{the} \ \mathsf{PQL} \ \mathsf{of} \ \mathsf{5} \ \mathsf{\mug/l}.$

Client Sample ID: 6978016BKG

	Raw	Raw			
	Sample	Dup		Reported	RPD
Element	Result	Result	RPD	RPD	Limits
Cr	0	0	N/A	0	20

 $\textbf{Comment:} \ \ \mathsf{RPD} \ is \ \mathsf{not} \ \mathsf{applicable} \ (\mathsf{N/A}), \ \mathsf{sample} \ \mathsf{concentrations} \ \mathsf{less} \ \mathsf{than} \ \mathsf{five} \ \mathsf{times} \ \mathsf{the} \ \mathsf{PQL} \ \mathsf{of} \ \mathsf{5} \ \mathsf{\mu} \mathsf{g/l}.$

Laboratory Control Samples

Element	True	Raw Found	% Rec.	Reported % Rec.	Lir	mits
Cr	200	193.59	96.795	97	80	120
Element	True	Raw Found	% Rec.	Reported % Rec.	Lir	nits
Cr	200	193.88	96.940	97	80	120

Serial Dilutions					
Client Sam	ple ID:	6978003BH	(G		
	Raw Sample	Raw Ser. Dil.		Reported	Limits
Element	Result	Result	(%D)	% Rec.	(%D)
Cr	0	0	N/A	N/A	10

Comment: Serial dilution is not applicable (N/A), sample concentrations less than fifty times the MDL.

Client Sample ID: 6978016BKG

Element	Sample Result	Ser. Dil. Result	(%D)	Reported % Rec.	Limits (%D)	
Cr	0	0	N/A	N/A	10	

Comment: Serial dilution is not applicable (N/A), sample concentrations less than fifty times the MDL.

Level 4 Verification Spreadsheet for Metals (Page 7 of 19)

alibr	BHB03							
	ation Veri	fication						
				Raw		Reported		
ICV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	its
	Cr	0008	600	600.52	100.087	100.1	90	its 110
		1			Raw	D		
ICB	Element	ID(time)	RL	IDL	Conc.	Reported Conc.	Lab Flag	Units
	Cr	0012	15	1.2	0.03	1.2	U	ug/l
				Raw				
ccv	Element	ID(time)	True	Found	% Rec.	Reported % Rec.	Lim	its
	Cr	0027	500	496.72	99.344	99.3	90	110
		i						
					Raw	Reported		
ССВ	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cr	0031	15	1.2	0.08	1.2	U	ug/l
		1						
					Raw	Reported		
PBW	Element	ID(time)	RL	MDL	Conc.	Conc.	Lab Flag	Units
	Cr	0035	15	1.1	0.01	1.1	U	µg/l
				Raw		Reported		
ccv	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	
	Cr	0116	500	494.18	98.836	98.8	90	110
		1						
					Raw	Reported		
ССВ	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cr	0120	15	1.2	0.12	1.2	U	ug/l
		1						
				Raw		Reported		
CCV	Element	ID(time)	True 500	Found 491.75	% Rec. 98.350	% Rec. 98.4	Lim 90	its 110
	Cr	0203	500	491./5	98.350	98.4	90	110
		1						
					Raw	Reported		
ССВ	Element	ID(time)	RL 15	IDL 12	Conc.	Conc.	Lab Flag	Units ug/l
	Cr	0207	15	1.2	-0.3	1.2	U	ug/i
ccv	Element	ID(time)	True	Raw Found	% Rec.	Reported % Rec.	Lim	
CCV	Cr	0247	500	504.2	100.840	100.8	90	110
					Raw			
ССВ	Element	ID(time)	RL	IDL	Conc.	Reported Conc.	Lab Flag	Units
	Cr	0251	15	1.2	-0.14	1.2	U	ug/l
		1						
				Raw		Reported		
ICV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	its
	Cr	1642	600	598.78	99.797	99.8	90	110
					Raw	Reported		
ICB	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
ICB	Element Cr	ID(time) 1646	RL	IDL 1.2			Lab Flag	Units
ICB	Element Cr				Conc.	Conc.	Lab Flag U	
ICB	Element Cr			1.2	Conc.	1.2	U	ug/l
	Cr	1646	15	1.2 Raw	-0.4	Conc. 1.2 Reported	U	ug/l
	Element Cr Element Cr			1.2	Conc.	1.2	U	
	Cr	1646 ID(time)	15	1.2 Raw Found	Conc. -0.4	Conc. 1.2 Reported % Rec.	U	ug/l
	Cr	1646 ID(time)	15	1.2 Raw Found	% Rec. 97.350	Reported % Rec. 97.4	U	ug/l
ccv	Element Cr	1646 ID(time) 1701	True 500	Raw Found 486.75	% Rec. 97.350	Conc. 1.2 Reported % Rec.	Lim 90	ug/l
ccv	Cr	1646 ID(time)	15 True 500	Raw Found 486.75	% Rec. 97.350	Conc. 1.2 Reported % Rec. 97.4 Reported	U	ug/l its 110
ccv	Element Cr	1646 ID(time) 1701 ID(time)	True 500	Raw Found 486.75	% Rec. 97.350	Conc. 1.2 Reported % Rec. 97.4 Reported	U Lim 90 Lab Flag	its 110
ccv	Element Cr	1646 ID(time) 1701 ID(time)	True 500	Raw Found 486.75	% Rec. 97.350 Raw Conc0.22	Reported % Rec. 97.4 Reported Conc. 1.2	U Lim 90 Lab Flag	its 110
CCB	Element Cr Element Cr	ID(time) 1701 ID(time) 1705 ID(time)	15 True 500 RL 15	1.2 Raw Found 486.75 IDL 1.2	% Rec. 97.350 Raw Conc0.22 Raw Conc0.22	Reported % Rec. 97.4 Reported Conc. 1.2	Lim 90 Lab Flag U	its 110 Units ug/l
CCB	Element Cr	ID(time) 1701 ID(time) 1705	15 True 500 RL 15	1.2 Raw Found 486.75 IDL 1.2	% Rec. 97.350 Raw Conc0.22	Reported % Rec. 97.4 Reported Conc. 1.2	Lim 90 Lab Flag	its 110 Units ug/l
CCB	Element Cr Element Cr	ID(time) 1701 ID(time) 1705 ID(time)	15 True 500 RL 15	1.2 Raw Found 486.75 IDL 1.2	% Rec. 97.350 Raw Conc0.22 Raw Conc0.22	Reported % Rec. 97.4 Reported Conc. 1.2	Lim 90 Lab Flag U	its 110 Units ug/l
CCB	Element Cr Element Cr	ID(time) 1701 ID(time) 1705 ID(time) 1705	15 True 500 RL 15	1.2 Raw Found 486.75 IDL 1.2	% Rec. 97.350 Raw Conc0.22 Raw Conc0.22	Reported % Rec. 97.4 Reported Conc. 1.2 Reported Conc. 1.1 Reported Conc. 1.1	Lim 90 Lab Flag U	its 110 Units ug/l
CCB	Element Cr Element Cr Element Cr	ID(time) 1701 ID(time) 1705 ID(time) 1716 ID(time)	15 True 500 RL 15 True 15 True	Raw Found 486.75 IDL 1.2 MDL 1.1	% Rec. 97.350 Raw Conc0.22 Raw Conc0.44	Reported % Rec. 97.4 Reported Conc. 1.2 Reported Conc. 1.1 Reported Conc. 4.1	Lim 90 Lab Flag U Lab Flag	Units Units Units
CCB	Element Cr Element Cr Cr	ID(time) 1701 ID(time) 1705 ID(time) 1705	True 500 RL 15	1.2 Raw Found 486.75 IDL 1.2 MDL 1.1	% Rec. 97.350 Raw Conc0.22 Raw Conc0.44	Reported % Rec. 97.4 Reported Conc. 1.2 Reported Conc. 1.1 Reported Conc. 1.1	Lim 90 U Lab Flag U	ug/l its 110 Units ug/l Units
CCB	Element Cr Element Cr Element Cr	ID(time) 1701 ID(time) 1705 ID(time) 1716 ID(time)	15 True 500 RL 15 True 15 True	Raw Found 486.75 IDL 1.2 MDL 1.1	% Rec. 97.350 Raw Conc0.22 Raw Conc0.44	Reported % Rec. 97.4 Reported Conc. 1.2 Reported Conc. 1.1 Reported Conc. 4.1	Lim 90 Lab Flag U Lab Flag	Units Units Units
CCB	Element Cr Element Cr Element Cr	ID(time) 1701 ID(time) 1705 ID(time) 1716 ID(time)	15 True 500 RL 15 True 15 True	Raw Found 486.75 IDL 1.2 MDL 1.1	% Rec. 97.350 Raw Conc0.22 Raw Conc0.44	Conc. 1.2 Reported % Rec. 97.4 Reported Conc. 1.2 Reported Conc. 1.1 Reported % Rec. 97.8	Lim 90 Lab Flag U Lab Flag	Units Units Units
CCV CCB	Element Cr Element Cr Element Cr	ID(time) 1701 ID(time) 1705 ID(time) 1716 ID(time)	15 True 500 RL 15 True 15 True	Raw Found 486.75 IDL 1.2 MDL 1.1	% Rec. 97.764	Reported % Rec. 97.4 Reported Conc. 1.2 Reported Conc. 1.1 Reported Conc. 4.1	Lim 90 Lab Flag U Lab Flag	ug/l its 110 Units ug/l Units

(ICV). Imital Calibration Verification (ICB). Imital Calibration Blank (CCB). Continuing Calibration Blank (PBW) Prognation Blank (PBW) Prognation Blank (CCV) Continuing Calibration Verification (IDL). Instrument Detection Limit (IDL). Instrument Detection Limit (IDL). Instrument Detection Limit (IDL). Instrument Detection Limit (IDL). Instrument Detection Limit (IDL). Instrument Limit (IDL). Instrument Limit

SDG	BHB03							
		i.						
				Raw		Reported		
CCV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	
	Cr	1844	500	497.66	99.532	99.5	90	110
		1						
					Raw	Reported		
CCB	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cr	1847	15	1.2	-0.62	1.2	U	ug/l
			_	Raw		Reported		
ICV	Element	ID(time) 0407	True 600	Found 584.95	% Rec. 97.492	% Rec. 97.5	Lim 90	110
	0.	0407	000	504.55	57.452	57.0	50	
					Raw	Reported		
ICB	Element	ID(time) 0412	RL 15	1.2	-0.05	Conc.	Lab Flag	Units ug/l
	٥.	0412			0.00		U	ugi
		1						
			_	Raw		Reported		
CCV	Element	ID(time) 0428	True 500	Found 476.45	% Rec. 95.290	% Rec. 95.3	Lim 90	110
	Ci	0420	300	470.40	55.250	50.5	50	110
ССВ	Element	ID(time)	RL	IDL	Raw Conc.	Reported Conc.	Lab Flag	Units
CCB	Cr	0432	15	1.2	-0.61	1.2	Lab Flag	ug/l
								-9.
					_			
PRW	Element	ID(time)	RI.	MDL	Raw Conc.	Reported Conc.	Lab Flag	Units
	Cr	0436	15	1.1	-0.57	1.1	U	μg/l
				Raw		Reported		
CCV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	
	Cr	0519	500	492.87	98.574	98.6	90	110
		i .						
					Raw	Reported		
CCB		ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cr	0523	15	1.2	-0.3	1.2	U	ug/l
cov	Element	ID(time)	True	Raw Found	% Rec.	Reported % Rec.	Lim	
CCV	Cr	0610	500	484.21	96.842	96.8	90	110
					_			
CCB	Element	ID(time)	RL	IDL	Raw Conc.	Reported Conc.	Lab Flag	Units
	Cr	0614	15	1.2	-0.29	1.2	U	ug/l
		1						
				Raw		Reported		
CCV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	
	Cr	0700	500	482.46	96.492	96.5	90	110
		1						
		1			Raw	Reported		
ССВ	Element	ID(time) 0704	RL 15	IDL 12	Conc.	Conc.	Lab Flag	Units ug/l

% Rec. Limits

SDG BHB03

Duplicates (Dup)

Client Sample ID:
Raw

Raw

	Raw	Raw				
	Sample	Dup		Reported	RPD	
Element	Result	Result	RPD	RPD	Limits	
Cr			N/A		20	

Comment: RPD is not applicable (N/A), sample concentrations less than five times the PQL of 5 µg/l.

Client Sample ID: *78016BKG

Ele	ement	Sample Result	Dup Result	RPD	Reported RPD	RPD Limits	
Cr		0	0	N/A	0	20	

Comment: RPD is not applicable (N/A), sample concentrations less than five times the PQL of 5 µg/l.

Client Sample ID: 6978016BKG

	Raw	Raw				
	Sample	Dup		Reported	RPD	
Element	Result	Result	RPD	RPD	Limits	
Cr	0	0	N/A	0	20	Ξ

Comment: RPD is not applicable (N/A), sample concentrations less than five times the PQL of 5 µg/l.

<u>Laboratory Control Samples</u>

Element	True	Raw Found	% Rec.	Reported % Rec.	Lin	nits
Cr	200	204.53	102.265	102	80	120
Element	True	Raw Found	% Rec.	Reported % Rec.	Lir	nits
Element Cr	True 200		% Rec. 96.940		Lir 80	nits 120

Element	True	Raw Found	% Rec.	Reported % Rec.	Lin	nits
Cr	200	204.31	102.155	102	80	120

Serial Dilutions

Client Sam	ple ID:	*77994BKG				
	Raw	Raw				
	Sample	Ser. Dil.		Reported	Limits	
Element	Result	Result	(%D)	% Rec.	(%D)	
Cr	0	0	N/A	N/A	10	

Comment: Serial dilution is not applicable (N/A), sample concentrations less than fifty times the MDL.

Client Sample ID: *78016BKG

	Raw	Raw				
	Sample	Ser. Dil.		Reported	Limits	
Element	Result	Result	(%D)	% Rec.	(%D)	
Cr	0	0	N/A	N/A	10	

Comment: Serial dilution is not applicable (N/A), sample concentrations less than fifty times the MDL.

Client Sample ID: 6978016BKG

	Raw	Raw				
	Sample	Ser. Dil.		Reported	Limits	
Element	Result	Result	(%D)	% Rec.	(%D)	
Cr	0	0	N/A	N/A	10	Ī

Comment: Serial dilution is not applicable (N/A), sample concentrations less than fifty times the MDL.

Level 4 Verification Spreadsheet for Metals (Page 11 of 19)

SDG BHB04 - Chromium

		ificat	

Calibr	ation Verifi	cation						
		l						
				Raw		Reported		
ICV	Element	ID(time) 0733	True 600	Found 583.73	% Rec. 97.288	% Rec. 97.3	Lim 90	110
	O.	0/33	000	303.73	37.200	37.3	30	110
					Raw	Reported		
ICB	Element	ID(time) 0737	RL 15	1.6	Conc.	Conc.	Lab Flag	Units ug/l
	Ci	0/3/	15	1.0	-0.2	1.0	U	ugn
		men s	_	Raw Found		Reported		
CCV	Element	ID(time) 0752	True 500	494.35	% Rec. 98.870	% Rec. 98.9	Lim 90	110
	0.	0702	000	404.00	00.070	00.0	00	
ССВ	Element	ID(time)	RL	IDL	Raw Conc.	Reported Conc.	Lab Flag	Units
ССВ	Cr	0756	15	1.6	-0.51	1.6	U	ug/l
					_			
PBW	Element	ID(time)	RL.	MDL	Raw Conc.	Reported Conc.	Lab Flag	Units
	Cr	0800	15	1.1	-1.56	-1.56	B	µg/l
				Raw		Reported		
ccv	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	its
	Cr	0840	500	490.44	98.088	98.1	90	110
					Raw	Reported		
ССВ	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cr	0844	15	1.6	-1.94	-1.94	В	ug/l
		i						
				Raw		Reported		
CCV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	
	Cr	0927	500	492	98.400	98.4	90	110
		l						
					Raw	Reported		
CCB	Element	ID(time)	RL 15	IDL	Conc.	Conc.	Lab Flag	Units
	Cr	0931	15	1.6	-1.2	1.6	U	ug/l
		Ì						
				Raw		Reported		
CCV	Element	ID(time) 0946	True 500	Found 495.18	% Rec.	% Rec.	Lim 90	110
	Ci	0946	300	490.10	99.036	99	90	110
					Raw	Reported		
CCB	Element	1D(time) 0950	RL 15	1.6	-0.88	Conc.	Lab Flag	Units ug/l
	O.	0330	15	1.0	-0.00	1.0	U	ugri
				Raw		Donosto 4		
ICV	Element	ID(time)	True	Found	% Rec.	Reported % Rec.	Lim	its
	Cr	0530	600	591.99	98.665	98.7	90	110
					_			
ICB	Element	ID(time)	RL.	IDL	Raw Conc.	Reported Conc.	Lab Flag	Units
100	Cr	0535	15	1.6	0.55	1.6	U	ug/l
								-
				_		_		
ccv	Element	ID(time)	True	Raw Found	% Rec.	Reported % Rec.	Lim	ite
CCV	Cr	0556	500	491.06	98.212	98.2	90 90	110
						B		
ССВ	Element	ID(time)	RL	IDL	Raw Conc.	Reported Conc.	Lab Flag	Units
		.5()					ug	-11110

(ICV) Initial Calibration Verification
(ICB) Initial Calibration Blank
(ICCB) Continuing Calibration Blank
(ICCB) Continuing Calibration Blank
(ICCV) Continuing Calibration Verification
(ICCV) Continuing Calibration Verification
(IMCV) Method Detection Limit
(IMCV) Method Detection Limit
(ICV) Not Applicable

SDG	BHB04	- Chron	nium					
		1		Raw		Reported		
ccv	Element	ID(time)	True	Found	% Rec.	% Rec.	Lin	nits
	Cr	0653	500	499.59	99.918	99.9	90	110
		ı						
					Raw	Reported		
ССВ	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cr	0658	15	1.6	0.42	1.6	U	ug/l
		ı						
				Raw		Reported		
CCV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lin	nits
	Cr	0727	500	491.7	98.340	98.3	90	110

CCI	3 Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cr	0732	15	1.6	1.14	1.6	U	ug/l

Interference Check Samples (ICS)

		Raw		Reported		
Initial Element	True	Found	% Rec.	% Rec.	Lir	nits
Cr	500	487.1	97.420	97.4	80	120

			Raw		Reported		
Final	Element	True	Found	% Rec.	% Rec.	Lin	nits
	Cr	500	488.5	97.700	97.7	80	120

Initial	Element	True	Raw Found	% Rec.	Reported % Rec.	Lir	nits
	Cr	500	481.1	96.220	96.2	80	120

			Raw		Reported		
Final	Element	True	Found	% Rec.	% Rec.	Lir	nits
	0-	F00	470.0	05.000	05.7	00	400

Matrix Spikes/Matrix Spike Duplicates (MS/MSD) Client Sample ID: 7027670BKG

		Raw	Raw	MS	MSD			Reported	Reported					
	Sample	MS	MSD	Spike	Spike	MS	MSD	MS	MSD	% F	Rec.		Reported	RPD
Element	Result	Result	Result	Amount	Amount	% Rec.	% Rec.	% Rec.	% Rec.	Lim	nits	RPD	RPD	Limits
Cr	3949.43	4147.06	4124 47	200	200	98.815	87.520	99	88	81	120	0.546	1	20

Duplicates (Dup)

Client Sample ID: 7027670BKG
Raw

	Raw	Raw				
	Sample	Dup		Reported	RPD	
Element	Result	Result	RPD	RPD	Limits	
Cr	3949.43	3997.78	1.216779	1	20	-

Laboratory Control Samples

		Raw		Reported		
Element	True	Found	% Rec.	% Rec.	Lir	nits
Cr	200	207.29	103.645	104	80	120

	Raw	Raw			
	Sample	Ser. Dil.		Reported	Limits
Element	Result	Result	(%D)	% Rec.	(%D)
Cr	3949 43	3842 35	2 711277	3	10

Level 4 Verification Spreadsheet for Metals (Page 13 of 19)

SDG	BHB04	- Cyanid	e					
Calibr	ation Verifi	cation						
ICV	Element	ID(time)	True	Raw Found	% Rec.	Reported % Rec.	Lim	ite
	Cyanide	0731	0.15	0.14	93.333	93	90	110
	-,							
		ĺ			Raw	Reported		
ICB	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cyanide	0732	0.01	0.005	-0.0018	0.005	U	mg/L
					Raw	Reported		
PBW		ID(time)	RL	MDL	Conc.	Conc.	Lab Flag	Units
	Cyanide	0735	0.01	0.005	-0.001	0.005	U	mg/L
				Raw		Reported		
CCV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	
	Cyanide	0745	0.15	0.1513	100.867	101	90	110
					Raw	Reported		
CCB	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cyanide	0746	0.01	0.005	-0.0018	0.005	U	mg/L
				Raw		Reported		
CCV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	
	Cyanide	0900	0.15	0.1574	104.933	105	90	110
ССВ	Element	ID(time)	RL	IDL 0.005	Raw Conc.	Reported Conc.	Lab Flag	Units
	Cyanide	0902	0.01	0.005	-0.0018	0.005	U	mg/L
ccv	Element	ID(time)	True	Raw Found	% Rec.	Reported % Rec.	Lim	its
	Cyanide	0909	0.15	0.1463	97.533	98	90	110
ССВ	Element	ID(time)	RL	IDL	Raw Conc.	Reported Conc.	Lab Flag	Units
ССВ	Cyanide	0910	0.01	0.005	-0.0018	0.005	U	mg/L
ccv	Element	ID(time)	True	Raw Found	% Rec.	Reported % Rec.	Lim	
	Cyanide	0914	0.15	0.1536	102.400	102	90	110
ССВ	Element	ID(time)	RL	IDL	Raw Conc.	Reported Conc.	Lab Flag	Units
	Cyanide	0916	0.01	0.005	-0.0026	0.005	U	mg/L
ICV	Element	ID(time)	True	Raw Found	% Rec.	Reported % Rec.	Lim	
	Cyanide	1428	0.15	0.1485	99.000	99	90	110
ICB	Element	ID(time)	RL	IDL	Raw Conc.	Reported Conc.	Lab Flag	Units
	Cyanide	1429	0.01	0.005	-0.0018	0.005	U	mg/L

(ICV) Initial Calibration Verification
(ICSI) Initial Calibration Blank
(CCSI) Continuing Calibration Blank
(PBM) Proparation Blank
(CCV) Continuing Calibration Verification
(ICV) Continuing Calibration Verification
(ICV) Method Detection Limit
(MDL) Method Detection Limit
(RL) Reporting Limit
(IN/A) Not Applicable

Level 4 Verification Spreadsheet for Metals (Page 14 of 19)

SDG	BHB04	- Cyanid	е					
		1						
PBW	Flomont	ID(time)	RL	MDL	Raw Conc.	Reported Conc.	Lab Flag	Unite
~BW	Element Cyanide	ID(time) 1433	0.01	0.005	-0.0009	0.005	Lab Flag	Units mg/L
	. ,				2.2200		-	
		1		Raw		Reported		
ccv	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	nits
	Cyanide	1442	0.15	0.1448	96.533	97	90	110
					Raw	Reported		
ССВ	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cyanide	1443	0.01	0.005	-0.0018	0.005	U	mg/L
		ı						
				Raw		Reported		
ICV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	
	Cyanide	0954	0.15	0.1364	90.933	91	90	110
		i			Raw	Reported		
ICB	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cyanide	0955	0.01	0.005	-0.0014	0.005	U	mg/L
		i						
					Raw	Reported		
PBW	Element	ID(time)	RL	MDL	Conc.	Conc.	Lab Flag	Units
	Cyanide	0957	0.01	0.005	-0.0018	0.005	U	mg/L
		1		Raw		Reported		
ccv	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	
	Cyanide	1008	0.15	0.1594	106.267	106	90	110
		1			Raw	Reported		
ССВ	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cyanide	1009	0.01	0.005	-0.0014	0.005	U	mg/L
		ı						
		1		Raw		Reported		
CCV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	
	Cyanide	1022	0.15	0.1506	100.400	100	90	110
		ı						
		1			Raw	Reported		
ССВ	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cyanide	1023	0.01	0.005	-0.0014	0.005	U	mg/L
		ı						
		1		Raw		Reported		
CCV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	
	Cyanide	1045	0.15	0.148	98.667	99	90	110
		1						
		1			Raw	Reported		
CCB	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cyanide	1046	0.01	0.005	-0.0014	0.005	U	mg/L
		i						
		1		Raw		Reported		
CCV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	
	Cyanide	1058	0.15	0.144	96.000	96	90	110
		i						
		1			Raw	Reported		
ССВ	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cyanide	1059	0.01	0.005	-0.0014	0.005	U	mg/L

Level 4 Verification Spreadsheet for Metals (Page 15 of 19)

SDG BHB04 - Cyanide

Matrix Spikes (MS)
Client Sample ID: 7027671 MS

		Raw	Raw	MS	MSD			Reported	Reported					
	Sample	MS	MSD	Spike	Spike	MS	MSD	MS	MSD	% I	Rec.		Reported	RPD
Element	Result	Result	Result	Amount	Amount	% Rec.	% Rec.	% Rec.	% Rec.	Lir	nits	RPD	RPD	Limits
Cyanide	0.005	0.005	n/a	0.2	n/a	0.000	n/a	0	n/a	83	111	n/a	n/a	20

Duplicates (Dup)

Client Sample ID: 7027671

Raw Raw

	Raw	Raw				
	Sample	Dup		Reported	RPD	
Element	Result	Result	RPD	RPD	Limits	
Cvanide	0	0	N/A	N/A	20	_

Comment: RPD is not applicable (N/A), sample concentrations less than five times the PQL of 5 µg/l.

<u>Laboratory Control Samples</u>

Element	True	Raw Found	% Rec.	Reported % Rec.	Lir	nits
Cyanide	0.2	0.19	95.000	95	80	120

		Raw		Reported		
Element	True	Found	% Rec.	% Rec.	Lin	nits
Cyanide	0.2	0.2	100.000	101	80	120

SDG BHB09 - Chromium

Calibration Verification

	ation Verif							
		1						
			_	Raw		Reported		
ICV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	
	Cr	1855	600	595.93	99.322	99.3	90	110
		i			Raw	D		
IOD	F1	ID(s)	RI	IDL	Conc.	Reported Conc.	1 -1- 51	Units
ICB	Element	ID(time)	15	1.6	0.17	1.6	Lab Flag	ug/l
	GI	1009	13	1.0	0.17	1.0	U	ugn
		i						
				Raw		Reported		
CCV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	its
	Cr	1915	500	493.28	98.656	98.7	90	110
					Raw	Reported		
CCB	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cr	1919	15	1.6	-0.07	1.6	U	ug/l
					_			
		In (c)			Raw	Reported		
PBW	Element Cr	ID(time)	RL 15	MDL	Conc.	Conc.	Lab Flag	Units
	ur	1923	15	1.1	0.22	1.1	U	µg/l
				Raw		Reported		
ccv	Element	ID(time)	True	Found	% Rec.	% Rec.	Lim	its
	Cr	2003	500	502.31	100,462	100.5	90	110
		I						
					Raw	Reported		
CCB	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
	Cr	2007	15	1.6	-0.02	1.6	U	ug/l
		100 (c)	_	Raw		Reported		
CCV	Element Cr	ID(time) 2052	True 500	Found 503.37	% Rec. 100.674	% Rec.	Lim 90	110
	Ci	2002	300	303.37	100.674	100.7	90	110
		1						
					Raw	Reported		
ССВ	Element	ID(time)	RL	IDL	Raw Conc.	Reported Conc.	Lab Flag	Units
ССВ	Element Cr	ID(time)	RL	IDL 1.6		Reported Conc.	Lab Flag	
ССВ					Conc.	Conc.		Units ug/l
ССВ					Conc.	Conc.		
ССВ				1.6 Raw	Conc.	Conc. 1.6 Reported		
CCB	Cr	2056	15	1.6 Raw Found	0.33 % Rec.	1.6 Reported % Rec.	U	ug/l
	Cr	2056	15	1.6 Raw	0.33	Conc. 1.6 Reported	U	ug/l
	Cr	2056	15	1.6 Raw Found	0.33 % Rec.	1.6 Reported % Rec.	U	ug/l
	Cr	2056	15	1.6 Raw Found	0.33 % Rec. 100.846	Conc. 1.6 Reported % Rec. 100.8	U	ug/l
ccv	Cr Element Cr	2056 ID(time) 2138	15 True 500	1.6 Raw Found 504.23	Conc. 0.33 % Rec. 100.846	Reported % Rec.	U Lim 90	ug/l its 110
	Element Cr	2056 ID(time) 2138 ID(time)	True 500	Raw Found 504.23	% Rec. 100.846	Reported % Rec. 100.8 Reported Conc.	Lim 90 Lab Flag	ug/l its 110 Units
ccv	Cr Element Cr	2056 ID(time) 2138	15 True 500	1.6 Raw Found 504.23	Conc. 0.33 % Rec. 100.846	Reported % Rec.	U Lim 90	ug/l its 110
ccv	Element Cr	2056 ID(time) 2138 ID(time)	True 500	Raw Found 504.23	% Rec. 100.846	Reported % Rec. 100.8 Reported Conc.	Lim 90 Lab Flag	ug/l its 110 Units
ccv	Element Cr	2056 ID(time) 2138 ID(time)	True 500	Raw Found 504.23	% Rec. 100.846	Reported % Rec. 100.8 Reported Conc.	Lim 90 Lab Flag	ug/l its 110 Units
ccv	Element Cr	2056 ID(time) 2138 ID(time)	True 500	Raw Found 504.23	% Rec. 100.846	Reported % Rec. 100.8 Reported Conc.	Lim 90 Lab Flag	ug/l its 110 Units
ccv	Element Cr	2056 ID(time) 2138 ID(time)	True 500	1.6 Raw Found 504.23	% Rec. 100.846	Reported % Rec. 100.8 Reported Conc. 1.6	Lim 90 Lab Flag U	ug/l its 110 Units
CCV	Element Cr Element Cr	ID(time) 2138 ID(time) 2142	15 True 500 RL 15	1.6 Raw Found 504.23 IDL 1.6	% Rec. 100.846 Raw Conc. 0.01	Reported % Rec. 100.8 Reported Conc. 1.6	Lim 90 Lab Flag U	ug/l its 110 Units
CCV	Element Cr Element Cr	ID(time) 2138 ID(time) 2142 ID(time)	15 True 500 RL 15	Raw Found 504.23 IDL 1.6	% Rec. 100.846 Raw Conc. 0.01 % Rec. 98.077	Conc. 1.6 Reported % Rec. 100.8 Reported Conc. 1.6 Reported % Rec. 98.1	Lim 90 Lab Flag U	ug/l its 110 Units ug/l
CCB	Element Cr Element Cr Cr Cr	ID(time) 2138 ID(time) 2142 ID(time) 1858 ID(time) 1858 ID(time) 1858 ID(time) ID(time	True 500 RL 15 True 600	1.6 Raw Found 504.23 IDL 1.6 Raw Found 588.46	Conc. 0.33 % Rec. 100.846 Raw Conc. 0.01 % Rec. 98.077 Raw	Conc. 1.6 Reported % Rec. 100.8 Reported Conc. 1.6 Reported % Rec. 98.1 Reported % Rec.	Lim 90 Lab Flag U Lim 90	ug/l its 110 Units ug/l
CCV	Element Cr Element Cr Element Cr	ID(time) 2138 ID(time) 2142 ID(time) 1858 ID(time)	True 500 RL 15 True 600	1.6 Raw Found 504.23 IDL 1.6 Raw Found 588.46	Conc. 0.33 % Rec. 100.846 Raw Conc. 0.01 % Rec. 98.077 Raw Conc.	Reported % Rec. 100.8 Reported Conc. 1.6 Reported Conc. 1.6 Reported % Rec. 98.1	Lim 90 Lab Flag U Lim 90	ug/l its 110 Units ug/l its 110 Units
CCB	Element Cr Element Cr Cr Cr	ID(time) 2138 ID(time) 2142 ID(time) 1858 ID(time) 1858 ID(time) 1858 ID(time) ID(time	True 500 RL 15 True 600	1.6 Raw Found 504.23 IDL 1.6 Raw Found 588.46	Conc. 0.33 % Rec. 100.846 Raw Conc. 0.01 % Rec. 98.077 Raw	Conc. 1.6 Reported % Rec. 100.8 Reported Conc. 1.6 Reported % Rec. 98.1 Reported % Rec.	Lim 90 Lab Flag U Lim 90	ug/l its 110 Units ug/l
CCB	Element Cr Element Cr Element Cr	ID(time) 2138 ID(time) 2142 ID(time) 1858 ID(time)	True 500 RL 15 True 600	1.6 Raw Found 504.23 IDL 1.6 Raw Found 588.46	Conc. 0.33 % Rec. 100.846 Raw Conc. 0.01 % Rec. 98.077 Raw Conc.	Reported % Rec. 100.8 Reported Conc. 1.6 Reported Conc. 1.6 Reported % Rec. 98.1	Lim 90 Lab Flag U Lim 90	ug/l its 110 Units ug/l its 110 Units
CCB	Element Cr Element Cr Element Cr	ID(time) 2138 ID(time) 2142 ID(time) 1858 ID(time)	True 500 RL 15 True 600	1.6 Raw Found 504.23 IDL 1.6 Raw Found 588.46 IDL 1.6	Conc. 0.33 % Rec. 100.846 Raw Conc. 0.01 % Rec. 98.077 Raw Conc.	Conc. 1.6 Reported % Rec. 100.8 Reported Conc. 1.6 Reported % Rec. 98.1 Reported Conc. 1.6	Lim 90 Lab Flag U Lim 90	ug/l its 110 Units ug/l its 110 Units
CCB	Element Cr Element Cr Element Cr Cr	D(time) 2142 D(time) 1858 D(time) 1902	True 500 RL 15 True 600 RL 15	Raw Found 504.23 IDL 1.6 Raw Found 588.46 IDL 1.6	% Rec. 100.846 Raw Conc. 0.01 % Rec. 98.077 Raw Conc0.84	Reported % Rec. 100.8 Reported Conc. 1.6 Reported % Rec. 98.1 Reported % Rec. 98.1 Reported Conc. 1.6	Lim 90 Lab Flag U Lim 90 Lab Flag U	ug/l its 110 Units ug/l its 110 Units ug/l
CCB	Cr Element Cr Element Cr Element Cr Element Cr Element Element Element Element	D(time) 150	True 500 RL 15 True 600 RL 15	1.6 Raw Found 504.23 IDL 1.6 Raw Found 588.46 IDL 1.6 Raw Found Found Found Raw Found	% Rec. 100.846 Raw Conc. 0.01 % Rec. 98.077 Raw Conc0.84	Conc. 1.6 Reported % Rec. 100.8 Reported Conc. 1.6 Reported % Rec. 98.1 Conc. 1.6 Reported Conc. 1.6	Lim 90 Lab Flag U Lim 90 Lab Flag U	ug/l its 110 Units ug/l 110 Units ug/l
CCB	Element Cr Element Cr Element Cr Cr	D(time) 2142 D(time) 1858 D(time) 1902	True 500 RL 15 True 600 RL 15	Raw Found 504.23 IDL 1.6 Raw Found 588.46 IDL 1.6	% Rec. 100.846 Raw Conc. 0.01 % Rec. 98.077 Raw Conc0.84	Reported % Rec. 100.8 Reported Conc. 1.6 Reported % Rec. 98.1 Reported % Rec. 98.1 Reported Conc. 1.6	Lim 90 Lab Flag U Lim 90 Lab Flag U	ug/l its 110 Units ug/l its 110 Units ug/l
CCB	Cr Element Cr Element Cr Element Cr Element Cr Element Element Element Element	D(time) 150	True 500 RL 15 True 600 RL 15	1.6 Raw Found 504.23 IDL 1.6 Raw Found 588.46 IDL 1.6 Raw Found Found Found Raw Found	% Rec. 100.846 Raw Conc. 0.01 % Rec. 98.077 Raw Conc0.84	Conc. 1.6 Reported % Rec. 100.8 Reported Conc. 1.6 Reported % Rec. 98.1 Conc. 1.6 Reported Conc. 1.6	Lim 90 Lab Flag U Lim 90 Lab Flag U	ug/l its 110 Units ug/l 110 Units ug/l
CCB	Cr Element Cr Element Cr Element Cr Element Cr Element Element Element Element	D(time) 150	True 500 RL 15 True 600 RL 15	1.6 Raw Found 504.23 IDL 1.6 Raw Found 588.46 IDL 1.6 Raw Found Found Found Raw Found	% Rec. 100.846 Raw Conc. 0.01 % Rec. 98.077 Raw Conc0.84	Conc. 1.6 Reported % Rec. 100.8 Reported Conc. 1.6 Reported % Rec. 98.1 Reported Conc. 1.6 Reported % Rec. 98.1	Lim 90 Lab Flag U Lim 90 Lab Flag U	ug/l its 110 Units ug/l 110 Units ug/l
CCV CCB	Element Cr Element Cr Element Cr Element Cr Element Cr	ID(time) 2138 ID(time) 2142 ID(time) 1858 ID(time) 1902 ID(time) 1917 ID(time) 1917 ID(time) 1917 ID(time) 1917 ID(time) 1917 ID(time) I	True 500 RL 15 True 600 RL 15	1.6 Raw Found 504.23 IDL 1.6 Raw Found 588.46 IDL 1.6 Raw Found 491.34	% Rec. 100.846 Raw Conc. 0.01 % Rec. 98.077 Raw Conc0.84 % Rec. 98.268	Conc. 1.6 Reported % Rec. 100.8 Reported Conc. 1.6 Reported % Rec. 98.1 Reported Conc. 1.6 Reported % Rec. 98.3	Lim 90 Lab Flag U Lim 90 Lab Flag U	Units
CCB	Cr Element Cr Element Cr Element Cr Element Cr Element Element Element Element	D(time) 150	True 500 RL 15 True 600 RL 15	1.6 Raw Found 504.23 IDL 1.6 Raw Found 588.46 IDL 1.6 Raw Found Found Found Raw Found	% Rec. 100.846 Raw Conc. 0.01 % Rec. 98.077 Raw Conc0.84	Conc. 1.6 Reported % Rec. 100.8 Reported Conc. 1.6 Reported % Rec. 98.1 Reported Conc. 1.6 Reported % Rec. 98.1	Lim 90 Lab Flag U Lim 90 Lab Flag U	ug/l its 110 Units ug/l 110 Units ug/l

(ICV) Initial Calibration Verification
(ICB) Initial Calibration Blank
(ICCB) Continuing Calibration Blank
(ICCB) Continuing Calibration Blank
(ICCV) Continuing Calibration Verification
(ICCV) Continuing Calibration Verification
(IMCV) Method Detection Limit
(IMCV) Method Detection Limit
(ICV) Not Applicable

		I														
					Raw	Reported										
N	Element	ID(time)	RL	MDL	Conc.	Conc.	Lab Flag	Units	_							
	Cr	1925	15	1.1	-0.22	1.1	U	μg/l								
				Raw		Reported										
,	Element	ID(time)	True	Found	% Rec.	% Rec.	Lin	nits								
	Cr	2003	500	491.97	98.394	98.4	90	110	-							
		1			Raw	Reported										
3	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units	_							
	Cr	2007	15	1.6	-0.96	1.6	U	ug/l								
				Raw		Reported										
/	Element	ID(time)	True	Found	% Rec.	% Rec.	Lin		-							
	Cr	2051	500	495.68	99.136	99.1	90	110								
					Raw	Reported										
3	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units	_							
	Cr	2054	15	1.6	-0.43	1.6	U	ug/l								
				Raw		Reported										
/	Element	ID(time) 2137	True 500	Found 495.03	% Rec. 99.006	% Rec.	Lim 90	110	-							
		1	- 000	-100.00	55.550	- 00	- 55									
					Raw	Reported										
3	Element Cr	ID(time) 2140	RL 15	1.6	-0.88	Conc.	Lab Flag	Units ug/l	-							
		CK Gampi	es (ICS)		Renerted											
ı	Element	True	Raw Found	% Rec.	Reported % Rec.		nits									
,			Raw	% Rec. 98.440	Reported % Rec. 98.4	Lin 80	nits 120									
	Element Cr	True 500	Raw Found 492.2	98.440	% Rec. 98.4 Reported	80	120									
	Element Cr	True 500	Raw Found 492.2 Raw Found	98.440 % Rec.	% Rec. 98.4 Reported % Rec.	80 Lin	120									
	Element Cr	True 500	Raw Found 492.2	98.440	% Rec. 98.4 Reported	80	120									
	Element Cr	True 500	Raw Found 492.2 Raw Found 494.8	98.440 % Rec.	% Rec. 98.4 Reported % Rec. 99	80 Lin	120									
	Element Cr Element Cr	True 500	Raw Found 492.2 Raw Found 494.8	98.440 % Rec. 98.960	% Rec. 98.4 Reported % Rec. 99	80 Lin 80	120 nits 120									
	Element Cr	True 500	Raw Found 492.2 Raw Found 494.8	98.440 % Rec.	% Rec. 98.4 Reported % Rec. 99	80 Lin 80	120									
	Element Cr Element Cr	True 500 True 500	Raw Found 492.2 Raw Found 494.8	98.440 % Rec. 98.960 % Rec.	% Rec. 98.4 Reported % Rec. 99 Reported % Rec.	80 Lin 80	120 nits 120									
	Element Cr Element Cr Cr	True 500	Raw Found 492.2 Raw Found 494.8 Raw Found 485.7	98.440 % Rec. 98.960 % Rec. 97.140	% Rec. 98.4 Reported % Rec. 99 Reported % Rec. 97.1	80 Lin 80 Lin 80	120 nits 120 nits 120									
al al	Element Cr Element Cr	True 500 True 500	Raw Found 492.2 Raw Found 494.8 Raw Found 485.7	98.440 % Rec. 98.960 % Rec.	% Rec. 98.4 Reported % Rec. 99 Reported % Rec. 97.1	80 Lin 80	120 nits 120									
	Element Cr Element Cr	True 500 True 500	Raw Found 492.2 Raw Found 494.8 Raw Found 485.7	98.440 % Rec. 98.960 % Rec.	% Rec. 98.4 Reported % Rec. 99 Reported % Rec. 97.1	80 Lin 80 Lin 80	120 nits 120									
	Element Cr Element Cr Element Cr Spikes/Max	True 500 True 500 True 500 True 500	Raw Found 494.8 Raw Found 494.8 Raw Found 485.7 Raw Found 493.9	98.440 % Rec. 98.960 % Rec. 97.140 % Rec. 98.780	% Rec. 98.4 Reported % Rec. 99 Reported % Rec. 97.1 Reported % Rec. 98.8	80 Lin 80 Lin 80	120 nits 120 nits 120									
,	Element Cr Element Cr Element Cr	True 500 True 500 True 500 True 500	Raw Found 494.8 Raw Found 494.8 Raw Found 485.7 Raw Found 493.9	98.440 % Rec. 98.960 % Rec. 97.140 % Rec. 98.780	% Rec. 98.4 Reported % Rec. 99 Reported % Rec. 97.1 Reported % Rec. 98.8	Lin 80 Lin 80	120 nits 120 nits 120									
	Element Cr Element Cr Element Cr Spikes/Ma	True 500 True 500 True 500 True 500	Raw Found 494.8 Raw Found 494.8 Raw Found 485.7 Raw Found 493.9	98.440 % Rec. 98.960 % Rec. 97.140 % Rec. 98.780	% Rec. 98.4 Reported % Rec. 99 Reported % Rec. 97.1 Reported % Rec. 98.8	80 Lin 80 Lin 80	120 nits 120 nits 120	MSD	MS	Reported MSD		% Rec.			Reported	
	Element Cr Element Cr Element Cr Cr Element Cr Element Cr Element Cr	True 500 True 500 True 500 True 500 True 500 Sample ID:	Raw Found 492.2 Raw Found 494.8 Raw Found 485.7 Raw Found 493.9 Duplicat 706841381 Raw MS Result	98.440 % Rec. 98.960 % Rec. 97.140 % Rec. 98.780 Res (MS/N	% Rec. 98.4 Reported % Rec. 99 Reported % Rec. 97.1 Reported % Rec. 97.8 Spike Amount	80 Lin 80 Lin 80 Lin 80 MSD Spike Amount	120 nits 120 nits 120 nits 120 MS % Rec.	% Rec.	MS % Rec.	MSD % Rec.	- 1	Limits		RPD	Reported RPD	
	Element Cr Element Cr Element Cr Cr Element Cr Cr Cr Cr Cr Cr Cr Cr Cr Cr Cr Cr Cr	True 500 True 500 True 500 True 500 Sample ID:	Raw Found 494.8 Raw Found 494.8 Raw Found 485.7 Raw Found 493.9 E Duplicat 706841381	98.440 % Rec. 98.960 % Rec. 97.140 % Rec. 98.780 Res (MS/N	% Rec. 98.4 Reported % Rec. 99 Reported % Rec. 97.1 Reported % Rec. 98.8	Lin 80 Lin 80 Lin 80 Solution 80	120 nits 120 120 nits 120 120 MS		MS	MSD		Limits	120	RPD 1.237	Reported RPD 1	
	Element Cr Element Cr Element Cr Cr Element Cr Element Cr Element Cr	True 500 True 500 True 500 True 500 Atrix Spike ple ID: Sample Result 0	Raw Found 492.2 Raw Found 494.8 Raw Found 485.7 Raw Found 493.9 Duplicat 706841381 Raw MS Result	98.440 % Rec. 98.960 % Rec. 97.140 % Rec. 98.780 Res (MS/N KG Raw MSD Result 207.38	% Rec. 98.4 Reported % Rec. 99 Reported % Rec. 97.1 Reported % Rec. 97.8 Spike Amount	80 Lin 80 Lin 80 Lin 80 MSD Spike Amount	120 nits 120 nits 120 nits 120 MS % Rec.	% Rec.	MS % Rec.	MSD % Rec.	- 1	Limits	1120		Reported RPD 1	
,	Element Cr Element Cr Element Cr Cr Element Cr Element Cr Element Cr Element Cr	True 500 True 500 True 500 True 500 True 500 Sample Result 0	Raw Found 492.2 Raw Found 494.8 Raw Found 495.7 Raw Found 495.7 Raw Found 493.9 **Provided Found	98.440 % Rec. 98.960 % Rec. 97.140 % Rec. 98.780 Result 207.38	% Rec. 98.4 Reported % Rec. 99 Reported % Rec. 97.1 Reported % Rec. 98.8 Spike Amount 200 MS	80 Lin 80 Lin 80 MSD Spike Amount 200	120 nits 120 120 nits 120 MS % Rec. 102.415	% Rec. 103.690	MS % Rec. 102	MSD % Rec. 104	81	Limits	120		RPD 1	L
,	Element Cr Element Cr Element Cr Cr Element Cr Element Cr Element Cr Element Cr	True 500 True 500 True 500 True 500 Atrix Spike ple ID: Sample Result 0	Raw Found 492.2 Raw Found 494.8 Raw Found 494.8 Raw Found 493.9 Duplicat 493.9 Duplicat 204.83 Raw MS Result 204.83	98.440 % Rec. 98.960 % Rec. 97.140 % Rec. 98.780 Res (MS/N) KG Raw MSD Result 207.38	% Rec. 98.4 Reported % Rec. 99 Reported % Rec. 97.1 Reported % Rec. 98.8 ISD) MS Spike Amount 200	80 Lin 80 Lin 80 Spike Amount 200	120 nits 120 nits 120 nits 120 MS % Rec.	% Rec.	MS % Rec. 102	MSD % Rec. 104	81	Limits	120		Reported RPD 1	F Li

SDG BHB09 - Chromium

Duplicates (Dup)

Client Sample ID: 7068413BKG

	Raw	Raw			
	Sample	Dup		Reported	RPD
Element	Result	Result	RPD	RPD	Limits
Cr	0	0	N/A	0	20

Comment: RPD is not applicable (N/A), sample concentrations less than five times the PQL of 5 µg/l.

Client Sample ID: 7068416BKG

Element	Raw Sample Result	Raw Dup Result	RPD	Reported RPD	RPD Limits
Cr	6.9	7.6	N/A	0	20

Comment: RPD is not applicable (N/A), sample concentrations less than five times the PQL of 5 µg/l.

<u>Laboratory Control Samples</u>

Element	True	Raw Found	% Rec.	Reported % Rec.	Lin	nits
Cr	200	205.85	102.925	103	80	120
Element	True	Raw Found	% Rec.	Reported % Rec.	Lin	nits

Serial Dilutions

Client Sample ID: 7068413BKG

C+	^	^	NI/A	NI/A	10	-
Element	Result	Result	(%D)	% Rec.	(%D)	
	Sample	Ser. Dil.		Reported	Limits	
	Raw	Raw				
Onem oum	pic ib.	TOOOTTODITE	•			

Comment: Serial dilution is not applicable (N/A), sample concentrations less than fifty times the MDL.

Client Sample ID: 7068416BKG

	Raw	Raw				
	Sample	Ser. Dil.		Reported	Limits	
Element	Result	Result	(%D)	% Rec.	(%D)	
Cr	6.9	0	N/A	N/A	10	

Comment: Serial dilution is not applicable (N/A), sample concentrations less than fifty times the MDL.

Level 4 Verification Spreadsheet for Metals (Page 19 of 19)

SDG BHB09 - Cyanide

Calibration Verification

ICV	Element	ID(time)	True	Raw Found	% Rec.	Reported % Rec.	Lim	its
	Cyanide	1137	0.15	0.1554	103.600	104	90	110
	•							
					Raw	Reported		
ICB	Element	ID(time)	RL	IDL	Raw Conc.	Reported Conc.	Lab Flag	Units

(ICV) Initial Calibration Verification (ICB) Initial Calibration Blank (CCB) Continuing Calibration Blank (CCB) Continuing Calibration Blank
(PBW) Preparation Blank
(CCV) Continuing Calibration Verification
(IDL) Instrument Detection Limit
(MDL) Method Detection Limit
(MIL) Method Detection Limit
(RI) Reporting Limit
(N/A) Not Applicable

PBW	Element	ID(time)	RL	MDL	Raw Conc.	Reported Conc.	Lab Flag	Units
	Cyanide	1141	0.01	0.005	0.0013	0.005	U	mg/L
ccv	Element	ID(time)	True	Raw Found	% Rec.	Reported % Rec.	Limits	

	Cyanide	1151	0.15	0.1408	93.867	94	90	110
					D	D		
					Raw	Reported		
ССВ	Element	ID(time)	RL	IDL	Conc.	Conc.	Lab Flag	Units
ССВ	Element Cyanide	ID(time) 1153	RL 0.01	IDL 0.005			Lab Flag	Units mg/L
ССВ					Conc.	Conc.		
CCB					Conc.	Conc.		

			Raw Reported					
CCV	Element	ID(time)	True	Found	% Rec.	% Rec.	Lir	nits
	Cyanide	1205	0.15	0.1577	105.133	105	90	110

ССВ	Element	ID(time)	RL	IDL	Raw Conc.	Reported Conc.	Lab Flag	Units
	Cyanide	1206	0.01	0.005	0.0011	0.005	U	mg/L

Matrix Spikes (MS)
Client Sample ID: 7068410 MS

		Sample	Raw MS	Raw MSD	MS Spike	MSD	MSD Reported Reported Spike MS MSD MS MSD % Rec. Reported RPD							PPD	
		Janipie	INIO	INIOD	Opike	Opike	IVIO	INIOD	1410	HIJD	/0 1	tec.		reported	INI D
E	Element	Result	Result	Result	Amount	Amount	% Rec.	% Rec.	% Rec.	% Rec.	Lin	nits	RPD	RPD	Limits
(Cyanide	0.005	0.16	n/a	0.2	n/a	77.500	n/a	78	n/a	83	111	n/a	n/a	20

Duplicates (Dup)

Client Sam	ple ID:	7068410				
Element	Raw Sample Result	Raw Dup Result	RPD	Reported RPD	RPD Limits	
Cvanide	0	0	N/A	N/A	20	

Comment: RPD is not applicable (N/A), sample concentrations less than five times the PQL of 5 µg/l.

Laboratory Control Samples

	Raw Reported					
Element	True	Found	% Rec.	% Rec.	Lin	nits
Cyanide	0.2	0.19	95.000	95	80	120